Medical Professionals
Opiate Toolkit 2017

Find more opiate prevention resources at StarkMHAR.org/MedicalResources

OPIATE HOTLINE
330-454-HELP (4357)
Community information, education, support and connection to services anytime, day or night

prepared by

STARK COUNTY
Mental Health & Addiction Recovery
StarkMHAR.org
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4. SOAPP
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45. Counterfeit Norco Poisoning Outbreak- San Francisco Bay Area, California
46. Vital Signs: Variation Among States in Prescribing of Opioid Pain Relievers and Benzodiazepines
47. Prescription Opioids and Heroin
48. Fentanyl Law Enforcement Submissions and Increases in Synthetic Opioid-Involved Overdose Deaths
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Screening, Brief Intervention and Referral to Treatment (SBIRT)

What is SBIRT?

SBIRT stands for Screening, Brief Intervention, and Referral to Treatment.

- **Screening** — a healthcare professional assesses a patient for risky substance use behaviors using standardized screening tools.
- **Brief Intervention** — a healthcare professional engages a patient showing risky substance use behaviors in a short conversation, providing feedback and advice.
- **Referral to Treatment** — a healthcare professional provides a referral to therapy or additional treatment to patients whose screening indicates a need for additional services.

Beyond connecting individuals with substance dependence to treatment options, using SBIRT as an early intervention can reduce risky alcohol and drug use before it leads to more severe consequences or dependence. For example, screening patients in emergency settings makes it possible to use their substance use-related injury or illness as motivation to change.

There are many evidence based SBIRT screening tools available which can be adapted easily to almost any health or specialty setting. In the pages that follow are some sample SBIRT screening tools.

How effective is SBIRT?

Brief interventions with patients can promote significant, lasting reductions in risky use of alcohol and other drugs:

- A review of New Mexico’s SBIRT program by Gryczynski et al. (2011) found that participants reported a significant decrease in the frequency of illicit drug use, alcohol use, and alcohol intoxication 6 months after receipt of SBIRT services.¹

- Madras et al. (2009) found an almost 68-percent reduction in illicit drug use over a 6-month period among people who had received SBIRT services. In addition to significantly reducing illicit drug use, SBIRT also reduced individuals’ drinking. Among those who reported heavy drinking at baseline, the rate of heavy alcohol use was almost 39 percent lower at the 6-month follow-up. Those who received brief interventions or referrals to specialty treatment also reported other improvements, including fewer arrests, more stable housing situations, improved employment status, fewer emotional problems, and improved overall health.²

- A study of Washington State’s SBIRT (WASBIRT) program found that among high risk-users of prescription opioids, at a six-month follow-up, there was a 41% reduction in the days of drug use for individuals who received only a brief intervention, and a 54% reduction for the individuals who received a brief intervention, followed by brief therapy or chemical dependency treatment.³

- A World Health Organization study of the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) by Humeniuk et al. (2008) found that 82.8% of all participants who received the brief intervention at baseline reported attempting to cut down on their substance use as a result of the feedback and information they had received.⁴

- SBIRT is a cost effective intervention. Fleming et al. (2000) estimate the SBIRT benefit-cost ratio is 5.6:1, or $5.6 in total benefit for every $1 invested.\(^v\)

**Reimbursement for Screening**

SAMHSA is working with the Centers for Medicare and Medicaid Services (CMS) to educate practitioners about the importance of SBIRT coverage and the Medicare billing rules around these services. In the case of Medicare, SBIRT services are defined as alcohol and/or substance (other than tobacco) abuse structured assessment (e.g., AUDIT, DAST) and brief intervention. **Note: Starting July 1, 2013, Ohio Medicaid will reimburse for screening services.**

Reimbursement for screening and brief intervention is available through commercial insurance CPT codes, Medicare G codes, and Medicaid HCPCS codes (now available through Ohio Medicaid). Information regarding these codes can be found in the table below.

<table>
<thead>
<tr>
<th>Payer</th>
<th>Code</th>
<th>Description</th>
<th>Fee Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial</td>
<td>CPT</td>
<td>Alcohol and/or substance abuse structured screening and brief intervention</td>
<td>$33.41</td>
</tr>
<tr>
<td>Insurance</td>
<td>99408</td>
<td>services; 15 to 30 minutes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CPT</td>
<td>Alcohol and/or substance abuse structured screening and brief intervention</td>
<td>$65.51</td>
</tr>
<tr>
<td></td>
<td>99409</td>
<td>services; greater than 30 minutes</td>
<td></td>
</tr>
<tr>
<td>Medicare</td>
<td>G0396</td>
<td>Alcohol and/or substance abuse structured screening and brief intervention</td>
<td>$29.42</td>
</tr>
<tr>
<td></td>
<td>G0397</td>
<td>services; 15 to 30 minutes</td>
<td>$57.69</td>
</tr>
<tr>
<td>Medicaid</td>
<td>H0049</td>
<td>Alcohol and/or drug screening</td>
<td>$24.00</td>
</tr>
<tr>
<td></td>
<td>H0050</td>
<td>Alcohol and/or drug service, brief intervention, per 15 minutes</td>
<td>$48.00</td>
</tr>
</tbody>
</table>

Billing information provided courtesy of the Substance Abuse & Mental Health Services Administration: [http://www.samhsa.gov/prevention/SBIRT/coding.aspx](http://www.samhsa.gov/prevention/SBIRT/coding.aspx)


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\(^1\) Gryczynski, J., et al., - The relationship between services delivered and substance use outcomes in New Mexico’s Screening, Brief Intervention, Referral and Treatment (SBIRT) Initiative. Journal of Drug and Alcohol Dependence, 2011 Nov 1.


\(^4\) [http://www.who.int/substance_abuse/activities/assist_technicalreport_phase3_final.pdf](http://www.who.int/substance_abuse/activities/assist_technicalreport_phase3_final.pdf)

\(^5\) [http://journals.lww.com/lww-medicalcare/Abstract/2000/01000/Benefit_Cost_Analysis_of_Brief_Photograph_Advice.3.aspx](http://journals.lww.com/lww-medicalcare/Abstract/2000/01000/Benefit_Cost_Analysis_of_Brief_Photograph_Advice.3.aspx)

SBIRT Screening Tools

1. Screening Brief Intervention Referral to Treatment: Assessment Orders. Kettering Health Network. For more information contact Kettering Medical Center, Medical Education Dept. 4NW, 3535 Southern Blvd. Kettering, OH 45429, (937) 298-3399.

2. The CRAFFT Screening Questions. The CRAFFT is a behavioral health screening tool for use with children under the age of 21 and is recommended by the American Academy of Pediatrics' Committee on Substance Abuse for use with adolescents. For more information visit: http://www.ceasar-boston.org/clinicians/crafft.php

3. NIDA Quick Screen. The NIDA Quick Screen and NIDA-modified ASSIST are appropriate for patients age 18 or older. You may deliver it as an interview and record patient responses, or read the questions aloud and have the patient fill out responses on a written questionnaire. For more information visit: http://www.drugabuse.gov/publications/resource-guide/nida-quick-screen
Screening Brief Intervention Referral to Treatment:
Assessment Orders

Yes / No  1  In the past 3 months have you had more than:
*(Men) 4 drinks in one day?
*(Women) 3 drinks in one day?
*(Age 65+) 3 drinks in one day?

Yes / No  2  In the last 12 months, did you ever drink alcohol or use drugs more than you meant to?

Yes / No  3  In the last 12 months, did you ever feel you should cut down on your drinking or drug use?

In the last 12 months, did you use:

Yes / No  4  * Marijuana?
Yes / No  5  * Another recreational drug?
Yes / No  6  * A prescription pain killer, stimulant or sedative more than recommended?

Any "Yes" answers = "At Risk" designation

ORDERS for "At Risk" designation:

☐ SBIRT Assessment includes:

Urine Drug Abuse Screen (inc. semi-quantitative)
Serum Drug Abuse Screen
Height & Weight

Physician signature: __________________________________________ RN signature: _________________________________________

Date/Time: ________________________  Date/Time: ________________________

RightFAX to SBIRT Team: 522-7570
RightFAX (Internal): 27570
The CRAFFT Screening Questions
Please answer all questions honestly; your answers will be kept confidential.

**Part A**
During the PAST 12 MONTHS, did you:

1. Drink any alcohol (more than a few sips)?
2. Smoke any marijuana or hashish?
3. Use anything else to get high?

"anything else" includes illegal drugs, over the counter and prescription drugs, and things that you sniff or "huff"

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you answered NO to ALL (A1, A2, A3) answer only B1 below, then STOP.</td>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
</tr>
<tr>
<td>If you answered YES to ANY (A1 to A3), answer B1 to B6 below.</td>
<td><img src="image3.png" alt="Image" /></td>
<td><img src="image4.png" alt="Image" /></td>
</tr>
</tbody>
</table>

**Part B**

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have you ever ridden in a CAR driven by someone (including yourself) who was “high” or had been using alcohol or drugs?</td>
<td><img src="image5.png" alt="Image" /></td>
<td><img src="image6.png" alt="Image" /></td>
</tr>
<tr>
<td>2. Do you ever use alcohol or drugs to RELAX, feel better about yourself, or fit in?</td>
<td><img src="image7.png" alt="Image" /></td>
<td><img src="image8.png" alt="Image" /></td>
</tr>
<tr>
<td>3. Do you ever use alcohol or drugs while you are by yourself, or ALONE?</td>
<td><img src="image9.png" alt="Image" /></td>
<td><img src="image10.png" alt="Image" /></td>
</tr>
<tr>
<td>4. Do you ever FORGET things you did while using alcohol or drugs?</td>
<td><img src="image11.png" alt="Image" /></td>
<td><img src="image12.png" alt="Image" /></td>
</tr>
<tr>
<td>5. Do your FAMILY or FRIENDS ever tell you that you should cut down on your drinking or drug use?</td>
<td><img src="image13.png" alt="Image" /></td>
<td><img src="image14.png" alt="Image" /></td>
</tr>
<tr>
<td>6. Have you ever gotten into TROUBLE while you were using alcohol or drugs?</td>
<td><img src="image15.png" alt="Image" /></td>
<td><img src="image16.png" alt="Image" /></td>
</tr>
</tbody>
</table>

**CONFIDENTIALITY NOTICE:**
The information on this page may be protected by special federal confidentiality rules (42 CFR Part 2), which prohibit disclosure of this information unless authorized by specific written consent. A general authorization for release of medical information is NOT sufficient.

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CRAFFT Reproduction produced with support from the Massachusetts Behavioral Health Partnership.
NIDA Quick Screen V1.0

Name: ____________________________________________ Sex ( ) F ( ) M Age......

Interviewer________________________ Date ....../....../......

Introduction (Please read to patient)

Hi, I’m __________, nice to meet you. If it’s okay with you, I’d like to ask you a few questions that will help me give you better medical care. The questions relate to your experience with alcohol, cigarettes, and other drugs. Some of the substances we’ll talk about are prescribed by a doctor (like pain medications). But I will only record those if you have taken them for reasons or in doses other than prescribed. I’ll also ask you about illicit or illegal drug use—but only to better diagnose and treat you.

Instructions: For each substance, mark in the appropriate column. For example, if the patient has used cocaine monthly in the past year, put a mark in the “Monthly” column in the “illegal drug” row.

<table>
<thead>
<tr>
<th>NIDA Quick Screen Question:</th>
<th>Never</th>
<th>Once or Twice</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily or Almost Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>· For men, 5 or more drinks a day</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>· For women, 4 or more drinks a day</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tobacco Products</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prescription Drugs for Non-Medical Reasons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illegal Drugs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- If the patient says “NO” for all drugs in the Quick Screen, reinforce abstinence. Screening is complete.
- If the patient says “Yes” to one or more days of heavy drinking, patient is an at-risk drinker. Please see NIAAA website “How to Help Patients Who Drink Too Much: A Clinical Approach” http://pubs.niaaa.nih.gov/publications/Practitioner/CliniciansGuide2005/clinicians_guide.htm, for information to Assess, Advise, Assist, and Arrange help for at risk drinkers or patients with alcohol use disorders
- If patient says “Yes” to use of tobacco: Any current tobacco use places a patient at risk. Advise all tobacco users to quit. For more information on smoking cessation, please see “Helping Smokers Quit: A Guide for Clinicians” http://www.ahrq.gov/clinic/tobacco/clinhlpsmksqt.htm
- If the patient says “Yes” to use of illegal drugs or prescription drugs for non-medical reasons, proceed to Question 1 of the NIDA-Modified ASSIST.

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1 This guide is designed to assist clinicians serving adult patients in screening for drug use. The NIDA Quick Screen was adapted from the single-question screen for drug use in primary care by Saiz et al. (available at http://archinte.ama-assn.org/cgi/reprint/170/13/1155) and the National Institute on Alcohol Abuse and Alcoholism’s screening question on heavy drinking days (available at http://pubs.niaaa.nih.gov/publications/Practitioner/CliniciansGuide2005/clinicians_guide.htm). The NIDA-modified ASSIST was adapted from the World Health Organization (WHO) Alcohol, Smoking and Substance Involvement Screening Test (ASSIST), Version 3.0, developed and published by WHO (available at http://www.who.int/substance Abuse/activities/assist_v3_english.pdf).
SCREENING, BRIEF INTERVENTION, AND REFERRAL TO TREATMENT (SBIRT) SERVICES

ICN 904084 October 2015

Please note: The information in this publication applies to the Medicare Fee-For-Service Program (also known as Original Medicare) and Medicaid. Unique requirements apply to each of these programs. For an overview of the differences, refer to https://www.cms.gov/Medicare-Medicaid-Coordination/Fraud-Prevention/Medicaid-Integrity-Education/Downloads/MedicareMedicaid-infograph[July-2015].pdf on the Centers for Medicare & Medicaid Services (CMS) website.

Screening, Brief Intervention, and Referral To Treatment (SBIRT) services are an evidence- and community-based practice designed to identify, reduce, and prevent problematic substance use disorders.

This fact sheet provides the following information about Medicare and Medicaid coverage of SBIRT services:

- Who may provide SBIRT services;
- When will Medicare/Medicaid cover SBIRT services;
- How must I document SBIRT services;
- How can I bill SBIRT services;
- Dual eligibles; and
- Resources.

NOTE: Medicare also covers Alcohol Misuse Screening and Counseling as a preventive service. For more information, visit https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNMattersArticles/Downloads/MM7633.pdf on the CMS website.

What Is SBIRT?

SBIRT is an early intervention approach that targets individuals with nondependent substance use to provide effective strategies for intervention prior to the need for more extensive or specialized treatment. This approach differs from the primary focus of specialized treatment of individuals with more severe substance use or those who meet the criteria for diagnosis of a substance use disorder.
SBIRT consists of three major components:

1. **Medicare Structured Assessment:** Assessing a patient for risky substance use behaviors using standardized assessment tools; or **Medicaid Screening or screening tools:** Screening a patient for risky substance use behaviors using standardized assessment or screening tools

2. **Brief Intervention:** Engaging a patient showing risky substance use behaviors in a short conversation, providing feedback and advice

3. **Referral to Treatment:** Providing a referral to brief therapy or additional treatment to patients whose assessment or screening shows a need for additional service

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**Benefits of SBIRT Service**

You may easily use SBIRT services in primary care settings, enabling you to systematically screen and assist people who may not seek help for a substance use problem. SBIRT services:

- Reduce health care costs;
- Decrease severity of drug and alcohol use;
- Reduce risk of physical trauma; and
- Reduce the percent of patients who go without specialized treatment.


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**SBIRT Assessment and Screening Tools**

The first component to the SBIRT process is screening. Screening tools include the World Health Organization’s Alcohol Use Disorders Identification Test (AUDIT) Manual and the Drug Abuse Screening Test (DAST). For more information on SBIRT assessment and screening tools, as well as examples of tools, visit [http://www.integration.samhsa.gov/clinical-practice/screening-tools](http://www.integration.samhsa.gov/clinical-practice/screening-tools) on the Internet.

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**SBIRT Under Medicare**

**Who May Provide SBIRT Services Under Medicare?**

Medicare pays for medically reasonable and necessary SBIRT services when you furnish them in physicians’ offices and outpatient hospitals. In these settings, you assess for and identify individuals with, or at-risk for, substance use-related problems and furnish limited interventions/treatment.
Table 1 provides information about the specific qualifications for suppliers authorize under Medicare to furnish SBIRT services.

**Table 1. Health Care Suppliers Eligible to Provide SBIRT Services**

<table>
<thead>
<tr>
<th>Supplier Type</th>
<th>Qualification</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physician</strong></td>
<td>• Legally authorized to practice medicine by the State in which he or she performs his or her services; and&lt;br&gt;• Performs his or her services within the scope of his or her license as defined by State law.</td>
<td>42 Code of Federal Regulations (CFR) 410.20 &lt;br&gt;<a href="https://www.gpo.gov/fdsys/pkg/CFR-2014-title42-vol2/pdf/CFR-2014-title42-vol2-sec410-20.pdf">Link</a>&lt;br&gt;“Medicare Benefit Policy Manual” (Publication 100-02: Chapter 15, Section 30) &lt;br&gt;<a href="https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/bp102c15.pdf">Link</a></td>
</tr>
<tr>
<td><strong>Physician Assistant  (PA)</strong></td>
<td>• Licensed by the State to practice as a PA and one of the following: &lt;br&gt;○ Graduated from a physician assistant educational program accredited by the Accreditation Review Commission on Education for the Physician Assistant (or its predecessor agencies, the Commission on Accreditation of Allied Health Education Programs and the Committee on Allied Health Education and Accreditation); or&lt;br&gt;○ Passed the national certification examination administered by the National Commission on Certification of Physician Assistants (NCCPA).</td>
<td>42 CFR 410.74 &lt;br&gt;<a href="https://www.gpo.gov/fdsys/pkg/CFR-2014-title42-vol2/pdf/CFR-2014-title42-vol2-sec410-74.pdf">Link</a> &lt;br&gt;“Medicare Benefit Policy Manual” (Publication 100-02: Chapter 15, Section 190) &lt;br&gt;<a href="https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/bp102c15.pdf">Link</a></td>
</tr>
</tbody>
</table>
### Table 1. Health Care Suppliers Eligible to Provide SBIRT Services (cont.)

<table>
<thead>
<tr>
<th>Supplier Type</th>
<th>Qualification</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurse Practitioner (NP)</td>
<td>If an NP obtained Medicare billing privileges as an NP for the first time on or <strong>after January 1, 2003</strong>, the NP should:</td>
<td>42 CFR 410.75</td>
</tr>
<tr>
<td></td>
<td>● Be a registered professional nurse authorized by the State in which he or she furnishes the services to practice as an NP according to State law;</td>
<td><a href="https://www.gpo.gov/fdsys/pkg/CFR-2014-title42-vol2/pdf/CFR-2014-title42-vol2-sec410-75.pdf">https://www.gpo.gov/fdsys/pkg/CFR-2014-title42-vol2/pdf/CFR-2014-title42-vol2-sec410-75.pdf</a></td>
</tr>
<tr>
<td></td>
<td>● Be certified as an N by a recognized national certifying body that has established standards for NPs; and</td>
<td>“Medicare Benefit Policy Manual” (Publication 100-02: Chapter 15, Section 200)</td>
</tr>
<tr>
<td></td>
<td>If an NP obtained Medicare billing privileges for the first time <strong>between January 1, 2001, and January 1, 2003</strong>, the NP should:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Be a registered professional nurse authorized by the State in which he or she furnishes the services to practice as an NP according to State law;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Be certified as an N by a recognized national certifying body that has established standards for NPs.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>If an NP obtained Medicare billing privileges for the first time <strong>before January 1, 2001</strong>, the NP should:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Be a registered professional nurse authorized by the State in which he or she furnishes the services to practice as an NP according to State law.</td>
<td></td>
</tr>
</tbody>
</table>

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**Note:** The information is based on 42 CFR 410.75 and the Medicare Benefit Policy Manual.
Table 1. Health Care Suppliers Eligible to Provide SBIRT Services (cont.)

<table>
<thead>
<tr>
<th>Supplier Type</th>
<th>Qualification</th>
<th>Resources</th>
</tr>
</thead>
</table>
| Clinical Nurse Specialist (CNS) | ● A registered nurse currently licensed to practice in the State where he or she practices;  
 ● Authorized to furnish the services of a CNS according to State law;  
 ● Possesses a master’s degree in a defined clinical area of nursing from an accredited educational institution or a DNP degree; and  
 ● Certified as a CNS by recognized national certifying body that has established standards for a CNS. | 42 CFR 410.76  
| Clinical Psychologist (CP)     | ● Possesses a doctoral degree in psychology;  
 ● Licensed or certified — based on the doctoral degree in psychology — by the State in which he or she practices;  
 ● Furnishes diagnostic, assessment, preventive, and therapeutic services directly to individuals at the independent practice level of psychology; and  
 ● Legally authorized to perform the services under applicable licensure laws of the State in which he or she furnishes the services. | 42 CFR 410.71  
Table 1. Health Care Suppliers Eligible to Provide SBIRT Services (cont.)

<table>
<thead>
<tr>
<th>Supplier Type</th>
<th>Qualification</th>
<th>Resources</th>
</tr>
</thead>
</table>
| **Clinical Social Worker (CSW)**     | • Possesses a master’s or doctor’s degree in social work;  
• Performed at least 2 years of supervised clinical social work; and  
• Licensed or certified as a CS by the State in which he or she performs the services, except, in the case of an individual in a State that does not provide for licensure or certification  
  ○ Licensed or certified at the highest level of practice provided by the laws of the State in which the services are performed; and  
  ○ Completed at least 2 years or 3,000 hours of post-master’s degree supervised clinical social work practice under the supervision of a master’s degree level social worker in an appropriate setting, such as a hospital, Skilled Nursing Facility (SNF), or clinic. | 42 CFR 410.73  
“Medicare Benefit Policy Manual” (Publication 100-02: Chapter 15, Section 170)  
| **Certified Nurse-Midwife**          | • A registered nurse currently licensed to practice in the State where he or she practices;  
• Successfully completed a program of study and clinical experience for nurse-midwives from an accredited educational institution; and  
• Certified as a nurse-midwife by the American College of Nurse-Midwives or the American College of Nurse-Midwives Certification Council | 42 CFR 410.77  
“Medicare Benefit Policy Manual” (Publication 100-02: Chapter 15, Section 180)  
When Will Medicare Cover SBIRT Services?

Medicare covers only reasonable and necessary SBIRT services that meet the requirements of diagnosis or treatment of illness or injury (that is, when you provide the service to evaluate and/or treat patients with signs/symptoms of illness or injury) per the Social Security Act (the Act), Section 1862(a)(1)(A).

Medicare pays for these services under the Medicare Physician Fee Schedule (PFS) and the hospital Outpatient Prospective Payment System (OPPS). For more information on Medicare’s payment for SBIRT services, refer to the “Medicare Claims Processing Manual” (Publication 100-04: Chapter 4, Section 200.6) at https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/clm104c04.pdf on the CMS website.

How Must I Document SBIRT Services Under Medicare?

Information in the patient’s medical record must support all claims for Medicare services. The medical record for covered SBIRT services must:

- Create complete, legible medical records;
- Denote start/stop time or total face-to-face time with the patient (because some SBIRT Healthcare Common Procedure Coding System [HCPCS] codes are time-based codes);
- Document the patient’s progress, response to changes in treatment, and revision of diagnosis;
- Document the rationale for ordering diagnostic and other ancillary services, or ensure it can be easily inferred;
- For each patient encounter, document:
  - Assessment, clinical impression, and diagnosis;
  - Date and legible identity of observer/provider;
  - Physical examination findings and prior diagnostic test results
  - Plan of care; and
  - Reason for encounter and relevant history;
- Identify appropriate health risk factors;
- Include documentation to support all codes reported on the health insurance claim;
- Make past and present diagnoses accessible for the treating and/or consulting physician; and
- Sign all services provided/ordered.

Medicare Telehealth Includes SBIRT Services

All eligibility criteria, conditions of payment, payment, or billing methods that apply to Medicare telehealth services also apply to Medicare SBIRT services provided with telehealth. For more information on telehealth services, visit https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/MLN-Publications-Items/CMS1243327.html and https://www.cms.gov/Medicare/Medicare-General-Information/Telehealth on the CMS website.
NOTE: In the event of a claims audit, incomplete records place you at risk of partial/full denial of Medicare payments.

How Can I Bill SBIRT Services Under Medicare?

The following graphic describes the most common alcohol and substance abuse assessment and interventions services codes. For more information about reimbursement for SBIRT, refer to [http://www.integration.samhsa.gov/sbirt/Reimbursement_for_SBIRT.pdf](http://www.integration.samhsa.gov/sbirt/Reimbursement_for_SBIRT.pdf) on the Internet.

### How Must I Bill and Code SBIRT Services?

<table>
<thead>
<tr>
<th>Medicare HCPCS Code G0396</th>
<th>Medicare HCPCS Code G0397</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol and/or substance (other than tobacco) abuse structured assessment (for example, AUDIT, DAST), and brief intervention <strong>15 to 30 minutes</strong></td>
<td>Alcohol and/or substance (other than tobacco) abuse structured assessment (for example, AUDIT, DAST), and intervention, <strong>greater than 30 minutes</strong></td>
</tr>
</tbody>
</table>

SBIRT Under Medicaid

Who May Provide SBIRT Services Under Medicaid?

Screenings

States may include screening to identify problem drinking and substance use as a preventive service in their Medicaid State Plan. For preventive screenings, a physician or other licensed practitioner of the healing arts must recommend the service, within the scope of their practice under State law. For more information about Medicaid’s coverage of preventive services, refer to [https://www.medicaid.gov/federal-policy-guidance/downloads/CIB-11-27-2013-Prevention.pdf](https://www.medicaid.gov/federal-policy-guidance/downloads/CIB-11-27-2013-Prevention.pdf) on the Internet.

Other Services

For other services, such as brief intervention, States establish the qualifications of the practitioner when they cover a service in their Medicaid State Plan. In many instances, qualifications for practitioners offering substance use treatment include, but are not limited to:

- Licensed or certified to perform substance use services by the State in which the perform the services;
- Qualified to perform the specific substance use services rendere

Who May Provide SBIRT Services for Medicaid Beneficiaries

In 2013, CMS expanded the types of providers who may screen for risky substance use behaviors to include community health workers and other non-licensed practitioners. The service must be recommended by a physician or other licensed practitioner of the healing arts acting within the scope of their practice under State law.
• Supervised by a licensed practitioner of the healing arts (in some instances, when a qualified non-licensed professional renders the services); an
• Working within their State Scope of Practice Act.

When Will Medicaid Cover SBIRT Services?

Under the Early and Periodic Screening, Diagnostic and Treatment (EPSDT) benefit, Medicaid covers periodic screening (well child exams) as defined by statute for eligible children and youth. One required element of this screening is a comprehensive health and developmental history, including assessment of physical and mental health development. Part of this assessment includes an age-appropriate mental health and substance use health screening.

For adults, State Medicaid agencies may, but are not required to, include SBIRT services in their Medicaid program. As indicated above, if States cover SBIRT, payment for these services depends on a variety of factors, including qualified practitioner, documentation, or other payment rules established by the State.

How Must I Document SBIRT Services Under Medicaid?

Documentation for SBIRT services must comply with a State’s Medicaid policy. You can often find information regarding documentation in the State’s Medicaid provider manual. For additional information regarding documentation, providers should contact their State Medicaid agency. For contact information on each State’s Medicaid agency, visit https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-State/By-State.html on the Internet.

How Can I Bill SBIRT Services Under Medicaid?

If a State chooses to cover SBIRT under its Medicaid program, it has options for which codes can be used (for example, HCPCS codes G0396, G0397, H0049, and H0050). The National Correct Coding Initiative (NCCI) Policy Manual contains information about billing codes G0396 and G0397 with evaluation and management codes and behavioral health codes in Chapter 12, Section C (15). Find more information at https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Data-and-Systems/National-Correct-Coding-Initiative.html on the Internet. For more information about reimbursement for SBIRT, refer to http://www.integration.samhsa.gov/sbirt/Reimbursement_for_SBITR.pdf on the Internet.

Dual Eligibles

For individuals who participate in both the Medicare and Medicaid programs (dual eligibles), Medicare-participating providers should bill Medicare as usual and the Medicare Administrative Contractor (MAC) will transfer the claim to Medicaid after determining the Medicare-approved amount and authorizing payment as appropriate. The Medicare provider must enroll in the State Medicaid Program if he or she wants to receive payment from the program. States must accept the claim and determine if the State payment will pay for the cost-sharing amounts.
States will accept claims and pay cost-sharing amounts, in accordance with their approved payment method as set out in the State Plan, for all Medicare-covered services for certain dual eligible populations.

**NOTE:** Nominal Medicaid cost sharing applies for all dual eligibles, if applicable to the rendered service. However, you may not balance-bill certain dual eligibles when the Medicare and Medicaid payments fall below the approved Medicare rate.


**Resources**

For more information about substance abuse and mental health services, visit [http://www.integration.samhsa.gov/clinical-practice/sbirt](http://www.integration.samhsa.gov/clinical-practice/sbirt) on the Internet. Table 2 provides additional resources.

**Table 2. Resources**

<table>
<thead>
<tr>
<th>Resource</th>
<th>Website</th>
</tr>
</thead>
</table>
| Program Contact Information | Medicaid: Contact your State Medicaid Agency [https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-State/By-State.html](https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-State/By-State.html)  
### Table 2. Resources (cont.)

<table>
<thead>
<tr>
<th>Resource</th>
<th>Website</th>
</tr>
</thead>
</table>
| SBIRT Services | MLN Matters® Special Edition Article SE1013 “Summary of Medicare Reporting and Payment of Services for Alcohol and/or Substance (Other than Tobacco) Abuse Structured Assessment and Brief Intervention (SBIRT) Services”  
| Telehealth     | Expansion of Medicare Telehealth Services for Calendar Year (CY) 2013  


The Medicare Learning Network®, MLN Connects®, and MLN Matters® are registered trademarks of the U.S. Department of Health & Human Services (HHS).
Hi, I’m __________, nice to meet you. If it’s okay with you, I’d like to ask you a few questions that will help me give you better medical care. The questions relate to your experience with alcohol, cigarettes, and other drugs. Some of the substances we’ll talk about are prescribed by a doctor (like pain medications). But I will only record those if you have taken them for reasons or in doses other than prescribed. I’ll also ask you about illicit or illegal drug use—but only to better diagnose and treat you.

Instructions: For each substance, mark in the appropriate column. For example, if the patient has used cocaine monthly in the past year, put a mark in the “Monthly” column in the “illegal drug” row.

### NIDA Quick Screen Question:

In the past year, how often have you used the following?

<table>
<thead>
<tr>
<th>Alcohol</th>
<th>Never</th>
<th>Once or Twice</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily or Almost Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>• For men, 5 or more drinks a day</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• For women, 4 or more drinks a day</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tobacco Products</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prescription Drugs for Non-Medical Reasons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illegal Drugs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- If the patient says “NO” for all drugs in the Quick Screen, reinforce abstinence. Screening is complete.
- If a patient says “Yes” to use of tobacco: Any current tobacco use places a patient at risk. Advise all tobacco users to quit. For more information on smoking cessation, please see “Helping Smokers Quit: A Guide for Clinicians” [http://www.ahrq.gov/clinic/tobacco/clinhlpsmksqt.htm](http://www.ahrq.gov/clinic/tobacco/clinhlpsmksqt.htm)
- If the patient says “Yes” to use of illegal drugs or prescription drugs for non-medical reasons, proceed to Question 1 of the NIDA-Modified ASSIST.
Questions 1-8 of the NIDA-Modified ASSIST V2.0

**Instructions:** Patients may fill in the following form themselves but screening personnel should offer to read the questions aloud in a private setting and complete the form for the patient. To preserve confidentiality, a protective sheet should be placed on top of the questionnaire so it will not be seen by other patients after it is completed but before it is filed in the medical record.

<table>
<thead>
<tr>
<th>Question 1 of 8, NIDA-Modified ASSIST</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>In your <strong>LIFETIME</strong>, which of the following substances have you ever used?</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Note for Physicians: For prescription medications, please report nonmedical use only.</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Cannabis (marijuana, pot, grass, hash, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Cocaine (coke, crack, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Prescription stimulants (Ritalin, Concerta, Dexedrine, Adderall, diet pills, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Methamphetamine (speed, crystal meth, ice, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Inhalants (nitrous oxide, glue, gas, paint thinner, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Sedatives or sleeping pills (Valium, Serepax, Ativan, Xanax, Librium, Rohypnol, GHB, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Hallucinogens (LSD, acid, mushrooms, PCP, Special K, ecstasy, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Street opioids (heroin, opium, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Prescription opioids (fentanyl, oxycodone [OxyContin, Percocet], hydrocodone [Vicodin], methadone, buprenorphine, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>j. Other – specify:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Given the patient’s response to the Quick Screen, the patient should not indicate “NO” for all drugs in Question 1. If they do, remind them that their answers to the Quick Screen indicated they used an illegal or prescription drug for nonmedical reasons within the past year and then repeat Question 1. If the patient indicates that the drug used is not listed, please mark ‘Yes’ next to ‘Other’ and continue to Question 2 of the NIDA-Modified ASSIST.

- If the patient says “Yes” to any of the drugs, proceed to Question 2 of the NIDA-Modified ASSIST.
### Question 2 of 8, NIDA-Modified ASSIST

2. In the past three months, how often have you used the substances you mentioned (first drug, second drug, etc)?

<table>
<thead>
<tr>
<th>Substance</th>
<th>Never</th>
<th>Once or Twice</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily or Almost Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannabis (marijuana, pot, grass, hash, etc.)</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Cocaine (coke, crack, etc.)</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Prescription stimulants (Ritalin, Concerta, Dextedrine, Adderall, diet pills, etc.)</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Methamphetamine (speed, crystal meth, ice, etc.)</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Inhalants (nitrous oxide, glue, gas, paint thinner, etc.)</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Sedatives or sleeping pills (Valium, Serepax, Ativan, Librium, Xanax, Rohypnol, GHB, etc.)</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Hallucinogens (LSD, acid, mushrooms, PCP, Special K, ecstasy, etc.)</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Street opioids (heroin, opium, etc.)</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Prescription opioids (fentanyl, oxycodone [OxyContin, Percocet], hydrocodone [Vicodin], methadone, buprenorphine, etc.)</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Other – Specify:</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>6</td>
</tr>
</tbody>
</table>

- For patients who report “Never” having used any drug in the past 3 months: **Go to Questions 6-8.**
- For any recent illicit or nonmedical prescription drug use, go to Question 3.

### Question 3

3. In the past 3 months, how often have you had a strong desire or urge to use (first drug, second drug, etc)?

<table>
<thead>
<tr>
<th>Substance</th>
<th>Never</th>
<th>Once or Twice</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily or Almost Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannabis (marijuana, pot, grass, hash, etc.)</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Cocaine (coke, crack, etc.)</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Prescribed Amphetamine type stimulants (Ritalin, Concerta, Dextedrine, Adderall, diet pills, etc.)</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Methamphetamine (speed, crystal meth, ice, etc.)</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Inhalants (nitrous oxide, glue, gas, paint thinner, etc.)</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Sedatives or sleeping pills (Valium, Serepax, Ativan, Librium, Xanax, Rohypnol, GHB, etc.)</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Hallucinogens (LSD, acid, mushrooms, PCP, Special K, ecstasy, etc.)</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Street Opioids (heroin, opium, etc.)</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Prescription opioids (fentanyl, oxycodone [OxyContin, Percocet], hydrocodone [Vicodin], methadone, buprenorphine, etc.)</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Other – Specify:</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
4. **During the past 3 months, how often has your use of (first drug, second drug, etc) led to health, social, legal or financial problems?**

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Once or Twice</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily or Almost Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Cannabis</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>b. Cocaine</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>c. Prescribed Amphetamine type stimulants</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>d. Methamphetamine</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>e. Inhalants</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>f. Sedatives</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>g. Hallucinogens</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>h. Street opioids</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>i. Prescribed opioids</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>j. Other - Specify:</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

5. **During the past 3 months, how often have you failed to do what was normally expected of you because of your use of (first drug, second drug, etc)?**

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Once or Twice</th>
<th>Monthly</th>
<th>Weekly</th>
<th>Daily or Almost Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Cannabis</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>b. Cocaine</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>c. Prescribed Amphetamine type stimulants</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>d. Methamphetamine</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>e. Inhalants</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>f. Sedatives</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>g. Hallucinogens</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>h. Street opioids</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>i. Prescribed opioids</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>j. Other - Specify:</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
</tbody>
</table>

**Instructions:** Ask Questions 6 & 7 for all substances **ever used** (i.e., those endorsed in the Question 1).
<table>
<thead>
<tr>
<th></th>
<th>Has a friend or relative or anyone else ever expressed concern about your use of (first drug, second drug, etc)?</th>
<th>No, never</th>
<th>Yes, but not in the past 3 months</th>
<th>Yes, in the past 3 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Cannabis (marijuana, pot, grass, hash, etc.)</td>
<td>0</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>b.</td>
<td>Cocaine (coke, crack, etc.)</td>
<td>0</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>c.</td>
<td>Prescribed Amphetamine type stimulants (Ritalin, Concerta, Dexedrine, Adderall, diet pills, etc.)</td>
<td>0</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>d.</td>
<td>Methamphetamine (speed, crystal meth, ice, etc.)</td>
<td>0</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>e.</td>
<td>Inhalants (nitrous oxide, glue, gas, paint thinner, etc.)</td>
<td>0</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>f.</td>
<td>Sedatives or sleeping pills (Valium, Serepax, Xanax, Ativan, Librium, Rohypnol, GHB, etc.)</td>
<td>0</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>g.</td>
<td>Hallucinogens (LSD, acid, mushrooms, PCP, Special K, ecstasy, etc.)</td>
<td>0</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>h.</td>
<td>Street opioids (heroin, opium, etc.)</td>
<td>0</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>i.</td>
<td>Prescribed opioids (fentanyl, oxycodone [OxyContin, Percocet], hydrocodone [Vicodin], methadone, buprenorphine, etc.)</td>
<td>0</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>j.</td>
<td>Other – Specify:</td>
<td>0</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>
### Question 7: Have you ever tried and failed to control, cut down or stop using (first drug, second drug, etc)?

<table>
<thead>
<tr>
<th></th>
<th>No, never</th>
<th>Yes, but not in the past 3 months</th>
<th>Yes, in the past 3 months</th>
</tr>
</thead>
</table>
a. Cannabis (marijuana, pot, grass, hash, etc.) | 0 | 3 | 6 |
b. Cocaine (coke, crack, etc.) | 0 | 3 | 6 |
c. Prescribed Amphetamine type stimulants (Ritalin, Concerta, Dexedrine, Adderall, diet pills, etc.) | 0 | 3 | 6 |
d. Methamphetamine (speed, crystal meth, ice, etc.) | 0 | 3 | 6 |
e. Inhalants (nitrous oxide, glue, gas, paint thinner, etc.) | 0 | 3 | 6 |
f. Sedatives or sleeping pills (Valium, Serepax, Xanax, Ativan, Librium, Rohypnol, GHB, etc.) | 0 | 3 | 6 |
g. Hallucinogens (LSD, acid, mushrooms, PCP, Special K, ecstasy, etc.) | 0 | 3 | 6 |
h. Street opioids (heroin, opium, etc.) | 0 | 3 | 6 |
i. Prescribed opioids (fentanyl, oxycodone [OxyContin, Percocet], hydrocodone [Vicodin], methadone, buprenorphine, etc.) | 0 | 3 | 6 |
j. Other – Specify: | 0 | 3 | 6 |

**Instructions:** Ask Question 8 if the patient endorses any drug that might be injected, including those that might be listed in the other category (e.g., steroids). Circle appropriate response.

### Question 8: Have you ever used any drug by injection (NONMEDICAL USE ONLY)?

<table>
<thead>
<tr>
<th></th>
<th>No, never</th>
<th>Yes, but not in the past 3 months</th>
<th>Yes, in the past 3 months</th>
</tr>
</thead>
</table>
- Recommend to patients reporting any prior or current intravenous drug use that they get tested for HIV and Hepatitis B/C.
- If patient reports using a drug by injection in the past three months, ask about their pattern of injecting during this period to determine their risk levels and the best course of intervention.
  - If patient responds that they inject once weekly or less OR fewer than 3 days in a row, provide a brief intervention including a discussions of the risks associated with injecting.
  - If patient responds that they inject more than once per week OR 3 or more days in a row, refer for further assessment.

**Note:** Recommend to patients reporting any current use of alcohol or illicit drugs that they get tested for HIV and other sexually transmitted diseases.
**Tally Sheet for scoring the full NIDA-Modified ASSIST:**

**Instructions:** For each substance (labeled a–j), add up the scores received for questions 2-7 above. This is the Substance Involvement (SI) score. Do not include the results from either the Q1 or Q8 (above) in your SI scores.

<table>
<thead>
<tr>
<th>Substance Involvement Score</th>
<th>Total (SI SCORE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Cannabis (marijuana, pot, grass, hash, etc.)</td>
<td></td>
</tr>
<tr>
<td>b. Cocaine (coke, crack, etc.)</td>
<td></td>
</tr>
<tr>
<td>c. Prescription stimulants (Ritalin, Concerta, Dexedrine, Adderall, diet pills, etc.)</td>
<td></td>
</tr>
<tr>
<td>d. Methamphetamine (speed, crystal meth, ice, etc.)</td>
<td></td>
</tr>
<tr>
<td>e. Inhalants (nitrous oxide, glue, gas, paint thinner, etc.)</td>
<td></td>
</tr>
<tr>
<td>f. Sedatives or sleeping pills (Valium, Serepax, Xanax, Ativan, Librium, Rohypnol, GHB, etc.)</td>
<td></td>
</tr>
<tr>
<td>g. Hallucinogens (LSD, acid, mushrooms, PCP, Special K, ecstasy, etc.)</td>
<td></td>
</tr>
<tr>
<td>h. Street Opioids (heroin, opium, etc.)</td>
<td></td>
</tr>
<tr>
<td>i. Prescription opioids (fentanyl, oxycodone [OxyContin, Percocet], hydrocodone [Vicodin], methadone, buprenorphine, etc.)</td>
<td></td>
</tr>
<tr>
<td>j. Other – Specify:</td>
<td></td>
</tr>
</tbody>
</table>

Use the resultant Substance Involvement (SI) Score to identify patient’s risk level.

To determine patient’s risk level based on his or her SI score, see the table below:

<table>
<thead>
<tr>
<th>Level of risk associated with different Substance Involvement Score ranges for Illicit or nonmedical prescription drug use</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3</td>
</tr>
<tr>
<td>4-26</td>
</tr>
<tr>
<td>27+</td>
</tr>
</tbody>
</table>
The Screener and Opioid Assessment for Patients with Pain (SOAPP)® Version 1.0 is a tool for clinicians to help determine how much monitoring a patient on long-term opioid therapy might require. Physicians remain reluctant to prescribe opioid medication because of concerns about addiction, misuse, and other aberrant medication-related behaviors, as well as liability and censure concerns. Despite recent findings suggesting that most patients are able to successfully remain on long-term opioid therapy without significant problems, physicians often express a lack of confidence in their ability to distinguish patients likely to have few problems on long-term opioid therapy from those requiring more monitoring.

SOAPP® version 1.0 is a quick and easy-to-use questionnaire designed to help providers evaluate the patients’ relative risk for developing problems when placed on long-term opioid therapy. Version 1.0 -14Q is:

- A brief paper and pencil questionnaire
- Developed based on expert consensus regarding important concepts likely to predict which patients will require more or less monitoring on long-term opioid therapy (content and face valid)
- Preliminary reliability data (coefficient α) from 175 patients chronic pain patients
- Preliminary validity data from 100 patients (predictive validity)
- Simple scoring procedures
- 14 items
- 5 point scale
- <8 minutes to complete
- Ideal for documenting decisions about the level of monitoring planned for a particular patient or justifying referrals to specialty pain clinic.
- The SOAPP® is for clinician use only. The tool is not meant for commercial distribution.
- The SOAPP® is NOT a lie detector. Patients determined to misrepresent themselves will still do so. Other clinical information should be used with SOAPP® scores to decide on a particular patient’s treatment.
- The SOAPP® is NOT intended for all patients. The SOAPP® should be completed by chronic pain patients being considered for opioid therapy.
- It is important to remember that all chronic pain patients deserve treatment of their pain. Providers who are not comfortable treating certain patients should refer those patients to a specialist.
SOAPP® Version 1.0-14Q

Name: ___________________________________________  Date: _______________

The following are some questions given to all patients at the Pain Management Center who are on or being considered for opioids for their pain. Please answer each question as honestly as possible. This information is for our records and will remain confidential. Your answers alone will not determine your treatment. Thank you.

Please answer the questions below using the following scale:

0 = Never, 1 = Seldom, 2 = Sometimes, 3 = Often, 4 = Very Often

1. How often do you have mood swings?  0 1 2 3 4
2. How often do you smoke a cigarette within an hour after you wake up?  0 1 2 3 4
3. How often have any of your family members, including parents and grandparents, had a problem with alcohol or drugs?  0 1 2 3 4
4. How often have any of your close friends had a problem with alcohol or drugs?  0 1 2 3 4
5. How often have others suggested that you have a drug or alcohol problem?  0 1 2 3 4
6. How often have you attended an AA or NA meeting?  0 1 2 3 4
7. How often have you taken medication other than the way that it was prescribed?  0 1 2 3 4
8. How often have you been treated for an alcohol or drug problem?  0 1 2 3 4
9. How often have your medications been lost or stolen?  0 1 2 3 4
10. How often have others expressed concern over your use of medication?  0 1 2 3 4
0 = Never, 1 = Seldom, 2 = Sometimes, 3 = Often, 4 = Very Often

11. How often have you felt a craving for medication? 0 1 2 3 4

12. How often have you been asked to give a urine screen for substance abuse? 0 1 2 3 4

13. How often have you used illegal drugs (for example, marijuana, cocaine, etc.) in the past five years? 0 1 2 3 4

14. How often, in your lifetime, have you had legal problems or been arrested? 0 1 2 3 4

Please include any additional information you wish about the above answers. Thank you.
Scoring Instructions for the SOAPP® Version 1.0-14Q

To score the SOAPP® V.1-14Q, simply add the ratings of all the questions:

A score of 7 or higher is considered positive.

<table>
<thead>
<tr>
<th>Sum of Questions</th>
<th>SOAPP® Indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; or = 7</td>
<td>+</td>
</tr>
<tr>
<td>&lt; 7</td>
<td>-</td>
</tr>
</tbody>
</table>

What does the Cutoff Score Mean?
For any screening test, the results depend on what cutoff score is chosen. A score that is good at detecting patients at-risk will necessarily include a number of patients that are not really at risk. A score that is good at identifying those at low risk will, in turn, miss a number of patients at risk. A screening measure like the SOAPP® generally endeavors to minimize the chances of missing high-risk patients. This means that patients who are truly at low risk may still get a score above the cutoff. The table below presents several statistics that describe how effective the SOAPP® is at different cutoff values. These values suggest that the SOAPP® is a sensitive test. This confirms that the SOAPP® is better at identifying who is at high risk than identifying who is at low risk. Clinically, a score of 7 or higher will identify 91% of those who actually turn out to be at high risk. The Negative Predictive Values for a cutoff score of 7 is .90, which means that most people who have a negative SOAPP® are likely at low-risk. Finally, the Positive likelihood ratio suggests that a positive SOAPP® score (at a cutoff of 7) is nearly 3 times (2.94 times) as likely to come from someone who is actually at high risk (note that, of these statistics, the likelihood ratio is least affected by prevalence rates). All this implies that by using a cutoff score of 7 will ensure that the provider is least likely to miss someone who is really at high risk. However, one should remember that a low SOAPP® score suggests the patient is really at low-risk, while a high SOAPP® score will contain a larger percentage of false positives (about 30%), while at the same time retaining a large percentage of true positives. This could be improved, so that a positive score has a lower false positive rate, but only at the risk of missing more of those who actually do show aberrant behavior.

<table>
<thead>
<tr>
<th>SOAPP® Cutoff Score</th>
<th>Sensitivity</th>
<th>Specificity</th>
<th>Positive Predictive Value</th>
<th>Negative Predictive Value</th>
<th>Positive Likelihood Ratio</th>
<th>Negative Likelihood Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score 7 or above</td>
<td>.91</td>
<td>.69</td>
<td>.71</td>
<td>.90</td>
<td>2.94</td>
<td>.13</td>
</tr>
<tr>
<td>Score 8 or above</td>
<td>.86</td>
<td>.73</td>
<td>.75</td>
<td>.86</td>
<td>3.19</td>
<td>.19</td>
</tr>
<tr>
<td>Score 9 or above</td>
<td>.77</td>
<td>.80</td>
<td>.77</td>
<td>.80</td>
<td>3.90</td>
<td>.28</td>
</tr>
</tbody>
</table>

©2008 Inflexxion, Inc. Permission granted solely for use in published format by individual practitioners in clinical practice. No other uses or alterations are authorized or permitted by copyright holder. Permissions questions: PainEDU@inflexxion.com. The SOAPP® was developed with a grant from the National Institutes of Health and an educational grant from Endo Pharmaceuticals.
Physician Positive Alcohol Screen Case

1. Ask 3 InSight screening questions:

   Do you smoke or use other tobacco products?

   When was the last time you had more than 4 drinks in one day?

   How many times in the past year have you used an illegal drug or a prescription medication for nonmedical reasons?

2. If + on alcohol question, administer AUDIT:

3. Give feedback about AUDIT score:

<table>
<thead>
<tr>
<th>Score</th>
<th>Category of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-7</td>
<td>Healthy</td>
</tr>
<tr>
<td>8-15</td>
<td>At-risk</td>
</tr>
<tr>
<td>16-19</td>
<td>Abuse/Harmful</td>
</tr>
<tr>
<td>20+</td>
<td>Dependence</td>
</tr>
</tbody>
</table>

4. Assess patient’s readiness to change:

<table>
<thead>
<tr>
<th>Readiness</th>
<th>Stage of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3</td>
<td>Precontemplation; early contemplation</td>
</tr>
<tr>
<td>4-7</td>
<td>Contemplation</td>
</tr>
<tr>
<td>8-10</td>
<td>Preparation; action</td>
</tr>
</tbody>
</table>

5. Provide appropriate BI based on pt’s readiness:

6. If pt is appropriate for referral and meets ABUSE or DEPENDENCE, assess readiness for referral

7. If pt is ready for referral, make referral
3 InSight Screening Questions

Screen + on ALCOHOL or DRUGS

Administer AUDIT or DAST

Healthy Use
Give brief message reinforcing healthy use

Risky Use
Assess Readiness to Change

- 0-3
  - Offer information and support; follow up

- 4-10
  - Provide brief advice

Abuse or Dependence
Assess Readiness to Change Using Readiness Ruler

- 0-3
  - Do NOT Refer

- 4-10
  - Assess Readiness for Referral
    - 0-3
      - Do NOT Refer
    - 4-10
      - Refer to Treatment
Physician Positive Drug Screen Case

1. Ask 3 InSight screening questions

   Do you smoke or use other tobacco products?

   When was the last time you had more than 4 drinks in one day?

   How many times in the past year have you used an illegal drug or a prescription medication for nonmedical reasons?

2. If + on drug question, administer DAST:

3. Give feedback about DAST score:

<table>
<thead>
<tr>
<th>Score</th>
<th>Category of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Healthy</td>
</tr>
<tr>
<td>1-2</td>
<td>At-risk</td>
</tr>
<tr>
<td>3-5</td>
<td>Abuse/Harmful</td>
</tr>
<tr>
<td>6+</td>
<td>Dependence</td>
</tr>
</tbody>
</table>

4. Assess patient’s readiness to change:

   - **Limited intervention**
     - Elicit patient’s motivation to change
     - Elicit perceived negative consequences, Express concern, Offer information, Support & follow-up

   - **Scores 0-3**
     - Scores 4-7
     - Scores 8-10
     - Explore and heighten ambivalence, Offer support & Follow up
     - Help patient develop action plan, Identify resources, Instill hope

   - **Readiness**
     - 0-3
     - 4-7
     - 8-10

   - **Stage of Change**
     - Precontemplation; early contemplation
     - Contemplation
     - Preparation; action

5. Provide appropriate BI based on pt’s readiness:

6. If pt is appropriate for referral and meets ABUSE or DEPENDENCE, assess readiness for referral

7. If pt is ready for referral, make referral
3 InSight Screening Questions

- Screen + on ALCOHOL or DRUGS

- Administer AUDIT or DAST

Healthy Use
- Give brief message reinforcing healthy use

Risky Use
- Assess Readiness to Change
  - 0-3: Offer information and support; follow up
  - 4-10: Provide brief advice

Abuse or Dependence
- Assess Readiness to Change Using Readiness Ruler
  - 0-3: Do NOT Refer
  - 4-10: Assess Readiness for Referral
    - 0-3: Do NOT Refer
    - 4-10: Refer to Treatment

Refer
Introduction

The Drug Abuse Screening Test (DAST-10) is a 10-item brief screening tool that can be administered by a clinician or self-administered. Each question requires a yes or no response, and the tool can be completed in less than 8 minutes. This tool assesses drug use, not including alcohol or tobacco use, in the past 12 months.
DAST-10 Questionnaire

I’m going to read you a list of questions concerning information about your potential involvement with drugs, excluding alcohol and tobacco, during the past 12 months.

When the words “drug abuse” are used, they mean the use of prescribed or over-the-counter medications/drugs in excess of the directions and any non-medical use of drugs. The various classes of drugs may include: cannabis (e.g., marijuana, hash), solvents, tranquilizers (e.g., Valium), barbiturates, cocaine, stimulants (e.g., speed), hallucinogens (e.g., LSD) or narcotics (e.g., heroin). Remember that the questions do not include alcohol or tobacco.

If you have difficulty with a statement, then choose the response that is mostly right.
You may choose to answer or not answer any of the questions in this section.

<table>
<thead>
<tr>
<th>These questions refer to the past 12 months.</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have you used drugs other than those required for medical reasons?</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2. Do you abuse more than one drug at a time?</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>3. Are you always able to stop using drugs when you want to? (If never use drugs, answer “Yes.”)</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>4. Have you had &quot;blackouts&quot; or &quot;flashbacks&quot; as a result of drug use?</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>5. Do you ever feel bad or guilty about your drug use? If never use drugs, choose “No.”</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>6. Does your spouse (or parents) ever complain about your involvement with drugs?</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>7. Have you neglected your family because of your use of drugs?</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>8. Have you engaged in illegal activities in order to obtain drugs?</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>9. Have you ever experienced withdrawal symptoms (felt sick) when you stopped taking drugs?</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>10. Have you had medical problems as a result of your drug use (e.g., memory loss, hepatitis, convulsions, bleeding, etc.)?</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
Interpreting the DAST 10

In these statements, the term “drug abuse” refers to the use of medications at a level that exceeds the instructions, and/or any non-medical use of drugs. Patients receive 1 point for every "yes" answer with the exception of question #3, for which a "no" answer receives 1 point. DAST-10 Score Degree of Problems Related to Drug Abuse Suggested Action.

<table>
<thead>
<tr>
<th>DAST-10 Score</th>
<th>Degree of Problems Related to Drug Abuse</th>
<th>Suggested Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No problems reported</td>
<td>None at this time</td>
</tr>
<tr>
<td>1–2</td>
<td>Low level</td>
<td>Monitor, re-assess at a later date</td>
</tr>
<tr>
<td>3–5</td>
<td>Moderate level</td>
<td>Further investigation</td>
</tr>
<tr>
<td>6–8</td>
<td>Substantial level</td>
<td>Intensive assessment</td>
</tr>
<tr>
<td>9–10</td>
<td>Severe level</td>
<td>Intensive assessment</td>
</tr>
</tbody>
</table>

PATIENT: Because alcohol use can affect your health and can interfere with certain medications and treatments, it is important that we ask some questions about your use of alcohol. Your answers will remain confidential, so please be honest.

For each question in the chart below, place an X in one box that best describes your answer.

NOTE: In the U.S., a single drink serving contains about 14 grams of ethanol or “pure” alcohol. Although the drinks below are different sizes, each one contains the same amount of pure alcohol and counts as a single drink:

<table>
<thead>
<tr>
<th>Drink Type</th>
<th>Size</th>
<th>Alcohol Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beer</td>
<td>12 oz.</td>
<td>(about 5% alcohol)</td>
</tr>
<tr>
<td>Malt Liquor</td>
<td>8-9 oz.</td>
<td>(about 7% alcohol)</td>
</tr>
<tr>
<td>Wine</td>
<td>5 oz.</td>
<td>(about 12% alcohol)</td>
</tr>
<tr>
<td>Hard Liquor</td>
<td>1.5 oz.</td>
<td>(about 40% alcohol)</td>
</tr>
</tbody>
</table>

### Questions

<table>
<thead>
<tr>
<th>Questions</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How often do you have a drink containing alcohol?</td>
<td>Never</td>
<td>Monthly or less</td>
<td>2 to 4 times a month</td>
<td>2 to 3 times a week</td>
<td>4 or more times a week</td>
</tr>
<tr>
<td>2. How many drinks containing alcohol do you have on a typical day when you are drinking?</td>
<td>1 or 2</td>
<td>3 or 4</td>
<td>5 or 6</td>
<td>7 to 9</td>
<td>10 or more</td>
</tr>
<tr>
<td>3. How often do you have 5 or more drinks on one occasion?</td>
<td>Never</td>
<td>Less than monthly</td>
<td>Monthly</td>
<td>Weekly</td>
<td>Daily or almost daily</td>
</tr>
<tr>
<td>4. How often during the last year have you found that you were not able to stop drinking once you had started?</td>
<td>Never</td>
<td>Less than monthly</td>
<td>Monthly</td>
<td>Weekly</td>
<td>Daily or almost daily</td>
</tr>
<tr>
<td>5. How often during the last year have you failed to do what was normally expected of you because of drinking?</td>
<td>Never</td>
<td>Less than monthly</td>
<td>Monthly</td>
<td>Weekly</td>
<td>Daily or almost daily</td>
</tr>
<tr>
<td>6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?</td>
<td>Never</td>
<td>Less than monthly</td>
<td>Monthly</td>
<td>Weekly</td>
<td>Daily or almost daily</td>
</tr>
<tr>
<td>7. How often during the last year have you had a feeling of guilt or remorse after drinking?</td>
<td>Never</td>
<td>Less than monthly</td>
<td>Monthly</td>
<td>Weekly</td>
<td>Daily or almost daily</td>
</tr>
<tr>
<td>8. How often during the last year have you been unable to remember what happened the night before because of your drinking?</td>
<td>Never</td>
<td>Less than monthly</td>
<td>Monthly</td>
<td>Weekly</td>
<td>Daily or almost daily</td>
</tr>
<tr>
<td>9. Have you or someone else been injured because of your drinking?</td>
<td>No</td>
<td>Yes, but not in the last year</td>
<td>Yes, during the last year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?</td>
<td>No</td>
<td>Yes, but not in the last year</td>
<td>Yes, during the last year</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total**

*Note:* This questionnaire (the AUDIT) is reprinted with permission from the World Health Organization. To reflect drink serving sizes in the United States (14g of pure alcohol), the number of drinks in question 3 was changed from 6 to 5. A free AUDIT manual with guidelines for use in primary care settings is available online at [www.who.org](http://www.who.org).
CAGE Substance Abuse Screening Tool

Directions: Ask your patients these four questions and use the scoring method described below to determine if substance abuse exists and needs to be addressed.

CAGE Questions

1. Have you ever felt you should cut down on your drinking?
2. Have people annoyed you by criticizing your drinking?
3. Have you ever felt bad or guilty about your drinking?
4. Have you ever had a drink first thing in the morning to steady your nerves or to get rid of a hangover (eye-opener)?

CAGE Questions Adapted to Include Drug Use (CAGE-AID)

1. Have you ever felt you ought to cut down on your drinking or drug use?
2. Have people annoyed you by criticizing your drinking or drug use?
3. Have you felt bad or guilty about your drinking or drug use?
4. Have you ever had a drink or used drugs first thing in the morning to steady your nerves or to get rid of a hangover (eye-opener)?

Scoring: Item responses on the CAGE questions are scored 0 for "no" and 1 for "yes" answers, with a higher score being an indication of alcohol problems. A total score of two or greater is considered clinically significant.

The normal cutoff for the CAGE is two positive answers, however, the Consensus Panel recommends that the primary care clinicians lower the threshold to one positive answer to cast a wider net and identify more patients who may have substance abuse disorders. A number of other screening tools are available.

CAGE is derived from the four questions of the tool: Cut down, Annoyed, Guilty, and Eye-opener

CAGE Source: Ewing 1984
Oswestry Low Back Pain Disability Questionnaire


The Oswestry Disability Index (also known as the Oswestry Low Back Pain Disability Questionnaire) is an extremely important tool that researchers and disability evaluators use to measure a patient’s permanent functional disability. The test is considered the ‘gold standard’ of low back functional outcome tools.

Scoring instructions

For each section the total possible score is 5: if the first statement is marked the section score = 0; if the last statement is marked, it = 5. If all 10 sections are completed the score is calculated as follows:

Example: 16 (total scored)

50 (total possible score) x 100 = 32%

If one section is missed or not applicable the score is calculated:

16 (total scored)

45 (total possible score) x 100 = 35.5%

Minimum detectable change (90% confidence): 10% points (change of less than this may be attributable to error in the measurement)

Interpretation of scores

<table>
<thead>
<tr>
<th>0% to 20%: minimal disability:</th>
<th>The patient can cope with most living activities. Usually no treatment is indicated apart from advice on lifting sitting and exercise.</th>
</tr>
</thead>
<tbody>
<tr>
<td>21%-40%: moderate disability:</td>
<td>The patient experiences more pain and difficulty with sitting, lifting and standing. Travel and social life are more difficult and they may be disabled from work. Personal care, sexual activity and sleeping are not grossly affected and the patient can usually be managed by conservative means.</td>
</tr>
<tr>
<td>41%-60%: severe disability:</td>
<td>Pain remains the main problem in this group but activities of daily living are affected. These patients require a detailed investigation.</td>
</tr>
<tr>
<td>61%-80%: crippled:</td>
<td>Back pain impinges on all aspects of the patient’s life. Positive intervention is required.</td>
</tr>
<tr>
<td>81%-100%:</td>
<td>These patients are either bed-bound or exaggerating their symptoms.</td>
</tr>
</tbody>
</table>

Page 1
Oswestry Low Back Pain Disability Questionnaire

Instructions

This questionnaire has been designed to give us information as to how your back or leg pain is affecting your ability to manage in everyday life. Please answer by checking ONE box in each section for the statement which best applies to you. We realise you may consider that two or more statements in any one section apply but please just shade out the spot that indicates the statement which most clearly describes your problem.

Section 1 – Pain intensity
☐ I have no pain at the moment
☐ The pain is very mild at the moment
☐ The pain is moderate at the moment
☐ The pain is fairly severe at the moment
☐ The pain is very severe at the moment
☐ The pain is the worst imaginable at the moment

Section 2 – Personal care (washing, dressing etc)
☐ I can look after myself normally without causing extra pain
☐ I can look after myself normally but it causes extra pain
☐ It is painful to look after myself and I am slow and careful
☐ I need some help but manage most of my personal care
☐ I need help every day in most aspects of self-care
☐ I do not get dressed, I wash with difficulty and stay in bed

Section 3 – Lifting
☐ I can lift heavy weights without extra pain
☐ I can lift heavy weights but it gives extra pain
☐ Pain prevents me from lifting heavy weights off the floor, but I can manage if they are conveniently placed eg. on a table
☐ Pain prevents me from lifting heavy weights, but I can manage light to medium weights if they are conveniently positioned
☐ I can lift very light weights
☐ I cannot lift or carry anything at all

Section 4 – Walking*
☐ Pain does not prevent me walking any distance
☐ Pain prevents me from walking more than 1 mile
☐ Pain prevents me from walking more than 1/2 mile
☐ Pain prevents me from walking more than 100 yards
☐ I can only walk using a stick or crutches
☐ I am in bed most of the time
Section 5 – Sitting

☐ I can sit in any chair as long as I like
☐ I can only sit in my favourite chair as long as I like
☐ Pain prevents me sitting more than one hour
☐ Pain prevents me from sitting more than 30 minutes
☐ Pain prevents me from sitting more than 10 minutes
☐ Pain prevents me from sitting at all

Section 6 – Standing

☐ I can stand as long as I want without extra pain
☐ I can stand as long as I want but it gives me extra pain
☐ Pain prevents me from standing for more than 1 hour
☐ Pain prevents me from standing for more than 30 minutes
☐ Pain prevents me from standing for more than 10 minutes
☐ Pain prevents me from standing at all

Section 7 – Sleeping

☐ My sleep is never disturbed by pain
☐ My sleep is occasionally disturbed by pain
☐ Because of pain I have less than 6 hours sleep
☐ Because of pain I have less than 4 hours sleep
☐ Because of pain I have less than 2 hours sleep
☐ Pain prevents me from sleeping at all

Section 8 – Sex life (if applicable)

☐ My sex life is normal and causes no extra pain
☐ My sex life is normal but causes some extra pain
☐ My sex life is nearly normal but is very painful
☐ My sex life is severely restricted by pain
☐ My sex life is nearly absent because of pain
☐ Pain prevents any sex life at all

Section 9 – Social life

☐ My social life is normal and gives me no extra pain
☐ My social life is normal but increases the degree of pain
☐ Pain has no significant effect on my social life apart from limiting my more energetic interests eg, sport
☐ Pain has restricted my social life and I do not go out as often
☐ Pain has restricted my social life to my home
☐ I have no social life because of pain

Section 10 – Travelling

☐ I can travel anywhere without pain
☐ I can travel anywhere but it gives me extra pain
☐ Pain is bad but I manage journeys over two hours
☐ Pain restricts me to journeys of less than one hour
☐ Pain restricts me to short necessary journeys under 30 minutes
☐ Pain prevents me from travelling except to receive treatment

References

Reimbursement for SBIRT

The American Medical Association (AMA) has approved several billing codes that will allow you to be reimbursed for providing screening and brief intervention services. Medical procedures are coded using Common Procedure and Terminology (CPT) and Healthcare Common Procedure Coding System (HCPCS) codes. Screening and brief intervention may be provided in an office, emergency department or inpatient visit for both new and established patients. Virtually all payers use AMA’s Evaluation and Management (E & M) CPT codes to pay physicians’ services. Many payers reimburse for independent licensed health practitioners such as advance practice nurses, psychologists, and masters-level social workers. A few will pay for service provided by health professionals under the supervision of a physician.

Several CPT codes can be used. The chart below shows the most commonly used codes.

<table>
<thead>
<tr>
<th>Payer</th>
<th>Code</th>
<th>Description</th>
<th>Fee Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Insurance, Medicaid</td>
<td>99408</td>
<td>Alcohol and/or substance abuse structured screening and brief intervention services; 15 to 30min</td>
<td>$33.41</td>
</tr>
<tr>
<td>Commercial Insurance, Medicaid</td>
<td>99409</td>
<td>Alcohol and/or substance abuse structured screening and brief intervention services; greater than 30min</td>
<td>$65.51</td>
</tr>
<tr>
<td>Medicare</td>
<td>G0396</td>
<td>Alcohol and/or substance abuse structured screening and brief intervention services; 15 to 30min</td>
<td>$29.42</td>
</tr>
<tr>
<td>Medicare</td>
<td>G0397</td>
<td>Alcohol and/or substance abuse structured screening and brief intervention services; greater than 30min</td>
<td>$57.69</td>
</tr>
<tr>
<td>Medicare</td>
<td>G0442</td>
<td>Prevention: Screening for alcohol misuse in adults including pregnant women once per year. No coinsurance; no deductible for patient</td>
<td>$17.33</td>
</tr>
<tr>
<td>Medicare</td>
<td>G0443</td>
<td>Prevention: Up to four, 15 minute, brief face-to-face behavioral counseling interventions per year for individuals, including pregnant women, who screen positive for alcohol misuse; No coinsurance; no deductible for patient</td>
<td>$25.14</td>
</tr>
<tr>
<td>Medicaid</td>
<td>H0049</td>
<td>Alcohol and/or drug screening (code not widely used)</td>
<td>$24.00</td>
</tr>
<tr>
<td>Medicaid</td>
<td>H0050</td>
<td>Alcohol and/or drug service, brief intervention, per 15 min (code not widely used)</td>
<td>$48.00</td>
</tr>
</tbody>
</table>
Several primary care and hospital practices have successfully used the CPT code 99420: Other Preventive Medicine Services – Administration and interpretation of health risk assessment instruments, to bill for administration of the full AUDIT, DAST or other substance use assessment questionnaires where the results indicate low or moderate risk. Reimbursement ranges between $7.14 and $18.00.

Health Behavior Assessment and Intervention (HBAI) codes (96150–96155) can be used to bill for screening and brief intervention. These codes are used for services that identify the psychological, behavioral and social factors important to the prevention, treatment or management of physical health problems. The focus is not on mental health or substance use, but on the bio-psycho-social factors important to physical health problems. Documentation required of the rationale, assessment outcome, goals and duration, length. The HBAI codes are billed at 15 minute units with a limit to 4 units in hour.

The SBI CPT codes (99408, 99409) can be added to other Evaluation and Management (E & M) codes for office or other outpatient services (99210–99215), for physician or other health care provider services in the emergency department (99281–99285), or physician or other health care provider inpatient consultations (99251–99255) through the use of the modifier .25 affixed to the SBI codes (99408, 99409). SBI adds to the Relative Value Units (RVU) for E&M services. For example, in outpatient settings, provision of a brief SBI service (15 minutes) in addition to a 30 minute outpatient office visit for a new patient (99203) adds .65 RVUs for the SBI service to the .97 RVUs for the E & M outpatient visit. Correct use of codes 99408 and 99409 requires that the screening and interventional components of this service be documented in the clinical record.

According to the American Medical Association’s CPT guidelines, when counseling and/or coordination of care dominates an encounter (more than 50% of the office visit) then time may be considered the controlling factor to qualify for a particular level of E & M services. Physicians and health care professionals who devote more than half of a visit counseling a patient about their alcohol or drug use may use the E & M codes for office and other outpatient services (99210–99215), with appropriate documentation of services provided in the clinical record.

For all of these procedures, a physician or other qualified health care professional should use a validated screening instrument (such as the alcohol use disorder identification tests [AUDIT] or the drug abuse screening test [DAST]). A validated screening instrument is an instrument that has been psychometrically tested for reliability (the ability of the instrument to produce consistent results), validity (the ability of the instrument to produce true results), sensitivity (the probability of correctly identifying a patient with the condition), and specificity (the probability of correctly identifying a patient who does not have the condition). Using an instrument that has not been validated may increase the chances of misidentification. An intervention is performed when indicated by the score on the screening instrument. The instrument used and the nature of the intervention are recorded in the clinical documentation for the encounter.

If an intervention is not required on the basis of the result of the screening, the work effort of performing the survey is included in the selection of the appropriate E/M service or preventive
medicine service (99420 or the new Medicare alcohol screening code G0442). If an intervention is required on the basis of the screening result, a brief intervention is conducted. Code 99408 is the most likely service level for the majority of patients.

To guide appropriate coding and billing, the Five A’s model may be useful: Screening (Ask, Assess – code 99420, G0442) and Brief Intervention (Advise, Assist, Arrange – code 99408, 99409, G0443)

<table>
<thead>
<tr>
<th>Code</th>
<th>5 A’s</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ask</td>
<td>99420</td>
<td>G0442</td>
</tr>
<tr>
<td></td>
<td>Ask permission to talk about patient’s alcohol use.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o “Would you mind if we talked more about your alcohol use?”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Ask about patient’s alcohol pattern use.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o “I’d like to talk more about the type of alcoholic beverages you are consuming and the frequency of your consumption?”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o “You indicated you are consuming more than the recommended limits, please tell me again how many times in the past 30 days you have had more than 4 drinks (for women) or 5 drinks (for men) in a day?”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Avoid arguing or confrontation.</td>
<td></td>
</tr>
<tr>
<td>Assess*</td>
<td>99408</td>
<td>99409</td>
</tr>
<tr>
<td></td>
<td>Assess for alcohol use disorders.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o “Based on your responses, I am concerned about how much you’re drinking and how it can affect your health”</td>
<td></td>
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<tr>
<td></td>
<td>o “You are drinking alcohol at a level that puts you at increased risk for alcohol-related illnesses.”</td>
<td></td>
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<tr>
<td></td>
<td>o Determine whether patient’s alcohol use has caused clinically significant impairment or distress;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>“In the past 12 months, has your drinking caused or contributed to the following: risk of bodily harm, relationship problems, role failure, and/or run ins with the law?”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o “In the past 12 months, have you not been able to cut down or stop drinking, not been able to stick to drinking limits, shown tolerance, shown signs of withdrawal, kept drinking despite problems, spent a lot of time drinking, and/or spent less time on other matters?”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Determine if patient has risky or harmful drinking behavior (alcohol misuse but no abuse or dependence). If alcohol dependence suspected, consider further evaluation or referral to behavioral health specialist.</td>
<td></td>
</tr>
<tr>
<td>Advise</td>
<td>99408</td>
<td>99409</td>
</tr>
<tr>
<td></td>
<td>Advise patient of your assessment and recommendations related to the findings.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o “You are drinking more than is medically safe.” Relate to the patient’s concerns and medical findings if present.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o I recommend that you cut down (or quit).</td>
<td></td>
</tr>
<tr>
<td>Assist</td>
<td>99408</td>
<td>G0445</td>
</tr>
<tr>
<td></td>
<td>Determine if patient is ready to change their behavior. If so,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Assist with setting goals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Recommend cutting down to maximum drinking limits or abstaining.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Agree on a plan, to include specific steps the patient should take, how drinking will be tracked, how the patient will manage high-risk situations, and who might be willing to help, such as a spouse or non-drinking friends.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Provide educational materials.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o “Are you ready to commit to changing your drinking behavior?”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o “I think it would be good if we talked about establishing goals around drinking alcoholic beverages…”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Restate your concern and reaffirm your willingness to help</td>
<td></td>
</tr>
<tr>
<td>Arrange</td>
<td>99408</td>
<td>G0445</td>
</tr>
<tr>
<td></td>
<td>Reinforce adherence, renegotiate drinking goals, encourage return visits for continued support, and rescreen, at least annually.</td>
<td></td>
</tr>
</tbody>
</table>
OARRS
Who is required to report data to OARRS?

- **Pharmacies**: All Ohio licensed pharmacies, even if located outside of Ohio (such as mail order), are required to report the dispensing of all Schedule II through V controlled substances to the OARRS database on a daily basis.

- **Prescribers**: Prescribers who personally furnish controlled substance medications in the office for take-home use must also report that information to the database.

How long does it take to get an OARRS Prescription History Report?

After logging into the website and entering the patient search criteria, a report is typically ready to view within a few seconds. A few reports (approximately 0.4%) require a manual review by a Board pharmacist before they are available.

How accurate is the database?

The report displays data entered by the dispensing pharmacy or prescriber. Thus, the report should only be used to supplement a patient evaluation and aid in the professional judgment being made by the prescriber or pharmacist. For more information about any particular prescription, contact the dispensing pharmacy or the prescriber.

Is prescription data available from neighboring states?

OARRS is currently linked to other states via PMP InterConnect®. Prescribers and pharmacists may request data from states that are listed at the bottom of the “submit request” page.

To register for an OARRS account:

Visit oarrs.pharmacy.ohio.gov and select the register button on the homepage. The online registration process takes approximately 10 minutes to complete.

When to request an OARRS report:

**Ohio Law**

In general, Ohio law requires prescribers to request and review an OARRS report before initially prescribing or personally furnishing an opioid analgesic or a benzodiazepine. Detailed information, including exceptions to this requirement, is available on the OARRS website: oarrs.pharmacy.ohio.gov.

**Ohio Regulations**

Ohio’s health care regulatory boards have also adopted regulations on when an OARRS report must be requested:

- Medical Board Rule 4731-11-11, 4731-11-12, 4730-2-10
- Nursing Board Rule 4723-9-12
- Dental Board Rule 4715-6-01
- Pharmacy Board Rule 4729-5-20

For more information on OARRS, visit our website: 

oarrs.pharmacy.ohio.gov

State of Ohio Board of Pharmacy
77 S. High Street, 17th Floor, Columbus, Ohio 43215, 614-466-4143 (option 1)
IMPROVING Patient Care.  
REDUCING Prescription Abuse.
What is OARRS?
The Ohio Automated Rx Reporting System (OARRS) is a web-based tool created to track the dispensing and personal furnishing of controlled prescription drugs to Ohio patients. OARRS is designed to monitor this information for suspected abuse or diversion (i.e., the transfer of legally prescribed drugs for illegal use) and can give a prescriber or pharmacist critical information regarding a patient’s controlled substance prescription history. This information can help prescribers and pharmacists identify high-risk patients who would benefit from early interventions.

Why is this important?
The abuse of controlled substance prescription drugs is a growing problem in Ohio and across the nation:

- Since 2003, prescription medications, such as opioid pain relievers and benzodiazepines, have contributed to the deaths of more than 11,000 Ohioans. (Source: Ohio Department of Health)
- Studies indicate nearly half of young people who inject heroin reported first abusing prescription opioids. (Source: National Institute on Drug Abuse)
- In 2014, approximately 750 million doses of opioid pain medications were dispensed to Ohio patients. This is enough to provide 65 pills to every man, woman and child in the state.
- The number of Ohio infants born exposed to maternal in-utero narcotic abuse grew almost 800% from 2004 to 2013. (Source: Ohio Department of Health)

In 2014, nearly 7 Ohioans died every day from unintentional drug overdose, or one every three-and-a-half hours. (Source: Ohio Department of Health)

Why use OARRS?
- An OARRS Prescription History Report helps to ensure a patient is getting the appropriate drug therapy.
- OARRS data is accessed through a secure website.
- Authorized users may generate customized reports 24/7.
- There is no charge to sign up for an account or to use this service.

What type of information is contained in an OARRS Prescription History Report?

- **Prescriptions filled**: Each OARRS report displays the line-item detail of all controlled substance prescriptions filled for that individual person. This includes the date of fill, the drug product and strength, the quantity dispensed, the anticipated number of days the prescription should last, the prescriber, the dispensing pharmacy, and the method of payment (including cash transactions).
- **M.E.D**: The daily morphine equivalent dose, or M.E.D.†, is included for each opioid prescription.
- **ACME**: The Active Cumulative Morphine Equivalent dose (ACME) is the total M.E.D. of all active opioid prescriptions². A high ACME score may aid in identifying at-risk patients, a crucial first step towards improving patient safety. The ACME will change from day to day as new prescriptions are filled and older prescriptions are no longer active.
The following activities are prohibited when using OARRS:

⚠️ Obtaining data on any other person (besides those listed above).

⚠️ Sharing the same account among multiple people. Each user must have their own account.

Who may have an account to access OARRS?

- **Prescribers and pharmacists** can use the system as a tool for treating current or prospective patients. This includes:
  - A patient who makes an appointment, has a referral, or presents a prescription.
  - A prescriber who needs to obtain information on a patient’s mother for the purpose of providing medical treatment to a newborn or infant patient diagnosed as opioid dependent.

- **Staff**, using delegate accounts, can submit requests on behalf of a prescriber or pharmacist.

- **Law enforcement and health care licensing boards** may access OARRS during the active investigation of a drug abuse offense.

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1 M.E.D. is calculated by converting opioids into a standard morphine equivalent value via a conversion chart created by the Centers for Disease Control and Prevention (CDC).

2 A prescription is considered active as long as the report was run between the date filled and expected number of days supply calculated by the dispensing pharmacy.
Mandatory OARRS Registration and Requests

Updated 11-24-2015

Q1) What is OARRS?

OARRS stands for the Ohio Automated Rx Reporting System. Established in 2006, OARRS is a web-based system that collects information on all outpatient prescriptions for controlled substances that are dispensed by Ohio licensed pharmacies and prescribed or personally furnished by licensed prescribers in Ohio. The information in OARRS is available to prescribers (or their delegates) when they treat patients, pharmacists (or their delegates) when presented with prescriptions from patients and law enforcement officers and health care regulatory boards during active investigations.

Q2) When will I have to register for an OARRS account and who is required to register?

Beginning January 1, 2015, Ohio law requires that each prescriber who prescribes or personally furnishes opioid analgesics or benzodiazepines, as well as all pharmacists who dispense or plan to dispense controlled substances within the state of Ohio, certify to their respective licensing board that they have registered for an OARRS account upon renewing their license.

Q3) How do I register for OARRS?

Registering for OARRS is now faster and easier than ever before. In 2014, the Board of Pharmacy implemented a new system to allow health care professionals (and their delegates) to register for an account as well as reset their passwords online. Using software to verify a user’s identification, the registration process no longer requires a paper application and can be completed in less than 10 minutes. To get started, visit www.ohiopmp.gov and click on the Register link at the top of the screen.

You will need the following information to complete your registration: 1) driver’s license number; 2) professional license number; 3) DEA License (if applicable); 4) National Provider Identifier (NPI) Number (for prescriber accounts only); and 5) office/employment information.
Q4) How do I reset my OARRS password?

Prescribers, pharmacists and delegates can now reset their password in one of the following three ways:

1) If you enter your login information incorrectly 3 times, you will be automatically redirected to the password reset page.

2) If you are already locked out and attempt to login, you will be automatically redirected to the password reset page.

3) Click the “forgot your password” link on the OARRS homepage with your user name entered into the correct field and you will be taken to the password reset (see image below).

Once directed to the password reset page, you will be asked to confirm your identity by answering three questions. Once answered correctly, you will be prompted to choose a new password.

Q5) As a prescriber, under what circumstances am I required to request, assess and document receipt of a patient’s OARRS prescription history report?

Beginning April 1, 2015, Ohio law establishes several new requirements for Ohio prescribers related to the Ohio Automated Rx Reporting System (OARRS):

- Before initially prescribing or personally furnishing an opioid analgesic or a benzodiazepine to a patient, the prescriber must request patient information from OARRS that covers at least the previous 12 months.

- The prescriber must also make periodic requests for patient information from OARRS if the course of treatment continues for more than 90 days. The requests must be made at intervals not exceeding ninety days, determined according to the date the initial request was made.
• Under the circumstances described above, the prescriber is required to assess the OARRS information and document in the patient record that a patient prescription history report was received and assessed.

*Please note: A recent change in Ohio law no longer requires an optometrist holding a therapeutic pharmaceutical agents certificate to query OARRS in the situations listed above. However, an optometrist holding a therapeutic pharmaceutical agents certificate must comply with rule 4725-16-04 of the Administrative Code regarding when to access information in OARRS.*

**Q6) Are there any exceptions to the law?**

Yes. Exceptions to mandatory checks prior to prescribing an opioid analgesic or benzodiazepine include the following scenarios:

• The drug is prescribed or personally furnished to a hospice patient or to any other patient who has been diagnosed as terminally ill (advanced practice registered nurses, physician assistants, and physicians but not dentists and optometrists);

• The drug is prescribed or personally furnished in an amount indicated for a period not to exceed seven days (all prescribers except optometrists);

• The drug is prescribed or personally furnished for the treatment of cancer or another condition associated with cancer (advanced practice registered nurses, physician assistants, and physicians but not dentists and optometrists);

• The drug is prescribed or personally furnished for administration in a hospital, nursing home, or residential care facility (advanced practice registered nurses, physician assistants, and physicians but not dentists and optometrists);

• The drug is prescribed or personally furnished to treat acute pain resulting from a surgical or other invasive procedure or a delivery (physicians only); and

• The OARRS report is not available (all prescribers).

**Q7) How do I document that I have run a report?**

A prescriber who is required to review OARRS information must document in the patient's medical record that the report was received and the information was assessed. If for some reason the OARRS report is not available, the prescriber should document in the record when the report was requested and its unavailability.

**Q8) I will not renew my license until after April 1, 2015, will I be required to request, assess and document receipt of a patient’s OARRS prescription history report as outlined above?**

Yes. Beginning April 1, 2015, you will be required to query OARRS as outlined in Q5 and Q6 of this document. While you may not be required to attest that you have registered
with the system prior to April 1, 2015, it is strongly recommended that all prescribers who prescribe or personally furnish opioid analgesics or benzodiazepines register with the system (see Q3 of this document for more information on registration).

**Q9) As a prescriber practicing in a county adjoining another state, am I required to check another state’s prescription monitoring program?**

Yes. Beginning April 1, 2015, if you are a prescriber who practices primarily in an Ohio county that adjoins another state, Ohio law requires you to request the adjoining state’s prescription drug information, which can be easily accessed through OARRS. Please note that Pennsylvania does not currently have a prescription monitoring program at this time. If one should become operational, then prescribers in counties adjoining Pennsylvania would be required to access the system. The following is a table to assist prescribers practicing in counties that adjoin another state in identifying the required interstate selections in OARRS:

<table>
<thead>
<tr>
<th>County of Practice</th>
<th>Required Interstate Selection(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams</td>
<td>Kentucky</td>
</tr>
<tr>
<td>Athens</td>
<td>West Virginia</td>
</tr>
<tr>
<td>Belmont</td>
<td>West Virginia</td>
</tr>
<tr>
<td>Brown</td>
<td>Kentucky</td>
</tr>
<tr>
<td>Butler</td>
<td>Indiana</td>
</tr>
<tr>
<td>Clermont</td>
<td>Kentucky</td>
</tr>
<tr>
<td>Darke</td>
<td>Indiana</td>
</tr>
<tr>
<td>Defiance</td>
<td>Indiana</td>
</tr>
<tr>
<td>Fulton</td>
<td>Michigan</td>
</tr>
<tr>
<td>Gallia</td>
<td>West Virginia</td>
</tr>
<tr>
<td>Hamilton</td>
<td>Kentucky, Indiana</td>
</tr>
<tr>
<td>Jefferson</td>
<td>West Virginia</td>
</tr>
<tr>
<td>Lawrence</td>
<td>West Virginia, Kentucky</td>
</tr>
<tr>
<td>Lucas</td>
<td>Michigan</td>
</tr>
<tr>
<td>Meigs</td>
<td>West Virginia</td>
</tr>
<tr>
<td>Mercer</td>
<td>Indiana</td>
</tr>
<tr>
<td>Monroe</td>
<td>West Virginia</td>
</tr>
<tr>
<td>Paulding</td>
<td>Indiana</td>
</tr>
<tr>
<td>Preble</td>
<td>Indiana</td>
</tr>
<tr>
<td>Scioto</td>
<td>Kentucky</td>
</tr>
<tr>
<td>Van Wert</td>
<td>Indiana</td>
</tr>
<tr>
<td>Washington</td>
<td>West Virginia</td>
</tr>
<tr>
<td>Williams</td>
<td>Indiana, Michigan</td>
</tr>
</tbody>
</table>

**REMINDER: PENNSYLVANIA DOES NOT HAVE AN ACTIVE PRESCRIPTION MONITORING PROGRAM AT THIS TIME. IF ONE SHOULD BECOME OPERATIONAL, THEN PRESCRIBERS IN COUNTIES ADJOINING PENNSYLVANIA WOULD BE REQUIRED TO ACCESS THE SYSTEM.**
Q10) *I am a physician assistant, how do I access prescription information provided from Kentucky’s prescription monitoring program, KASPER (Kentucky All Schedule Prescription Electronic Reporting)?*

Under Kentucky law, a physician assistant is not considered a prescriber and cannot access the system using their own account. Therefore, those physician assistants who have an OARRS prescriber account are not permitted to access KASPER information. An Ohio physician assistant that wishes to access Kentucky’s PMP in OARRS will have to do so using a delegate account.

Q11) *Is there a definition for opioid analgesics and benzodiazepines available?*

Effective March 20, 2015, section 3719.01 of the Ohio Revised Code defines an "opioid analgesic" as a controlled substance that has analgesic pharmacologic activity at the opioid receptors of the central nervous system, including the following drugs and their varying salt forms or chemical congeners:

<table>
<thead>
<tr>
<th>Generic Name</th>
<th>Brand Name</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buprenorphine</td>
<td>BUTRANS, BUPRENEX</td>
<td>Schedule III</td>
</tr>
<tr>
<td>Butorphanol</td>
<td>BUTORPHANOL NS</td>
<td>Schedule IV</td>
</tr>
<tr>
<td>Codeine (acetaminophen and other combination products)</td>
<td>TYLENOL W. CODEINE #3, TYLENOL W. CODEINE #4</td>
<td>Schedule III</td>
</tr>
<tr>
<td>Dihydrocodeine/ASA/caffeine</td>
<td>SYNALGOS-DC</td>
<td>Schedule III</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>DURAGESIC, ACTIQ, ABSTRAL, LAZANDA, FENTORA, SUBSYS, SUBLIMAZE, ONSOLIS, IONSYS</td>
<td>Schedule II</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>ZOHYDRO ER</td>
<td>Schedule II</td>
</tr>
<tr>
<td>Hydrocodone (acetaminophen combination products)</td>
<td>XODOL, MAXIDONE, ZYDONE, LORCET, HYCET, ZAMICET, CO-GESIC, ZOLVIT, STAGESIC, LIQUICET, LORTAB, VICODIN, NORCO</td>
<td>Schedule II (Effective October 6, 2014)</td>
</tr>
<tr>
<td>Hydrocodone (ibuprofen combination products)</td>
<td>IBUDONE, REPREXAIN, VICOPROFEN</td>
<td>Schedule II</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>DILAUDID, EXALGO</td>
<td>Schedule II</td>
</tr>
<tr>
<td>Meperidine</td>
<td>DEMEROL</td>
<td>Schedule II</td>
</tr>
<tr>
<td>Methadone</td>
<td>DOLOPHINE, METHADOSE</td>
<td>Schedule II</td>
</tr>
<tr>
<td>Morphine Sulfate</td>
<td>MS CONTIN, AVINZA, DURAMORPH, KADIAN, DEPUDOR, ASTRAMORPH, IMFUMORPH</td>
<td>Schedule II</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>OXECTA, ROXICODONE, OXYCONTIN</td>
<td>Schedule II</td>
</tr>
<tr>
<td>Oxycodone (acetaminophen, aspirin and other combination products)</td>
<td>PERCODAN, PERCOCET, ROXICET, ENDOCET, XOLOX, TYLOX, PRIMLEV, MAGNACET, XARTEMIS XR</td>
<td>Schedule II</td>
</tr>
<tr>
<td>Oxymorphone</td>
<td>OPANA, NUMORPHAN</td>
<td>Schedule II</td>
</tr>
<tr>
<td>Tapentadol</td>
<td>NUCYNTA</td>
<td>Schedule II</td>
</tr>
<tr>
<td>Tramadol</td>
<td>ULTRAM, ULTRACET, RYZOLT, CONZIP, RYBIX</td>
<td>Schedule IV (Effective August 18, 2014)</td>
</tr>
</tbody>
</table>
Effective March 20, 2015, section 3719.01 of the Ohio Revised Code defines a “benzodiazepine” as a controlled substance that has United States Food and Drug Administration (FDA) approved labeling indicating that it is a benzodiazepine, benzodiazepine derivative, triazolobenzodiazepine, or triazolobenzodiazepine derivative, including the following drugs and their varying salt forms or chemical congeners:

<table>
<thead>
<tr>
<th>Generic Name</th>
<th>Brand Name</th>
<th>Schedule</th>
<th>FDA Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alprazolam</td>
<td>ALPRAZOLAM, XANAX, NIRAVAM</td>
<td>Schedule IV</td>
<td>Benzodiazepine</td>
</tr>
<tr>
<td>Chlordiazepoxide Hydrochloride</td>
<td>A-POXIDE, CHLOR POX, CHLORDIA-XE CHLORDIAZEPoxide, CHLORDIAZEPoxide HCL</td>
<td>Schedule IV</td>
<td>Benzodiazepine</td>
</tr>
<tr>
<td></td>
<td>CHLORDIAZEPoxide HYDROCHLORIDE, LIBACA, LIBRITABS, LIBRIUM, MITRAN, POXI,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>REPOSANS-10, RO-POXIDE, SEREEN, SKLYGEN, SPAT-10, SPAZ-10, SPAZ-5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clobazam</td>
<td>ONFI</td>
<td>Schedule IV</td>
<td>Benzodiazepine</td>
</tr>
<tr>
<td>Clonazepam</td>
<td>CLONAZEPAM, CLONAZEPAM, KLONOPIN</td>
<td>Schedule IV</td>
<td>Benzodiazepine</td>
</tr>
<tr>
<td>Clobazapate Dipotassium</td>
<td>CLORAZEPATE, CLORAZEPATE DIPOTASSIUM, GEN-XENE, TRANXENE, TRANXENE T-TAB,</td>
<td>Schedule IV</td>
<td>Benzodiazepine</td>
</tr>
<tr>
<td></td>
<td>TRANXENE-SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dextrose/Lorazepam</td>
<td>LORAZEPAM-DEXTROSE</td>
<td>Schedule IV</td>
<td>Benzodiazepine</td>
</tr>
<tr>
<td>Dextrose/Midazolam Hydrochloride</td>
<td>MIDAZOLAM-DEXTROSE</td>
<td>Schedule IV</td>
<td>Benzodiazepine</td>
</tr>
<tr>
<td>Diazepam</td>
<td>DIASTAT, DIASTAT ACUDIAL, DIASTAT PEDIATRIC, DIASTAT UNIVERSAL, DIAZEPAM,</td>
<td>Schedule IV</td>
<td>Benzodiazepine Derivative</td>
</tr>
<tr>
<td></td>
<td>DIAZEPAM INTENSOL, DIAZEPAM RECTAL DELIVERY SYSTEM, DIZAC, D-VAL, ED-VAL,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q-PAM, RO-AZEPAM, T-QUIL, VALIUM, VALRELEASE, X-O SPAZ, ZETRAN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estazolam</td>
<td>ESTAZOLAM, PROSOM</td>
<td>Schedule IV</td>
<td>Triazolobenzodiazepine Derivative</td>
</tr>
<tr>
<td>Flurazepam Hydrochloride</td>
<td>DALMANE, FLURAZEPAM HYDROCHLORIDE, FLURAZEPAM</td>
<td>Schedule IV</td>
<td>Benzodiazepine</td>
</tr>
<tr>
<td>Lorazepam</td>
<td>ATIVAN, LORAZ, LORAZEPAM, LORAZEPAM AMERINET, NOVALPLUS LORAZEPAM, PROBATE,</td>
<td>Schedule IV</td>
<td>Benzodiazepine</td>
</tr>
<tr>
<td></td>
<td>LORAZEPAM-SODIUM CHLORIDE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIDAZOLAM</td>
<td>MIDAZOLAM, MIDAZOLAM HCL AMERINET CHOICE, NOVALPLUS MIDAZOLAM HYDROCHLORIDE,</td>
<td>Schedule IV</td>
<td>Benzodiazepine</td>
</tr>
<tr>
<td></td>
<td>VERSED, MIDAZOLAM HYDROCHLORIDE-SODIUM CHLORIDE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxazepam</td>
<td>OXAZEPAM, SERAX</td>
<td>Schedule IV</td>
<td>Benzodiazepine</td>
</tr>
<tr>
<td>Quazepam</td>
<td>DORAL, DORMALIN</td>
<td>Schedule IV</td>
<td>Benzodiazepine</td>
</tr>
<tr>
<td>Temazepam</td>
<td>RESTORIL, TEMAZ, TEMAZEPAM</td>
<td>Schedule IV</td>
<td>Benzodiazepine</td>
</tr>
<tr>
<td>Triazolam</td>
<td>HALCION, TRIAZOLAM</td>
<td>Schedule IV</td>
<td>Triazolobenzodiazepine</td>
</tr>
</tbody>
</table>
Q12) Can a delegate run a patient’s OARRS report on behalf of the prescriber in order satisfy the requirements of the law listed in Q5 of this document?

Yes. A delegate who runs a report on behalf of a prescriber will satisfy the requirements of the law listed in Q5 of this document. However, the delegate may only run a patient’s prescription history report and is not permitted to interpret the results. Please note that delegates must have their own OARRS account with their own unique user name and password. They may not run the report under the prescriber’s user name and password. The law requires documentation in the patient’s medical record that the report was received and the information was assessed.

To register for a delegate account:
1) Go to www.ohiopmp.gov;
2) Click on the “register” button at the top of the page;
3) Follow the prompts for delegates to complete the registration.

Once the delegate account is created, the delegate will need to inform the supervising prescriber or pharmacist of their username so the supervisor can link the accounts (see Q13).

Q13) How do I add or remove delegates from my account?

For prescribers and pharmacists to add or remove delegates, complete the following steps:

1. Log into your account by visiting oarrs.pharmacy.ohio.gov. Click on “Related Links” and select “Add/Remove Delegate.”

2. You will then be required to complete authentication questions.
3. You can then click the “Remove Delegate” button next to the delegates you wish to remove or enter the user name of the delegates you wish to add.

**IMPORTANT: YOU CANNOT USE THIS FUNCTION TO ADD A DELEGATE WHO DOES NOT HAVE AN EXISTING OARRS ACCOUNT.**

**Q14) Who can serve as a prescriber or pharmacist delegate?**

For the purposes of OARRS, any individual who is either supervised or employed by a prescriber or pharmacist can serve as their delegate. For more information on the roles and responsibilities of a delegate, please review the delegate acceptable use policies here: [https://www.ohiopmp.gov/portal/docs.aspx](https://www.ohiopmp.gov/portal/docs.aspx).

**Q15) How many delegates can I have?**

The Ohio State Board of Pharmacy has determined that a prescriber or pharmacist may have as many delegates as they believe they can adequately supervise. It is up to the supervising prescriber or pharmacist to decide how many delegates they designate.

**Q16) I work in a group practice. Can I have my delegates run OARRS reports for other prescribers in the practice?**

No. Only delegates added to a prescriber’s account can run OARRS for that prescriber’s patients. This ensures a delegate is not accessing unauthorized patient information. In this situation, it is recommended that delegates are added to all prescriber accounts in the existing practice setting. A delegate can be added to more than one prescriber or pharmacist account (see Q13).

**Q17) I am a prescriber that holds an Ohio license but practices out of state. Am I required to register for an OARRS account?**

No. Only prescribers that practice in the state of Ohio are required to obtain an OARRS account.
Q18) **I am a pharmacist who maintains an Ohio license but does not practice pharmacy. Am I required to register for an OARRS account?**

No. Only pharmacists who dispense controlled substances to patients residing in Ohio are required to register for an OARRS account.

Q19) **I am a pharmacy intern. Am I required to register for an OARRS account?**

No. Only pharmacists who dispense controlled substances to patients residing in Ohio are required to register for an OARRS account. Pharmacy interns are permitted to obtain delegate accounts under the oversight of a practicing pharmacist.

Q20) **Can I include an OARRS prescription history report in the patient’s medical chart?**

Yes. Effective March 20, 2015, Ohio law permits a prescriber or pharmacist to include an OARRS report as part of the patient’s medical record. Once included in the chart, the report is deemed part of the medical record subject to disclosure on the same terms and conditions as listed in section 3701.74 of the Revised Code.

Q21) **Can I review a patient’s OARRS report with the patient or a patient’s representative?**

Yes. An Ohio prescriber or pharmacist can review the information included in an OARRS report with a patient.

Q22) **I am an optometrist holding a therapeutic pharmaceutical agents certificate. Under what circumstances am I required to request, assess and document receipt of a patient’s OARRS prescription history report?**

Ohio law no longer requires an optometrist holding a therapeutic pharmaceutical agents certificate to meet the requirements listed in Q5 of this document. However, an optometrist holding a therapeutic pharmaceutical agents certificate is still required to register for an OARRS account if they practice within the state of Ohio and if prescribe or personally furnish opioid analgesics.

In addition, an optometrist holding a therapeutic pharmaceutical agents certificate must comply with [rule 4725-16-04 of the Ohio Administrative Code](http://www.pharmacy.ohio.gov/contact.aspx) regarding when to access information in OARRS.

Q23) **Who do I contact for more information?**

If you are a pharmacist, pharmacy intern, location licensed as a terminal distributor of dangerous drugs or have an OARRS account-related question, please contact the Ohio State Board of Pharmacy at 614-466-4143 or visit [http://www.pharmacy.ohio.gov/contact.aspx](http://www.pharmacy.ohio.gov/contact.aspx).
If you are a prescriber, please contact your respective regulatory board using the information below.

State Medical Board of Ohio: (614) 466-3934
Ohio Board of Nursing: practice@nursing.ohio.gov
Ohio State Dental Board: (614) 466-2580
Ohio State Optometry Board: (614) 466-5115

**Q24) Are staff (delegates) able to register for OAARS under multiple prescribers?**

A prescriber may have as many delegates as they want to supervise, and delegates may be assigned to multiple prescribers. The connection may be done on-line. The prescriber will log their account, click on “related links/add delegate” then enter the user name of the delegate (see Q13 for more information).

**Q25) Are some commonly prescribed sleep medications included in the definition of a benzodiazepine?**

No. Schedule IV controlled substance sleep medications such as Zolpidem (Ambien) and Lunesta Eszopiclone (Lunesta) are not included in the definition of a benzodiazepine. **However, there are a number of benzodiazepines that may be used to treat sleep disorders. For a definition of a benzodiazepine, please see Q11 of this document.**

**Q26) Can a prescriber or delegate run a report on a patient the day before that patient’s scheduled appointment?**

Yes. As long as there is an existing or potential prescriber/patient relationship, a prescriber or delegate may query the system the day before a patient’s scheduled appointment.

**Q27) Are there other situations where I am required to request a patient’s prescription history report?**

Yes. The following health care regulatory boards have rules regarding required OARRS checks for controlled substance medications:

- Medical Board: OAC 4731-11-11; 4731-11-12; 4730-2-10
- Nursing Board: OAC 4723-9-12
- Dental Board: OAC 4715-6-01
- Optometry Board: OAC 4725-16-04
- Pharmacy Board: OAC 4729-5-20
Q28) I currently use the NARxCHECK program to review a patient’s prescription history in OARRS. Does this satisfy the mandatory requirements to review a patient’s information in OARRS? **UPDATED**

Yes. The NARxCHECK program is a service that automatically queries OARRS on behalf of a prescriber or pharmacist. Please be advised that the State of Ohio Board of Pharmacy requires NARxCHECK to be able to provide the identification of the prescriber who accessed a patient’s report. **Therefore, use of NARxCHECK satisfies the mandatory use requirements in the Ohio Revised Code and Ohio Administrative Code.**

Ohio law also requires that each prescriber who prescribes or personally furnishes opioid analgesics or benzodiazepines, as well as all pharmacists who dispense or plan to dispense controlled substances within the state of Ohio, certify to their respective licensing board that they have access to OARRS upon renewing their license. While a prescriber or pharmacist with access to NARxCHECK can meet this requirement even if they do not have an individual OARRS account, these licensees are strongly encouraged to obtain their own individual registration in the event that the service is unavailable.
Ohio Prescription Monitoring Program

The Ohio Legislature passed legislation, which allows the Board of Pharmacy (BOP) to develop its Prescription Monitoring Program (PMP) called the Ohio Automated Rx Reporting System (OARRS). (See ORC 4729.75 – 4729.84) The legislation became law on May 18, 2005, and the rules needed to implement the law became effective on January 1, 2006. The text of the law is available in the Drug Laws of Ohio. The rules are available on our website at www.pharmacy.ohio.gov. Click on “Laws & Rules,” then on “Administrative Code Rules,” and scroll down to “Chapter 4729-37 Drug Database.”

The BOP manages the collection of required data from all CII-CV (and other dangerous drugs established by rule) prescriptions submitted electronically by pharmacies, dispensing prescribers, and wholesalers.

This document applies to all outpatient dispensing by pharmacies and prescribers who are personally furnishing medications (i.e. acting as the “pharmacy”) for their own patients.

The Prescription Reporting Requirements

Every in-state pharmacy and dispensing prescriber shall report all out-patient dispensing of any controlled substance regardless of the state in which the patient lives. This also includes any wholesale sales of any controlled substance to prescribers.

Every out-of-state pharmacy that holds an Ohio Terminal Distributor license shall report all outpatient dispensing of any controlled substance product to an Ohio resident.

“Outpatient” is defined as any person who receives drugs for use outside of an institutional facility (OAC 4729-17-01 (G)).

Submission of Data

Prior to submitting data directly to the BOP, each reporting pharmacy (or pharmacy chain) or prescriber must register at www.ohiopmp.gov with a “Dispensing Data Upload” account. Refer to page 5 for instructions on the registration.

Data may be submitted in any of the following forms. Reports must be submitted no later than 24 hours after dispensing although they may be submitted more frequently.

Electronic files:

A data file with the dispensing information shall be uploaded to the BOP in a format consistent with either American Society of Automation in Pharmacy (ASAP) version 4.2 standards. Format details for ASAP 4.2 are located at the end of this document.

Data collected from the pharmacies/dispensing prescribers shall include the following information for each prescription:
1. Patient’s full name, residential address, and telephone number
2. Patient’s accurate date of birth and gender,
3. Prescription number or serial number assigned by the dispenser,
4. National Drug Code of the drug dispensed,
5. Quantity of drug,
6. Days’ supply
7. Date of dispensing,
8. Date prescription written or authorized,
9. Number of refills authorized,
10. Refill number,
11. Prescriber’s full name and Prescriber’s DEA registration identifier number (or other identifier accepted by the Board), including DEA suffix if applicable and the Prescriber’s National Provider Identifier (NPI). For prescribers with no DEA number, use either the NPI number or OHXXXXXXX where the X’s are the last seven digits of their professional license number. Add zeros to the end of the number if needed to report a full 10 digits.
12. Pharmacy’s DEA registration number (or other identifier accepted by the Board) and the Pharmacy’s National Provider Identifier (NPI),
13. Pharmacy’s name, address, and telephone number, and
14. Method of payment (from one of the following: Private pay (cash), Medicaid, Medicare, Commercial Insurance, or Worker’s compensation. Prescriptions with a pay code of “other” will not be accepted.)

Secure File Transfer Protocol (SFTP)
Note: This is the preferred method of data submission!
- The file name should be the pharmacy DEA number and creation time followed by TXT (ex: AB1234567.HHMMSS.TXT).

For information regarding sending a Secure FTP submission including instructions, user names or passwords, please refer to the confirmation notice sent to your e-mail upon registration or contact OARRS at pharmacy@ohiopmp.gov.

HTTPS Manual Entry
- Individual prescription records and drugs personally furnished by a prescriber to a patient may be entered manually at www.ohiopmp.gov. Log into the data upload account and enter data under “Pharmacy Rx/Manual Rx entry.”

When a submission is received and processed, an e-mail will be sent to the primary and secondary (if provided) pharmacy/prescriber contacts confirming the date processed, the number of records accepted, the number of records in error and the name of the submitted file. If there were errors present in the submission, a Microsoft Excel document will be attached to the e-mail detailing the error(s). Due to the insecure nature of e-mail, no Protected Health Information (PHI) will be included in this document. Should you require additional information about the error(s), which may include PHI, a complete error document will be available in your SFTP account.

Rejection of Data
Data will be rejected if it does not meet the data requirements specified and the layouts and requirements of the ASAP 4.2 standards. The submitter will be notified, by e-mail, of the reason
for failure (see section above detailing the e-mail response). Only the records in error will be rejected. You will not need to resubmit the entire file.

Accounting for Submissions

BOP will e-mail an acknowledgement of all submissions, regardless of submitter or submission method. Provide an e-mail address when registering and keep the contact information current.

Accounting for No Reportable Prescriptions dispensed

1. If a pharmacy NEVER dispenses a controlled substance or reportable product (e.g. pharmacies that only dispense respiratory drugs or diabetes drugs, etc.), you may request an exemption to OARRS reporting. Send OARRS a letter (with manual signature of the Responsible Person) to that effect. We will remove the pharmacy from the list of those that we expect to report. Include the telephone number, Terminal Distributor Number and the DEA number of the pharmacy in the letter.

2. If you occasionally dispense a controlled substance or reportable product, you need to report the dispensing in the appropriate reporting period.

3. If you have zero prescriptions to report for any day, you must report zero. A report of “zero” is very different from “failed to report”. A “Zero Report” consists of a completed FTP transmission or an online entry via the website.

Reporting of controlled substances which are personally furnished by a prescriber:

Ohio Revised Code 4729.291 allows licensed health professionals authorized to prescribe drugs to personally furnish a limited amount of controlled drugs to their own patients. “Personally furnish” means the prescriber has provided a controlled substance product to a patient for the patient to use outside of the prescriber’s office. This includes samples. This does not include medications which are administered in the office as part of an in-office procedure or treatment or prescriptions written by the prescriber to be filled in a pharmacy.

A patient may receive only an amount of a controlled substance to cover a 72-hour period AND in any 30 days, a prescriber may only furnish to all of their patients a total of 2500 dosage units or less. Additionally, per ORC 4729-37-03(E), all prescribers who personally furnish controlled medication must report those medications into OARRS, the state’s prescription monitoring database. Reporting, or a “zero report” indicating no dispensing on a particular day, is required on a daily basis.

Other helpful guidance/hints for both pharmacies and prescribers

I. Establishing an OARRS data upload account
II. Adding information to the database
III. Submitting a “zero report”
IV. Marking business days as being closed
I. Establishing an OARRS data upload account
   
   a. Go to www.ohiopmp.gov, click on “Register” and select “Dispensing Data Upload” “Pharmacy/dispensing physicians”, then “Next”:

   ![Dispensing Data Upload]

   b. Fill out the account registration form and “Submit”. Keep track of the user name and password you select. This is an office account to upload information; the user name and password may be shared. You cannot look up a patient from this account. We recommend having a secondary contact person, as well. You will log into this account to upload product that is dispensed or personally furnished.

II. Adding information into the database (manually reporting your dispensing):
   
   a. Log into OARRS (www.ohiopmp.gov) using the username and password you just created above
   
   b. Go to “Pharmacy Rx/Manual Rx Entry” (Note: the “Pharmacy Rx” button will be used for many functions you will need.)
   
   c. Fill in the blanks
      
      i. “Dispenser DEA” is the DEA number associated with the site license. This may or may not be the same person as the “prescriber.”
      
      ii. “Prescriber DEA” is the DEA of the actual prescriber furnishing the product
      
      iii. Complete the patient information screen. Information must be accurate and complete
      
      iv. Complete the Rx information. The NDC number is an 11-digit number located on the packaging of the product. Quantities are in numbers of tablets or mLs. A four-ounce bottle of cough syrup is 120mL (or whatever the bottle has on its label), NOT “1” bottle” or “4” ounces.”
      
      v. Submit when complete
   
   d. Submitting information on products dispensed must be completed within 24 hours of the dispense. If NO dispensing is done on a particular day, a ZERO report is required to be submitted.

III. Submitting a ZERO report
   
   a. Log into OARRS (www.ohiopmp.gov) using your username and password.
   
   b. Go to “Pharmacy Rx/Submit Zero Report”
   
   c. Enter your Pharmacy/dispenser DEA number
   
   d. Enter your starting and ending dates, then “Submit”
   
   e. You can use the Submit Zero Report page to create the zero report for a future holiday closure. Log into your account any time before the holiday; select the day you will be closed as both the start and end date and click “Submit.”
IV. Marking business days as being closed

Every day must be accounted for in OARRS. For days which you are normally closed, such as a weekend, we still need a zero report. To facilitate this, OARRS can automatically submit the zero report on your behalf for regular days closed.

a. Log into OARRS (www.ohiopmp.gov) using your username and password.
b. Go to “Pharmacy Rx/Business Days”
c. Enter your Pharmacy/dispenser DEA number
d. Check the box next to the days the practice/pharmacy is closed, then click “Save.”

Assistance and Support

OARRS is available to provide assistance and information to individual pharmacies, chain pharmacies, software vendors, and other entities required to submit data.

Questions concerning interpretations of technical and compliance matters may be referred to OARRS; however, the authority for the final decisions, including interpretation of regulations, will rest with the State of Ohio Board of Pharmacy.

Contact Information

STATE OF OHIO BOARD OF PHARMACY
ATTN: OARRS
77 South High Street, Room 1702
Columbus, OH 43215-6126

TEL: 614/466-4143 (Option 1)
OARRS E-MAIL: pharmacy@ohiopmp.gov
OARRS FAX: 614/644-8556

Chad Garner
Prescription Monitoring Program Administrator
OHIO Prescription Monitoring Program
List of required fields
From ASAP Version 4.2**
September 2011

*Please Note: This is a character-delimited format. For details and examples please consult the ASAP Rules Based Standard Implementation Guide for Prescription Monitoring Programs, Version 4, Release 2. This document is available from American Society for Automation in Pharmacy (www.asapnet.org or phone 610-825-7783).

You may send data in any field listed below, including those that are “Not used for Ohio PMP” if you wish. However, do not use any additional fields.

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<thead>
<tr>
<th><strong>HEADER</strong></th>
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<td>PHA 07</td>
<td>Pharmacy City</td>
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<td>PHA 08</td>
<td>Pharmacy State Address – USPS 2 letter code</td>
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<td>Pharmacy Zip code</td>
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<td>DETAIL</td>
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<td>PAT 11</td>
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Responses will continue to be e-mails called "OARRS Data File Report". The e-mail will include:

- # of Prescriptions Accepted:
- # of Prescriptions Accepted with Warnings:
- # of Prescriptions Rejected due to Errors:
- # of Days reported as Zero:
- # of Prescriptions Rejected as Duplicates:

All errors should be corrected and resubmitted within 24 hours of discovery.
State Announces New Overdose Prevention Campaign

Dear Ohio Pharmacist,

In May of this year, the Ohio Department of Health and the Ohio Department of Mental Health and Addiction Services launched a targeted campaign to raise overdose death awareness in the 15 Ohio counties that accounted for 80% of Ohio’s fentanyl-related drug overdose deaths in 2014. Those counties are Butler, Clark, Clermont, Cuyahoga, Franklin, Hamilton, Lorain, Lucas, Marion, Montgomery, Ross, Scioto, Stark, Summit, and Warren.

Fentanyl, a synthetic opioid that is estimated to be 30 to 50 times more potent than heroin, is becoming more and more prevalent across Ohio. A total of 503 fentanyl-related deaths occurred in the state during 2014, up from 84 in 2013. The campaign looks to prevent those numbers from further increasing by teaching people to look for signs of abuse and encouraging them to obtain the opioid overdose reversal drug, naloxone.

The campaign will be disseminated through billboards, a radio spot, and mobile and digital ads. Anyone interested in the campaign can also visit www.odh.ohio.gov/stopoverdoses, where there is opioid abuse information as well as explanations on how to obtain naloxone without a prescription at participating pharmacies.

But none of these campaign tools can have as much impact on a patient as you can, especially if you are operating in the specific counties mentioned previously. The State of Ohio Board of Pharmacy would like to remind you that your professional guidance can be of great significance to your patients. As a trusted pharmacist, you can help strengthen this campaign by helping to educate your patients and provide them information on how to obtain naloxone.

As a reminder, information on naloxone dispensing by a pharmacist without a prescription can be accessed at www.pharmacy.ohio.gov/naloxone.

On behalf of the Board, I want to once again thank you for the vital work you do every single day. With your help, we can continue to keep the citizens of Ohio informed about opioid abuse. The more we do, the better chance we have at saving lives.

Sincerely,

Steven W. Schierholt, Esq
Executive Director
State of Ohio Board of Pharmacy

Reporting Gabapentin Products to OARRS – Effective December 1, 2016

Effective December 1, 2016, the following entities are required to submit the specified dispensing, personal furnishing, or wholesale sale information on all products containing gabapentin to the Ohio Automated Rx Reporting System (OARRS):

♦ All pharmacies located outside this state and licensed as a terminal distributor of dangerous drugs that dispense gabapentin to outpatients residing in this state.
♦ All pharmacies located within this state and licensed as a terminal distributor of dangerous drugs that dispense gabapentin to all outpatients.
♦ All wholesalers licensed as a wholesale distributor of dangerous drugs that sell gabapentin at wholesale shall report those drug transactions.
♦ All pharmacies licensed as a terminal distributor of dangerous drugs that sell gabapentin at wholesale shall report those drug transactions.
♦ All prescribers, except veterinarians, located within this state who personally furnish gabapentin to outpatients, including samples.

For more information, visit www.pharmacy.ohio.gov/gabapentin.
FDA Calls for Review of Opioids Policy, Announces Action Plan

As part of a broad national campaign to address opioid abuse, dependence, and overdose, Food and Drug Administration (FDA) Deputy Commissioner for Medical Products and Tobacco, Dr Robert Califf, along with other FDA leaders, developed a comprehensive action plan to reassess the agency's approach to opioid medications. The objective of the plan is to "focus on policies aimed at reversing the epidemic, while providing patients in pain access to effective relief," indicates the FDA news release. FDA's plan is to:

- Re-examine the risk-benefit paradigm for opioids and ensure that the agency considers their wider public health effects;
- Convene an expert advisory committee before approving any new drug application for an opioid that does not have abuse-deterrent properties;
- Assemble and consult with the Pediatric Advisory Committee regarding a framework for pediatric opioid labeling before any new labeling is approved;
- Develop changes to immediate-release (IR) opioid labeling, including additional warnings and safety information that incorporate elements similar to the extended-release/long-acting (ER/LA) opioid analgesics labeling that is currently required;
- Update Risk Evaluation and Mitigation Strategy requirements for opioids after considering advisory committee recommendations and review of existing requirements;
- Expand access to, and encourage the development of, abuse-deterrent formulations of opioid products;
- Improve access to naxalone and medication-assisted treatment options for patients with opioid use disorders; and
- Support better pain management options, including alternative treatments.

FDA will also seek guidance from outside experts in the fields of pain management and drug abuse. The National Academies of Sciences, Engineering, and Medicine has been asked by FDA to help develop a framework for opioid review, approval, and monitoring that balances individual need for pain control with considerations of the broader public health consequences of opioid misuse and abuse. The news release is available on FDA's website at www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm484765.htm.

More Selected Medication Safety Risks to Manage in 2016

This column was prepared by the Institute for Safe Medication Practices (ISMP). ISMP is an independent nonprofit agency and federally certified patient safety organization that analyzes medication errors, near misses, and potentially hazardous conditions as reported by pharmacists and other practitioners. ISMP then makes appropriate contacts with companies and regulators, gathers expert opinion about prevention measures, and publishes its recommendations. To read about the risk reduction strategies that you can put into practice today, subscribe to ISMP Medication Safety Alert Community/Ambulatory Care Edition by visiting www.ismp.org. ISMP provides legal protection and confidentiality for submitted patient safety data and error reports. Help others by reporting actual and potential medication errors to the ISMP National Medication Errors Reporting Program Report online at www.ismp.org. Email: ismpinfo@ismp.org.

Manufacturer Drug Labeling, Packaging, Nomenclature – Per Liter Electrolyte Content on Various Sizes of Manufacturers' IV Bags

The way electrolyte concentrations are expressed on intravenous (IV) bags in volumes less than one liter has tripped up many practitioners over the years. Concentrations are listed per liter, not per container volume. For example, a 250 mL 0.9% sodium chloride injection container label lists the sodium chloride content as 154 mEq/1,000 mL, rather than 38.5 mEq/250 mL. Commercially available parenteral nutrition products available in containers greater than one liter also express the electrolyte ingredients "per liter."

An error occurred while a pharmacist was preparing a bag of 3% sodium chloride after the pharmacy unexpectedly ran out of the commercially available bags. The pharmacist mistakenly set the proportion up as 154 mEq/0.9% = x/3% and calculated that he needed 513 mEq of sodium chloride, when he actually only needed 256-257 mEq of sodium chloride for a 500 mL bag (77 mEq/0.9% = x/3%).

For single- and multiple-dose injectables, the United States Pharmacopeial Convention (USP) requires the strength per total volume as the primary, prominent display on the label, followed in close proximity by the strength per mL enclosed in parentheses. This should apply to large volume parenterals as well. Until it does, pharmacists who calculate electrolyte quantities should seek out an independent double check. Sufficient quantities of commercially available products should be used whenever possible. For products that routinely require admixture, an instruction sheet should be available to guide the process.

Patient Education – Discharging Patients Who Do Not Understand Their Discharge Medications

Despite the importance of teaching patients about the medications to take after discharge, studies suggest patients often do not receive this information adequately. A study by the Centers for Medicare & Medicaid Services reports an average national hospital readmission rate of 17.5% to 19.5%. The discharge process is often rushed and interrupted, making it difficult to ensure patients know what medications to take, the correct doses, and how to take them after discharge. Immediately prior to discharge is not an ideal time for education either, as patients may be overwhelmed with the amount of information being provided.

Medication errors that occur during the first few weeks after discharge from the hospital can cause significant harm. In fact, one study showed that almost a quarter of all post-discharge errors were considered serious or life-threatening, and that
most of these errors happened within the first 14 days after discharge. The highest predictors of post-discharge errors included low health literacy and low subjective numeracy (self-reported measure of the ability to perform mathematical tasks and the preference for numerical versus prose information (i.e., ordinary words)).

Perhaps this risk is best addressed with a redesigned discharge process that facilitates the most effective means of teaching patients about their medications, initiating education earlier in the hospital stay, and providing post-discharge support.

References

USP Publishes Chapter on Handling Hazardous Drugs in Healthcare Settings

A new general chapter, <800> Hazardous Drugs—Handling in Healthcare Settings, has been published as part of a suite of health care quality standards included in the United States Pharmacopeia – National Formulary (USP–NF) by USP to help prevent and/or limit hazardous drug exposures in health care. The standard applies to all health care personnel, such as physicians, nurses, veterinarians, pharmacists, and technicians, and all health care facilities where hazardous drugs are handled or manipulated, including their storage and distribution. Health care facilities have more than two years to conform to the new requirements and have until July 1, 2018, to implement the new standard, indicates a USP press release, which is available at www.usp.org in the News section. General Chapter <800> is available in both the First Supplement to USP 39–NF 34 and the USP Compounding Compendium.

FDA Provides Training Video on Keeping Medications Safe in Emergency Situations

FDA Drug Info Rounds, a series of online videos, provides important and timely drug information to practicing clinical and community pharmacists so they can help patients make better decisions. In the February 2016 Drug Info Rounds video, "Emergency Preparedness – Keeping Medications Safe,” pharmacists discuss educating patients about having a plan in place for emergency medication and medical supplies and the resources available for pharmacists to use when advising their patients. Drug Info Rounds is developed with contributions from pharmacists in FDA’s Center for Drug Evaluation and Research, Office of Communications, Division of Drug Information. All Drug Info Rounds videos can be viewed on the FDA website at www.fda.gov/Drugs/ResourcesForYou/HealthProfessionals/ucm211957.htm.

FDA Requires Class-Wide Labeling Changes for IR Opioid Analgesics

FDA is requiring class-wide safety labeling changes for IR opioid pain medications, which will include a new boxed warning about the serious risks of misuse, abuse, addiction, overdose, and death. The announcement is part of the agency’s effort to educate prescribers and patients about the potential risks related to opioid use. FDA is also requiring several safety labeling changes across all prescription opioid products to include additional information on the risk of these medications. The new requirements are part of a plan to reassess the agency’s approach to opioid medications. The plan is focused on reversing the epidemic of abuse and overdose while still providing patients in pain access to effective relief, indicates the FDA news release at www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm491739.htm?source=govdelivery&utm_medium=email&utm_source=govdelivery.

Further, FDA is requiring updated labeling for all opioids (both IR and ER/LA products) to include safety information about potentially harmful drug interactions with other medicines that can result in a serious central nervous system condition called serotonin syndrome. In addition, updated labeling will include information about opioid effects on the endocrine system, including a rare but serious disorder of the adrenal glands (adrenal insufficiency) and decreased sex hormone levels (androgen deficiency). More information about these risks is available in FDA’s Drug Safety Communication announcement, available at www.fda.gov/Drugs/DrugSafety/ucm489676.htm.

FDA Issues Alert Regarding All Unexpired Sterile Drug Products Produced by Medusa Pharmacy

On April 1, 2016, FDA alerted health care providers and patients not to use products marketed as sterile from Medusa Pharmacy in Birmingham, AL. Insanitary conditions, including poor sterile production practices, were identified by FDA investigators during a recent inspection at Medusa’s facility. The affected products were distributed nationwide and internationally. The alert applies to all unexpired drug products that are intended to be sterile. Health care providers should check their medical supplies, quarantine any drug products marketed as sterile from Medusa, and not administer them, indicates the FDA Safety Alert, available at www.fda.gov/Safety/MedWatch/SafetyInformation/SafetyAlertsForHumanMedicalProducts/ucm493871.htm.
New and Updated Rules – First and Second Quarter 2016

The Board has adopted a number of rule changes in the first and second quarter of 2016. To assist licensees in maintaining compliance with these requirements, a complete list of the changes along with implementation dates can be accessed at www.pharmacy.ohio.gov/2016rules. Some highlights include the following:

♦ Changes to the Board’s responsible person (RP) rule (Ohio Administrative Code (OAC) 4729-5-11), including new requirements for wholesalers and reduction in the notification time when there is a change of RP.
♦ Personal furnishing requirements for prescribers licensed as terminal distributors of dangerous drugs (OAC 4729-5-17).
♦ A new central fill pharmacy rule (OAC 4729-5-28).
♦ Updates to the security and control requirements for terminal distributors of dangerous drugs (OAC 4729-9-11).

Roundtable and Law Presentations at the University of Toledo

The Board has added dates in northwest Ohio to its schedule of roundtables and law presentations.

For more information on the roundtables, including registration information, visit www.pharmacy.ohio.gov/roundtables.

For more information on the law presentations, including registration information, visit www.pharmacy.ohio.gov/2016law.

Zika Resources Available

Mosquito season runs from May through October, and bites from infected mosquitoes can transmit serious diseases such as the Zika virus or West Nile virus. While the primary mosquito that transmits the Zika virus is found in the tropics and southern United States and not known to be established in Ohio, it does have a “cousin” that is found in parts of Ohio and may potentially transmit the virus.

West Nile virus can also be a serious public health issue. The mosquito that carries the virus is established in Ohio, and cases occur each year with potential seasonal flare-ups under certain weather conditions. The mosquitoes that transmit the Zika virus primarily bite during the day, while those that transmit the West Nile virus primarily bite at dusk and dawn.

As health care providers, pharmacists should be aware of the risks associated with mosquito-related diseases and such risks should be communicated to your patients. While patients might think that mosquito bites are simply an annoyance, the Board urges you to remind your patients who are around active mosquitoes to wear light-colored clothing, long pants, long-sleeved shirts, shoes, and socks. Use of Environmental Protection Agency-registered mosquito repellent and following the label directions is also recommended.

You can find additional information on how to stay safe from mosquito bites this summer by visiting www.pharmacy.ohio.gov/zika.

Ohio Medical Marijuana Control Program

In early September, House Bill 523 goes into effect, legalizing medical marijuana in Ohio. The Board is responsible for implementing rules on the registration of medical marijuana patients and the licensure of medical marijuana dispensaries. The Board is in the process of developing rules to implement this new law and is committed to keeping the public up to date throughout the process. Those who are interested can sign up to receive email updates from the Board by visiting www.pharmacy.ohio.gov/medical.

Controlled Substance Diet Drug Regulations

The Board continues to get questions about diet drugs. The State of Ohio Medical Board Rule 4731-11-04 governs the use of controlled substances (CS) to assist in weight reduction. This rule still has the requirements of the face-to-face meeting with the physician, the 12-week limit on duration of therapy, and the seven-day gap restrictions.

Medical Board Rule 4731-11-04.1 governs the use of CS for chronic weight management. The key differences in this rule are:

(1) The physician shall meet face to face with the patient for the initial visit and at least every 30 days during the first three months of treatment. Following the initial visit and two follow-up visits, the treatment may be continued under one of the following means:
   (a) The physician may authorize refills for the CS anorexiant up to five times within six months after the initial prescription date;
   (b) The treatment may be provided by a physician assistant in compliance with this rule, the supervisory plan or policies of the health care facility, and the physician assistant formulary adopted by the Medical Board.
(2) There is no 12-week maximum length of therapy for weight loss medications that are Food and Drug Administration-approved for chronic weight management.
(3) There is no seven-day gap limitation on medications for chronic weight management.

Rule 4731-11-03 of the OAC permits the prescribing of CS stimulants for the treatment of moderate to severe binge eating disorder (BED). BED is considered to be a separate, distinct diagnosis.
As always, pharmacists are required to request an OARRS report when required, to use corresponding responsibility regarding the validity of the prescription, and to exercise professional judgment.

**Supplying Stock Medications to Prescribers or Another Pharmacy**

A prescriber wants to purchase product from the pharmacy to be used in his or her office. A pharmacy wants to purchase a bottle of medication from another pharmacy, either within the same chain or to another chain. This is permitted, but how should the pharmacy accomplish this?

For Schedule II CS, the only legal way is for the purchaser (prescriber or other pharmacy) to complete his or her own Drug Enforcement Administration (DEA) Form 222 and give it to the selling pharmacy, much like how a pharmacy completes a DEA Form 222 for its wholesaler (back before the Controlled Substance Ordering System). The selling pharmacy must comply with all rules regarding processing the DEA Form 222.

For all other dangerous drugs, both controlled and non-controlled, the pharmacy may sell product to the prescriber or other pharmacy by using an itemized invoice detailing precisely how much and what medications are being sold. Such transactions must be done in accordance with Rule 4729-9-10 of the OAC.

Under no circumstance should you fill a prescription labeled with “office use” as the patient. Prescriptions and the prescription numbering sequences are for unique, individual patients. Prescription numbers are not to be used as an office accounting system.

**Do not forget the OARRS component of this transaction.** Remember that all sales of CS (and gabapentin after December 1, 2016) from your pharmacy DEA registration to another DEA registrant (either a pharmacy or a prescriber) must be reported as a wholesale transaction in OARRS. This will require the pharmacy to establish an OARRS wholesale account. A “wholesale handbook” is posted on the OARRS website under the Documents tab.

**Reporting Buprenorphine Prescriptions to OARRS**

The following is a frequently asked question (FAQ) regarding reporting buprenorphine prescriptions to OARRS.

Q: When reporting buprenorphine prescriptions to OARRS, which identifier should be reported: the prescriber’s regular DEA number or his or her “X” number?

A: When reporting buprenorphine prescribed for the purpose of treating addiction, report the “X” number. When reporting buprenorphine prescribed for the treatment of pain, report the regular DEA number.

**Compliance FAQs**

Below are two common FAQs about compliance with prescription regulations.

Q: Does the body mass index (BMI) have to be written on a diet drug prescription?

A: No. While BMI is useful clinical information for the pharmacist, it is not required to be written on the prescription per OAC 4729-5-30.

Q: Can I accept an electronic signature for a printed prescription?

A: No. All printed prescriptions must have the manual signature of the prescriber in wet ink.

**Acute Pain Guidelines Training Module**

In its ongoing efforts to combat prescription drug abuse and save lives, the Governor’s Cabinet Opiate Action Team recently released the Ohio Guideline for the Management of Acute Pain Outside of Emergency Departments.

You may have recently received an email from the Opiate Action Team encouraging you to watch a short training module on the new guidelines. **While this training is not mandatory, the module is strongly encouraged.**

For those who did not receive the email link, you may access the training video by visiting [http://ohiorxguidelines.com](http://ohiorxguidelines.com).
Opioid Doses, Prescriptions for Ohio Patients Continue To Decrease
Ohio Automated Rx Reporting System Report Shows Sustained Progress in 2015

February 8, 2016 – Columbus, Ohio – Opioid prescribing in Ohio continued to decline in 2015, according to a newly released report from the State Board of Pharmacy’s Ohio Automated Rx Reporting System (OARRS).

In 2015, the total doses of opioids dispensed to Ohio patients decreased to 701 million from a high of 793 million in 2012, a drop of 11.6 percent. The number of opioid prescriptions provided to Ohio patients decreased by 1.4 million during the same time period. OARRS data also showed a 71 percent decrease in the amount of people engaged in the practice of doctor shopping since 2010.

“This is a positive step forward in Ohio’s efforts to address the overprescribing of opioid pain relievers,” says State of Ohio Board of Pharmacy Executive Director Steven W. Schierholt. “By encouraging the appropriate prescribing of opioids and greater use of OARRS, we can continue to reduce the overall supply available for misuse and addiction.”

To further strengthen efforts to promote safe and responsible opioid prescribing, the Governor’s Cabinet Opiate Action Team (GCOAT) recently released Guidelines for the Management of Acute Pain Outside of Emergency Departments. For more information on the guidelines and the work of the GCOAT, please visit www.opioidprescribing.ohio.gov.

Established in 2006, OARRS is the only statewide database that collects information on all prescriptions for controlled substances that are dispensed by pharmacies and personally furnished by licensed prescribers in Ohio. OARRS data is available to prescribers when they treat patients, pharmacists when presented with prescriptions from patients and law enforcement officers only during active investigations.

In October 2015, Governor Kasich announced an investment of up to $1.5 million a year to make Ohio the first state in the nation to integrate its prescription monitoring program (OARRS) directly into electronic medical records and pharmacy dispensing systems across the state. As a result, prescribers and pharmacists will be able to automatically check a patient’s controlled substance use within the same system they use day-to-day. To date, the Board has received 148 requests for integration, including hospitals, physician offices, pharmacies and major health systems.

The complete 2015 OARRS report can be accessed by visiting: www.pharmacy.ohio.gov/OARRS2015

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For Immediate Release
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Number of Ohio Pharmacies Dispensing Overdose Reversal Drug Reaches 1,000
Ohio Pharmacies Step Up the Fight Against Opioid Overdose

August 29, 2016 – Columbus, Ohio – The State of Ohio Board of Pharmacy today announced that 1,000 Ohio pharmacies in 79 counties now offer naloxone without a prescription. Naloxone (Narcan®) is a safe medication that can reverse an overdose that is caused by prescription opioids, heroin and fentanyl. When administered during an overdose, naloxone blocks the effects of opioids on the brain and can restore breathing in a matter of minutes.

“Increasing the availability of naloxone is essential in preventing fatal drug overdoses impacting our state,” said State of Ohio Board of Pharmacy Executive Director Steven W. Schierholt. “I am proud that Ohio pharmacies have stepped up to offer this medication in their communities.”

To expand access to naloxone, Governor Kasich signed House Bill 4, sponsored by State Representatives Robert Sprague and Jeff Rezabek. This legislation allows pharmacists to dispense naloxone without a prescription to an at-risk opioid user or a friend, family member or other individual who can intervene in the event of an overdose.

“Pharmacists are playing a key role in the fight against opioid addiction. The signing of House Bill 4, along with other legislation, has provided Ohioans with increased access to naloxone. Expanding this life-saving medication’s availability has resulted in thousands of lives being saved,” said Rep. Sprague. “Most recently, the Governor signed the 9-1-1 Good Samaritan law. This law provides immunity for minor drug possession, when individuals seek emergency assistance for a drug overdose, and it helps link individuals with the treatment system. These policies help keep people alive, and when tied with other initiatives, they are a key part of the overall solution to the addiction epidemic.”

“We know for a fact that the drug is working to reverse overdoses and save lives. It was a privilege of mine to work with Representative Sprague on legislation to increase access to naloxone without a prescription in order to continue to battle the drug epidemic here in our state,” said Rep. Rezabek.

For a complete list of all pharmacies offering naloxone without a prescription, please visit: www.pharmacy.ohio.gov/stopoverdose.
For more OARRS data and information you can visit these links:

www.pharmacy.ohio.gov


2013-2014 Biennial Report


2015 Semiannual Report


2015 Annual Report

Prescribing Guidelines
Disclosure of Relationship

The Core Expert Group (CEG) members disclose that they have no financial conflicts of interest. Experts disclose the following activities related to the content of this guideline:

- Pam Archer discloses authorship of the Ohio Guidelines for Prescribing Opioids for the Treatment of Chronic, Non-Terminal Pain; Robin Ballantyne discloses that she has served as a paid consultant to Cohen Milstein Sellers & Toll, PLLC, and has special advisory committee responsibilities on the Food and Drug Administration (FDA) Risk Evaluation and Mitigation Strategies committee; Phillip Coffin discloses that in 2012 he provided expert testimony to the California State Assembly regarding a bill to expand naloxone access and reports that he is the principal investigator on a research study of methamphetamine dependence that receives donated injectable naltrexone from Alkermes, Inc.;
- Gary Franklin discloses authorship of the AMDG Interagency Guideline on Prescribing Opioids for Pain; Erin Krebs discloses that she represented the American College of Physicians at a 2014 Food and Drug Administration meeting on Abuse Deterrent Opioid Formulations; Lewis Nelson discloses his ad-hoc membership on the FDA Drug Safety and Risk Management Advisory Committee; Robert “Chuck” Rich discloses authorship of the Arizona Opioid Prescribing Guidelines;
- Trupti Patel discloses authorship of the Arizona Opioid Prescribing Guidelines; Robert “Chuck” Rich discloses that he was an author of the 2013 American Academy of Family Physicians position paper on opioids and pain management; Joanna Starrels discloses that she received honoraria from the Betty Ford Institute; Thomas Tape discloses that he was an author of the 2013 American College of Physicians policy position paper on prescription drug abuse. CDC, provided 100% of the funding for the supplemental evidence review tasks and meeting support. No foundation or industry support was accepted.

The Opioid Guideline Workgroup (OGW) members disclose that they have no financial conflicts of interest. Experts disclose the following activities related to the content of this guideline:

- Anne Burns discloses that she participated in a congressional briefing sponsored by Reps. Carter and DeSaulnier on the pharmacist’s role in furnishing Naloxone and that she participates on the National Advisory Board for the Prescription Drug Abuse and Heroin Summit. Chinazo Cunningham discloses that her husband is employed by Quest Diagnostics and Dr. Cunningham was recused from any discussion related to urine drug testing. Traci Green discloses that she was previously employed by Inflexion, a small business that conducts Small Business Innovation Research on behavioral interventions for behavioral health and chronic pain and created several psychometric tools for conducting risk assessment for prescription opioid abuse potential. Dr. Green also discloses that while at the hospital where she is employed, she provided consultation to Purdue Pharma Ltd to design overdose prevention brochures for persons who use diverted prescription opioids non-medically with an emphasis on persons who inject prescription drugs, and not for patients using opioid therapy for pain. Dr. Green was recused from any discussion related to risk assessment tools and patient education materials. Erin Krebs discloses that she served on the CDC Opioid Prescribing Guideline CEG. Christina Porucznik discloses that she served on the CDC Opioid Prescribing Guideline CEG. Greg Terman discloses that he serves as the President of the American Pain Society. Mark Wallace discloses that he was previously employed by Inflexion, a small business that conducts Small Business Innovation Research on behavioral interventions for behavioral health and chronic pain and created several psychometric tools for conducting risk assessment for prescription opioid abuse potential. Dr. Green also discloses that while at the hospital where she is employed, she provided consultation to Purdue Pharma Ltd to design overdose prevention brochures for persons who use diverted prescription opioids non-medically with an emphasis on persons who inject prescription drugs, and not for patients using opioid therapy for pain. Dr. Green was recused from any discussion related to risk assessment tools and patient education materials. Christina Porucznik discloses that she served on the CDC Opioid Prescribing Guideline CEG.

The NCIPC Board of Scientific Counselors (BSC) members disclose that they have no financial conflicts of interest. Two BSC members, Traci Green and Christina Porucznik, served on the Opioid Guideline Workgroup. Traci Green discloses that she was previously employed by Inflexion, a small business that conducts Small Business Innovation Research on behavioral interventions for behavioral health and chronic pain and created several psychometric tools for conducting risk assessment for prescription opioid abuse potential. Dr. Green also discloses that while at the hospital where she is employed, she provided consultation to Purdue Pharma Ltd to design overdose prevention brochures for persons who use diverted prescription opioids non-medically with an emphasis on persons who inject prescription drugs, and not for patients using opioid therapy for pain. Dr. Green was recused from any discussion related to abuse-deterrent drugs.

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CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016

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Summary

This guideline provides recommendations for primary care clinicians who are prescribing opioids for chronic pain outside of active cancer treatment, palliative care, and end-of-life care. The guideline addresses 1) when to initiate or continue opioids for chronic pain; 2) opioid selection, dosage, duration, follow-up, and discontinuation; and 3) assessing risk and addressing harms of opioid use. CDC developed the guideline using the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) framework, and recommendations are made on the basis of a systematic review of the scientific evidence while considering benefits and harms, values and preferences, and resource allocation. CDC obtained input from experts, stakeholders, the public, peer reviewers, and a federally chartered advisory committee. It is important that patients receive appropriate pain treatment with careful consideration of the benefits and risks of treatment options. This guideline is intended to improve communication between clinicians and patients about the risks and benefits of opioid therapy for chronic pain, improve the safety and effectiveness of pain treatment, and reduce the risks associated with long-term opioid therapy, including opioid use disorder, overdose, and death. CDC has provided a checklist for prescribing opioids for chronic pain (http://stacks.cdc.gov/view/cdc/38025) as well as a website (http://www.cdc.gov/drugoverdose/prescribingresources.html) with additional tools to guide clinicians in implementing the recommendations.

Introduction

Background

Opioids are commonly prescribed for pain. An estimated 20% of patients presenting to physician offices with noncancer pain symptoms or pain-related diagnoses (including acute and chronic pain) receive an opioid prescription (1). In 2012, health care providers wrote 259 million prescriptions for opioid pain medication, enough for every adult in the United States to have a bottle of pills (2). Opioid prescriptions per capita increased 7.3% from 2007 to 2012, with opioid prescribing rates increasing more for family practice, general practice, and internal medicine compared with other specialties (3). Rates of opioid prescribing vary greatly across states in ways that cannot be explained by the underlying health status of the population, highlighting the lack of consensus among clinicians on how to use opioid pain medication (2).

Prevention, assessment, and treatment of chronic pain are challenges for health providers and systems. Pain might go unrecognized, and patients, particularly members of racial and ethnic minority groups, women, the elderly, persons with cognitive impairment, and those with cancer and at the end of life, can be at risk for inadequate pain treatment (4). Patients can experience persistent pain that is not well controlled. There are clinical, psychological, and social consequences associated with chronic pain including limitations in complex activities, lost work productivity, reduced quality of life, and stigma, emphasizing the importance of appropriate and compassionate patient care (4). Patients should receive appropriate pain treatment based on a careful consideration of the benefits and risks of treatment options.

Chronic pain has been variably defined but is defined within this guideline as pain that typically lasts >3 months or past the time of normal tissue healing (5). Chronic pain can be the result of an underlying medical disease or condition, injury, medical treatment, inflammation, or an unknown cause (4). Estimates of the prevalence of chronic pain vary, but it is clear that the number of persons experiencing chronic pain in the United States is substantial. The 1999–2002 National Health and Nutrition Examination Survey estimated that 14.6% of adults have current widespread or localized pain lasting at least 3 months (6). Based on a survey conducted during 2001–2003 (7), the overall prevalence of common, predominantly musculoskeletal pain conditions (e.g., arthritis, rheumatism, chronic back or neck problems, and frequent severe headaches) was estimated at 43% among adults in the
United States, although minimum duration of symptoms was not specified. Most recently, analysis of data from the 2012 National Health Interview Study showed that 11.2% of adults report having daily pain (8). Clinicians should consider the full range of therapeutic options for the treatment of chronic pain. However, it is hard to estimate the number of persons who could potentially benefit from opioid pain medication long term. Evidence supports short-term efficacy of opioids for reducing pain and improving function in noncancer nociceptive and neuropathic pain in randomized clinical trials lasting primarily ≤12 weeks (9,10), and patients receiving opioid therapy for chronic pain report some pain relief when surveyed (11–13). However, few studies have been conducted to rigorously assess the long-term benefits of opioids for chronic pain (pain lasting >3 months) with outcomes examined at least 1 year later (14). On the basis of data available from health systems, researchers estimate that 9.6–11.5 million adults, or approximately 3%–4% of the adult U.S. population, were prescribed long-term opioid therapy in 2005 (15).

Opioid pain medication use presents serious risks, including overdose and opioid use disorder. From 1999 to 2014, more than 165,000 persons died from overdose related to opioid pain medication in the United States (16). In the past decade, while the death rates for the top leading causes of death such as heart disease and cancer have decreased substantially, the death rate associated with opioid pain medication has increased markedly (17). Sales of opioid pain medication have increased in parallel with opioid-related overdose deaths (18). The Drug Abuse Warning Network estimated that >420,000 emergency department visits were related to the misuse or abuse of narcotic pain relievers in 2011, the most recent year for which data are available (19). Although clinical criteria have varied over time, opioid use disorder is a problematic pattern of opioid use leading to clinically significant impairment or distress. This disorder is manifested by specific criteria such as unsuccessful efforts to cut down or control use and use resulting in social problems and a failure to fulfill major role obligations at work, school, or home (20). This diagnosis has also been referred to as “abuse or dependence” and “addiction” in the literature, and is different from tolerance (diminished response to a drug with repeated use) and physical dependence (adaptation to a drug that produces symptoms of withdrawal when the drug is stopped), both of which can exist without a diagnosed disorder. In 2013, on the basis of DSM-IV diagnosis criteria, an estimated 1.9 million persons abused or were dependent on prescription opioid pain medication (21). Having a history of a prescription for an opioid pain medication increases the risk for overdose and opioid use disorder (22–24), highlighting the value of guidance on safer prescribing practices for clinicians. For example, a recent study of patients aged 15–64 years receiving opioids for chronic noncancer pain and followed for up to 13 years revealed that one in 550 patients died from opioid-related overdose at a median of 2.6 years from their first opioid prescription, and one in 32 patients who escalated to opioid dosages >200 morphine milligram equivalents (MME) died from opioid-related overdose (25).

This guideline provides recommendations for the prescribing of opioid pain medication by primary care clinicians for chronic pain (i.e., pain conditions that typically last >3 months or past the time of normal tissue healing) in outpatient settings outside of active cancer treatment, palliative care, and end-of-life care. Although the guideline does not focus broadly on pain management, appropriate use of long-term opioid therapy must be considered within the context of all pain management strategies (including nonopioid pain medications and nonpharmacologic treatments). CDC’s recommendations are made on the basis of a systematic review of the best available evidence, along with input from experts, and further review and deliberation by a federally chartered advisory committee. The guideline is intended to ensure that clinicians and patients consider safer and more effective treatment, improve patient outcomes such as reduced pain and improved function, and reduce the number of persons who develop opioid use disorder, overdose, or experience other adverse events related to these drugs. Clinical decision making should be based on a relationship between the clinician and patient, and an understanding of the patient’s clinical situation, functioning, and life context. The recommendations in the guideline are voluntary, rather than prescriptive standards. They are based on emerging evidence, including observational studies or randomized clinical trials with notable limitations. Clinicians should consider the circumstances and unique needs of each patient when providing care.

Rationale

Primary care clinicians report having concerns about opioid pain medication misuse, find managing patients with chronic pain stressful, express concern about patient addiction, and report insufficient training in prescribing opioids (26). Across specialties, physicians believe that opioid pain medication can be effective in controlling pain, that addiction is a common consequence of prolonged use, and that long-term opioid therapy often is overprescribed for patients with chronic noncancer pain (27). These attitudes and beliefs, combined with increasing trends in opioid-related overdose, underscore the need for better clinician guidance on opioid prescribing. Clinical practice guidelines focused on prescribing can improve clinician knowledge, change prescribing practices (28), and ultimately benefit patient health.
Professional organizations, states, and federal agencies (e.g., the American Pain Society/American Academy of Pain Medicine, 2009; the Washington Agency Medical Directors Group, 2015; and the U.S. Department of Veterans Affairs/Department of Defense, 2010) have developed guidelines for opioid prescribing (29–31). Existing guidelines share some common elements, including dosing thresholds, cautious titration, and risk mitigation strategies such as using risk assessment tools, treatment agreements, and urine drug testing. However, there is considerable variability in the specific recommendations (e.g., range of dosing thresholds of 90 MME/day to 200 MME/day), audience (e.g., primary care clinicians versus specialists), use of evidence (e.g., systematic review, grading of evidence and recommendations, and role of expert opinion), and rigor of methods for addressing conflict of interest (32). Most guidelines, especially those that are not based on evidence from scientific studies published in 2010 or later, also do not reflect the most recent scientific evidence about risks related to opioid dosage.

This CDC guideline offers clarity on recommendations based on the most recent scientific evidence, informed by expert opinion and stakeholder and public input. Scientific research has identified high-risk prescribing practices that have contributed to the overdose epidemic (e.g., high-dose prescribing, overlapping opioid and benzodiazepine prescriptions, and extended-release/long-acting [ER/LA] opioids for acute pain) (24,33,34). Using guidelines to address problematic prescribing has the potential to optimize care and improve patient safety based on evidence-based practice (28), as well as reverse the cycle of opioid pain medication misuse that contributes to the opioid overdose epidemic.

**Scope and Audience**

This guideline is intended for primary care clinicians (e.g., family physicians and internists) who are treating patients with chronic pain (i.e., pain lasting >3 months or past the time of normal tissue healing) in outpatient settings. Prescriptions by primary care clinicians account for nearly half of all dispensed opioid prescriptions, and the growth in prescribing rates among these clinicians has been above average (3). Primary care clinicians include physicians as well as nurse practitioners and physician assistants. Although the focus is on primary care clinicians, because clinicians work within team-based care, the recommendations refer to and promote integrated pain management and collaborative working relationships with other providers (e.g., behavioral health providers, pharmacists, and pain management specialists). Although the transition from use of opioid therapy for acute pain to use for chronic pain is hard to predict and identify, the guideline is intended to inform clinicians who are considering prescribing opioid pain medication for painful conditions that can or have become chronic.

This guideline is intended to apply to patients aged ≥18 years with chronic pain outside of palliative and end-of-life care. For this guideline, palliative care is defined in a manner consistent with that of the Institute of Medicine as care that provides relief from pain and other symptoms, supports quality of life, and is focused on patients with serious advanced illness. Palliative care can begin early in the course of treatment for any serious illness that requires excellent management of pain or other distressing symptoms (35). End-of-life care is defined as care for persons with a terminal illness or at high risk for dying in the near future in hospice care, hospitals, long-term care settings, or at home. Patients within the scope of this guideline include cancer survivors with chronic pain who have completed cancer treatment, are in clinical remission, and are under cancer surveillance only. The guideline is not intended for patients undergoing active cancer treatment, palliative care, or end-of-life care because of the unique therapeutic goals, ethical considerations, opportunities for medical supervision, and balance of risks and benefits with opioid therapy in such care.

The recommendations address the use of opioid pain medication in certain special populations (e.g., older adults and pregnant women) and in populations with conditions posing special risks (e.g., a history of substance use disorder). The recommendations do not address the use of opioid pain medication in children or adolescents aged <18 years. The available evidence concerning the benefits and harms of long-term opioid therapy in children and adolescents is limited, and few opioid medications provide information on the label regarding safety and effectiveness in pediatric patients. However, observational research shows significant increases in opioid prescriptions for pediatric populations from 2001 to 2010 (36), and a large proportion of adolescents are commonly prescribed opioid pain medications for conditions such as headache and sports injuries (e.g., in one study, 50% of adolescents presenting with headache received a prescription for an opioid pain medication [37,38]). Adolescents who misuse opioid pain medication often misuse medications from their own previous prescriptions (39), with an estimated 20% of adolescents with currently prescribed opioid medications reporting using them intentionally to get high or increase the effects of alcohol or other drugs (40). Use of prescribed opioid pain medication before high school graduation is associated with a 33% increase in the risk of later opioid misuse (41). Misuse of opioid pain medications in adolescence strongly predicts later onset of heroin use (42). Thus, risk of opioid medication use in pediatric populations is of great concern. Additional clinical trial and observational research is needed,
Recommendations are intended to provide guidance on use of opioids as part of medication-assisted treatment for opioid use disorder. Some of the recommendations might be relevant for acute care settings or other specialists, such as emergency physicians or dentists, but use in these settings or by other specialists is not the focus of this guideline. Readers are referred to other sources for prescribing recommendations within acute care settings and in dental practice, such as the American College of Emergency Physicians’ guideline for prescribing of opioids in the emergency department (43); the American Society of Anesthesiologists’ guideline for acute pain management in the perioperative setting (44); the Washington Agency Medical Directors’ Group Interagency Guideline on Prescribing Opioids for Pain, Part II: Prescribing Opioids in the Acute and Subacute Phase (30); and the Pennsylvania Guidelines on the Use of Opioids in Dental Practice (45). In addition, given the challenges of managing the painful complications of sickle cell disease, readers are referred to the NIH National Heart, Lung, and Blood Institute’s Evidence Based Management of Sickle Cell Disease Expert Panel Report for management of sickle cell disease (46).

Guideline Development Methods

Guideline Development Using the Grading of Recommendations Assessment, Development, and Evaluation Method

CDC developed this guideline using the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) method (http://www.gradeworkinggroup.org). This method specifies the systematic review of scientific evidence and offers a transparent approach to grading quality of evidence and strength of recommendations. The method has been adapted by the CDC Advisory Committee on Immunization Practices (ACIP) (47). CDC has applied the ACIP translation of the GRADE framework in this guideline. Within the ACIP GRADE framework, the body of evidence is categorized in a hierarchy. This hierarchy reflects degree of confidence in the effect of a clinical action on health outcomes. The categories include type 1 evidence (randomized clinical trials or overwhelming evidence from observational studies), type 2 evidence (randomized clinical trials with important limitations, or exceptionally strong evidence from observational studies), type 3 evidence (observational studies or randomized clinical trials with notable limitations), and type 4 evidence (clinical experience and observations, observational studies with important limitations, or randomized clinical trials with several major limitations). Type of evidence is categorized by study design as well as limitations in study design or implementation, imprecision of estimates, variability in findings, indirectness of evidence, publication bias, magnitude of treatment effects, dose-response gradient, and a constellation of plausible biases that could change observations of effects. Type 1 evidence indicates that one can be very confident that the true effect lies close to that of the estimate of the effect; type 2 evidence means that the true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different; type 3 evidence means that confidence in the effect estimate is limited and the true effect might be substantially different from the estimate of the effect; and type 4 evidence indicates that one has very little confidence in the effect estimate, and the true effect is likely to be substantially different from the estimate of the effect (47,48). When no studies are present, evidence is considered to be insufficient. The ACIP GRADE framework places recommendations in two categories, Category A and Category B. Four major factors determine the category of the recommendation: the quality of evidence, the balance between desirable and undesirable effects, values and preferences, and resource allocation (cost). Category A recommendations apply to all persons in a specified group and indicate that most patients should receive the recommended course of action. Category B recommendations indicate that there should be individual decision making; different choices will be appropriate for different patients, so clinicians must help patients arrive at a decision consistent with patient values and preferences, and specific clinical situations (47). According to the GRADE methodology, a particular quality of evidence does not necessarily imply a particular strength of recommendation (48–50). Category A recommendations can be made based on type 3 or type 4 evidence when the advantages of a clinical action greatly outweigh the disadvantages based on a consideration of benefits and harms, values and preferences, and costs. Category B recommendations are made when the advantages and disadvantages of a clinical action are more balanced. GRADE methodology is discussed extensively elsewhere (47,51). The U.S. Preventive Services Task Force (USPSTF) follows different methods for developing and categorizing recommendations (http://www.uspreventiveservicestaskforce.org). USPSTF recommendations focus on preventive services and are categorized as A, B, C, D, and I. Under the Affordable Care Act, all “nongrandfathered” health plans (that is, those health plans not in existence prior to March 23, 2010 or those with significant changes to their coverage) and expanded Medicaid plans are required to cover...
preventive services recommended by USPSTF with a category A or B rating with no cost sharing. The coverage requirements went into effect September 23, 2010. Similar requirements are in place for vaccinations recommended by ACIP, but do not exist for other recommendations made by CDC, including recommendations within this guideline.

A previously published systematic review sponsored by the Agency for Healthcare Research and Quality (AHRQ) on the effectiveness and risks of long-term opioid treatment of chronic pain (14,52) initially served to directly inform the recommendation statements. This systematic clinical evidence review addressed the effectiveness of long-term opioid therapy for outcomes related to pain, function, and quality of life; the comparative effectiveness of different methods for initiating and titrating opioids; the harms and adverse events associated with opioids; and the accuracy of risk-prediction instruments and effectiveness of risk mitigation strategies on outcomes related to overdose, addiction, abuse, or misuse. For the current guideline development, CDC conducted additional literature searches to update the evidence review to include more recently available publications and to answer an additional clinical question about the effect of opioid therapy for acute pain on long-term use. More details about the literature search strategies and GRADE methods applied are provided in the Clinical Evidence Review (http://stacks.cdc.gov/view/cdc/38026). CDC developed GRADE evidence tables to illustrate the quality of the evidence for each clinical question.

As identified in the AHRQ-sponsored clinical evidence review, the overall evidence base for the effectiveness and risks of long-term opioid therapy is low in quality per the GRADE criteria. Thus, contextual evidence is needed to provide information about the benefits and harms of nonpharmacologic and nonopioid pharmacologic therapy and the epidemiology of opioid pain medication overdose and inform the recommendations. Further, as elucidated by the GRADE Working Group, supplemental information on clinician and patient values and preferences and resource allocation can inform judgments of benefits and harms and be helpful for translating the evidence into recommendations. CDC conducted a contextual evidence review to supplement the clinical evidence review based on systematic searches of the literature. The review focused on the following four areas: effectiveness of nonpharmacologic and nonopioid pharmacologic treatments; benefits and harms related to opioid therapy (including additional studies not included in the clinical evidence review such as studies that evaluated outcomes at any duration or used observational study designs related to specific opioid pain medications, high-dose opioid therapy, co-prescription of opioids with other controlled substances, duration of opioid use, special populations, risk stratification/mitigation approaches, and effectiveness of treatments for addressing potential harms of opioid therapy); clinician and patient values and preferences; and resource allocation. CDC constructed narrative summaries of this contextual evidence and used the information to support the clinical recommendations. More details on methods for the contextual evidence review are provided in the Contextual Evidence Review (http://stacks.cdc.gov/view/cdc/38027).

On the basis of a review of the clinical and contextual evidence (review methods are described in more detail in subsequent sections of this report), CDC drafted recommendation statements focused on determining when to initiate or continue opioids for chronic pain; opioid selection, dosage, duration, follow-up, and discontinuation; and assessing risk and addressing harms of opioid use. To help assure the draft guideline’s integrity and credibility, CDC then began a multistep review process to obtain input from experts, stakeholders, and the public to help refine the recommendations.

Solicitation of Expert Opinion

CDC sought the input of experts to assist in reviewing the evidence and providing perspective on how CDC used the evidence to develop the draft recommendations. These experts, referred to as the “Core Expert Group” (CEG) included subject matter experts, representatives of primary care professional societies and state agencies, and an expert in guideline development methodology.* CDC identified subject matter experts with high scientific standing; appropriate academic and clinical training and relevant clinical experience; and proven scientific excellence in opioid prescribing, substance use disorder treatment, and pain management. CDC identified representatives from leading primary care professional organizations to represent the audience for this guideline. Finally, CDC identified state agency officials and representatives based on their experience with state guidelines for opioid prescribing that were developed with multiple agency stakeholders and informed by scientific literature and existing evidence-based guidelines.

Prior to their participation, CDC asked potential experts to reveal possible conflicts of interest such as financial relationships with industry, intellectual preconceptions, or previously stated public positions. Experts could not serve if they had conflicts that might have a direct and predictable effect on the recommendations. CDC excluded experts who had a financial or promotional relationship with a company

* A list of the members appears at the end of this report. The recommendations and all statements included in this guideline are those of CDC and do not necessarily represent the official position of any persons or organizations providing comments on the draft guideline.
that makes a product that might be affected by the guideline. CDC reviewed potential nonfinancial conflicts carefully (e.g., intellectual property, travel, public statements or positions such as congressional testimony) to determine if the activities would have a direct and predictable effect on the recommendations. CDC determined the risk of these types of activities to be minimal for the identified experts. All experts completed a statement certifying that there was no potential or actual conflict of interest. Activities that did not pose a conflict (e.g., participation in Food and Drug Administration [FDA] activities or other guideline efforts) are disclosed.

CDC provided to each expert written summaries of the scientific evidence (both the clinical and contextual evidence reviews conducted for this guideline) and CDC’s draft recommendation statements. Experts provided individual ratings for each draft recommendation statement based on the balance of benefits and harms, evidence strength, certainty of values and preferences, cost, recommendation strength, rationale, importance, clarity, and ease of implementation. CDC hosted an in-person meeting of the experts that was held on June 23–24, 2015, in Atlanta, Georgia, to seek their views on the evidence and draft recommendations and to better understand their premeeting ratings. CDC sought the experts’ individual opinions at the meeting. Although there was widespread agreement on some of the recommendations, there was disagreement on others. Experts did not vote on the recommendations or seek to come to a consensus. Decisions about recommendations to be included in the guideline, and their rationale, were made by CDC. After revising the guideline, CDC sent written copies of it to each of the experts for review and asked for any additional comments; CDC reviewed these written comments and considered them when making further revisions to the draft guideline. The experts have not reviewed the final version of the guideline.

**Federal Partner Engagement**

Given the scope of this guideline and the interest of agencies across the federal government in appropriate pain management, opioid prescribing, and related outcomes, CDC invited its National Institute of Occupational Safety and Health and CDC’s federal partners to observe the expert meeting, provide written comments on the full draft guideline after the meeting, and review the guideline through an agency clearance process; CDC reviewed comments and incorporated changes. Interagency collaboration will be critical for translating these recommendations into clinical practice. Federal partners included representatives from the Substance Abuse and Mental Health Services Administration, the National Institute on Drug Abuse, FDA, the U.S. Department of Veterans Affairs, the U.S. Department of Defense, the Office of the National Coordinator for Health Information Technology, the Centers for Medicare and Medicaid Services, the Health Resources and Services Administration, AHRQ, and the Office of National Drug Control Policy.

**Stakeholder Comment**

Given the importance of the guideline for a wide variety of stakeholders, CDC also invited review from a Stakeholder Review Group (SRG) to provide comment so that CDC could consider modifications that would improve the recommendations’ specificity, applicability, and ease of implementation. The SRG included representatives from professional organizations that represent specialties that commonly prescribe opioids (e.g., pain medicine, physical medicine and rehabilitation), delivery systems within which opioid prescribing occurs (e.g., hospitals), and representation from community organizations with interests in pain management and opioid prescribing.* Representatives from each of the SRG organizations were provided a copy of the guideline for comment. Each of these representatives provided written comments. Once input was received from the full SRG, CDC reviewed all comments and carefully considered them when revising the draft guideline.

**Constituent Engagement**

To obtain initial perspectives from constituents on the recommendation statements, including clinicians and prospective patients, CDC convened a constituent engagement webinar and circulated information about the webinar in advance through announcements to partners. CDC hosted the webinar on September 16 and 17, 2015, provided information about the methodology for developing the guideline, and presented the key recommendations. A fact sheet was posted on the CDC Injury Center website (http://www.cdc.gov/injury) summarizing the guideline development process and clinical practice areas addressed in the guideline; instructions were included on how to submit comments via email. CDC received comments during and for 2 days following the first webinar. Over 1,200 constituent comments were received. Comments were reviewed and carefully considered when revising the draft guideline.

**Peer Review**

Per the final information quality bulletin for peer review (https://www.whitehouse.gov/sites/default/files/omb/memoranda/fy2005/m05-03.pdf), peer review requirements applied to this guideline because it provides influential
scientific information that could have a clear and substantial impact on public- and private-sector decisions. Three experts independently reviewed the guideline to determine the reasonableness and strength of recommendations; the clarity with which scientific uncertainties were clearly identified; and the rationale, importance, clarity, and ease of implementation of the recommendations.* CDC selected peer reviewers based on expertise, diversity of scientific viewpoints, and independence from the guideline development process. CDC assessed and managed potential conflicts of interest using a process similar to the one described for solicitation of expert opinion. No financial interests were identified in the disclosure and review process, and nonfinancial activities were determined to be of minimal risk; thus, no significant conflict of interest concerns were identified. CDC placed the names of peer reviewers on the CDC and the National Center for Injury Prevention and Control Peer Review Agenda websites that are used to provide information about the peer review of influential documents. CDC reviewed peer review comments and revised the draft guideline accordingly.

Public Comment

To obtain comments from the public on the full guideline, CDC published a notice in the Federal Register (80 FR 77351) announcing the availability of the guideline and the supporting clinical and contextual evidence reviews for public comment. The comment period closed January 13, 2016. CDC received more than 4,350 comments from the general public, including patients with chronic pain, clinicians, families who have lost loved ones to overdose, medical associations, professional organizations, academic institutions, state and local governments, and industry. CDC reviewed each of the comments and carefully considered them when revising the draft guideline.

Federal Advisory Committee Review and Recommendation

The National Center for Injury Prevention and Control (NCIPC) Board of Scientific Counselors (BSC) is a federal advisory committee that advises and makes recommendations to the Secretary of the Department of Health and Human Services, the Director of CDC, and the Director of NCIPC.* The BSC makes recommendations regarding policies, strategies, objectives, and priorities, and reviews progress toward injury and violence prevention. CDC sought the BSC's advice on the draft guideline. BSC members are special government employees appointed as CDC advisory committee members; as such, all members completed an OGE Form 450 to disclose relevant interests. BSC members also reported on their disclosures during meetings. Disclosures for the BSC are reported in the guideline.

To assist in guideline review, on December 14, 2015, via Federal Register notice, CDC announced the intent to form an Opioid Guideline Workgroup (OGW) to provide observations on the draft guideline to the BSC. CDC provided the BSC with the draft guideline as well as summaries of comments provided to CDC by stakeholders, constituents, and peer reviewers, and edits made to the draft guideline in response. During an open meeting held on January 7, 2016, the BSC recommended the formation of the OGW. The OGW included a balance of perspectives from audiences directly affected by the guideline; audiences that would be directly involved with implementing the recommendations, and audiences qualified to provide representation. The OGW comprised clinicians, subject matter experts, and a patient representative, with the following perspectives represented: primary care, pain medicine, public health, behavioral health, substance abuse treatment, pharmacy, patients, and research.* Additional sought-after attributes were appropriate academic and clinical training and relevant clinical experience; high scientific standing; and knowledge of the patient, clinician, and caregiver perspectives. In accordance with CDC policy, two BSC committee members also served as OGW members, with one serving as the OGW Chair. The professional credentials and interests of OGW members were carefully reviewed to identify possible conflicts of interest such as financial relationships with industry, intellectual preconceptions, or previously stated public positions. Only OGW members whose interests were determined to be minimal were selected. When an activity was perceived as having the potential to affect a specific aspect of the recommendations, the activity was disclosed, and the OGW member was recused from discussions related to that specific aspect of the recommendations (e.g., urine drug testing and abuse-deterrent formulations). Disclosures for the OGW are reported. CDC and the OGW identified ad-hoc consultants to supplement the workgroup expertise, when needed, in the areas of pediatrics, occupational medicine, obstetrics and gynecology, medical ethics, addiction psychiatry, physical medicine and rehabilitation, guideline development methodology, and the perspective of a family member who lost a loved one to opioid use disorder or overdose.

The BSC charged the OGW with reviewing the quality of the clinical and contextual evidence reviews and reviewing each of the recommendation statements and accompanying rationales. For each recommendation statement, the OGW considered the quality of the evidence, the balance of benefits and risks, the values and preferences of clinicians and patients, the cost feasibility, and the category designation.
Recommendations and Reports

NCIPC announced an open meeting of the NCIPC BSC in the Federal Register on January 11, 2015. The BSC met on January 28, 2016, to discuss the OGW report and deliberate on the draft guideline itself. Members of the public provided comments at this meeting. After discussing the OGW report, deliberating on specific issues about the draft guideline identified at the meeting, and hearing public comment, the BSC voted unanimously: to support the observations made by the OGW; that CDC adopt the guideline recommendations that, according to the workgroup’s report, had unanimous or majority support; and that CDC further consider the guideline recommendations for which the group had mixed opinions. CDC carefully considered the OGW observations, public comments, and BSC recommendations, and revised the guideline in response.

Summary of the Clinical Evidence Review

Primary Clinical Questions

CDC conducted a clinical systematic review of the scientific evidence to identify the effectiveness, benefits, and harms of long-term opioid therapy for chronic pain, consistent with the GRADE approach (47,48). Long-term opioid therapy is defined as use of opioids on most days for >3 months. A previously published AHRQ-funded systematic review on the effectiveness and risks of long-term opioid therapy for chronic pain comprehensively addressed four clinical questions (14,52). CDC, with the assistance of a methodology expert, searched the literature to identify newly published studies on these four original questions. Because long-term opioid use might be affected by use of opioids for acute pain, CDC subsequently developed a fifth clinical question (last in the series below), and in collaboration with a methodology conducted a systematic review of the scientific evidence to address it. In brief, five clinical questions were addressed:

• The effectiveness of long-term opioid therapy versus placebo, no opioid therapy, or nonopioid therapy for long term (≥1 year) outcomes related to pain, function, and quality of life, and how effectiveness varies according to the type/cause of pain, patient demographics, and patient comorbidities (Key Question [KQ] 1).
• The risks of opioids versus placebo or no opioids on abuse, addiction, overdose, and other harms, and how harms vary according to the type/cause of pain, patient demographics, patient comorbidities, and dose (KQ2).
• The comparative effectiveness of opioid dosing strategies (different methods for initiating and titrating opioids; immediate-release versus ER/LA opioids; different ER/LA opioids; immediate-release plus ER/LA opioids versus ER/LA opioids alone; scheduled, continuous versus as-needed dosing; dose escalation versus dose maintenance; opioid rotation versus maintenance; different strategies for treating acute exacerbations of chronic pain; decreasing opioid doses or tapering off versus continuation; and different tapering protocols and strategies) (KQ3).
• The accuracy of instruments for predicting risk for opioid overdose, addiction, abuse, or misuse; the effectiveness of risk mitigation strategies (use of risk prediction instruments); effectiveness of risk mitigation strategies including opioid management plans, patient education, urine drug testing, prescription drug monitoring program (PDMP) data, monitoring instruments, monitoring intervals, pill counts, and abuse-deterrent formulations for reducing risk for opioid overdose, addiction, abuse, or misuse; and the comparative effectiveness of treatment strategies for managing patients with addiction (KQ4).
• The effects of prescribing opioid therapy versus not prescribing opioid therapy for acute pain on long-term use (KQ5).

The review was focused on the effectiveness of long-term opioid therapy on long-term (>1 year) outcomes related to pain, function, and quality of life to ensure that findings are relevant to patients with chronic pain and long-term opioid prescribing. The effectiveness of short-term opioid therapy has already been established (10). However, opioids have unique effects such as tolerance and physical dependence that might influence assessments of benefit over time. These effects raise questions about whether findings on short-term effectiveness of opioid therapy can be extrapolated to estimate benefits of long-term therapy for chronic pain. Thus, it is important to consider studies that provide data on long-term benefit. For certain opioid-related harms (overdose, fractures, falls, motor vehicle crashes), observational studies were included with outcomes measured at shorter intervals because such outcomes can occur early during opioid therapy, and such harms are not captured well in short-term clinical trials. A detailed listing of the key questions is provided in the Clinical Evidence Review (http://stacks.cdc.gov/view/cdc/38026).
Clinical Evidence Systematic Review Methods

Complete methods and data for the 2014 AHRQ report, upon which this updated systematic review is based, have been published previously (14,52). Study authors developed the protocol using a standardized process (53) with input from experts and the public and registered the protocol in the PROSPERO database (54). For the 2014 AHRQ report, a research librarian searched MEDLINE, the Cochrane Central Register of Controlled Trials, the Cochrane Database of Systematic Reviews, PsycINFO, and CINAHL for English-language articles published January 2008 through August 2014, using search terms for opioid therapy, specific opioids, chronic pain, and comparative study designs. Also included were relevant studies from an earlier review (10) in which searches were conducted without a date restriction, reference lists were reviewed, and ClinicalTrials.gov was searched. CDC updated the AHRQ literature search using the same search strategies as in the original review including studies published before April, 2015. Seven additional studies met inclusion criteria and were added to the review. CDC used the GRADE approach outlined in the ACIP Handbook for Developing Evidence-Based Recommendations (47) to rate the quality of evidence for the full body of evidence (evidence from the 2014 AHRQ review plus the update) for each clinical question. Evidence was categorized into the following types: type 1 (randomized clinical trials or overwhelming evidence from observational studies), type 2 (randomized clinical trials with important limitations, or exceptionally strong evidence from observational studies), type 3 (observational studies, or randomized clinical trials with notable limitations), or type 4 (clinical experience and observations, observational studies with important limitations, or randomized clinical trials with several major limitations). When no studies were present, evidence was considered to be insufficient. Per GRADE methods, type of evidence was categorized by study design as well as a function of limitations in study design or implementation, imprecision of estimates, variability in findings, indirectness of evidence, publication bias, magnitude of treatment effects, dose-response gradient, and constellation of plausible biases that could change effects. Results were synthesized qualitatively, highlighting new evidence identified during the update process. Meta-analysis was not attempted due to the small numbers of studies, variability in study designs and clinical heterogeneity, and methodological shortcomings of the studies. More detailed information about data sources and searches, study selection, data extraction and quality assessment, data synthesis, and update search yield and new evidence for the current review is provided in the Clinical Evidence Review (http://stacks.cdc.gov/view/cdc/38026).

Summary of Findings for Clinical Questions

The main findings of this updated review are consistent with the findings of the 2014 AHRQ report (14). In summary, evidence on long-term opioid therapy for chronic pain outside of end-of-life care remains limited, with insufficient evidence to determine long-term benefits versus no opioid therapy, though evidence suggests risk for serious harms that appears to be dose-dependent. These findings supplement findings from a previous review of the effectiveness of opioids for adults with chronic noncancer pain. In this previous review, based on randomized trials predominantly ≤12 weeks in duration, opioids were found to be moderately effective for pain relief, with small benefits for functional outcomes; although estimates vary, based on uncontrolled studies, a high percentage of patients discontinued long-term opioid use because of lack of efficacy and because of adverse events (10).

The GRADE evidence summary with type of evidence ratings for the five clinical questions for the current evidence review are outlined (Table 1). This summary is based on studies included in the AHRQ 2014 review (35 studies) plus additional studies identified in the updated search (seven studies). Additional details on findings from the original review are provided in the full 2014 AHRQ report (14,52). Full details on the clinical evidence review findings supporting this guideline are provided in the Clinical Evidence Review (http://stacks.cdc.gov/view/cdc/38026).

Effectiveness

For KQ1, no study of opioid therapy versus placebo, no opioid therapy, or nonopioid therapy for chronic pain evaluated long-term (≥1 year) outcomes related to pain, function, or quality of life. Most placebo-controlled randomized clinical trials were ≤6 weeks in duration. Thus, the body of evidence for KQ1 is rated as insufficient (0 studies contributing) (14).

Harms

For KQ2, the body of evidence is rated as type 3 (12 studies contributing; 11 from the original review plus one new study). One fair-quality cohort study found that long-term opioid therapy is associated with increased risk for an opioid abuse or dependence diagnosis (as defined by ICD-9-CM codes) versus no opioid prescription (22). Rates of opioid abuse or dependence diagnosis ranged from 0.7% with lower-dose (≤36 MME) chronic therapy to 6.1% with higher-dose (≥120 MME) chronic therapy, versus 0.004% with no opioids prescribed. Ten fair-quality uncontrolled studies reported estimates of opioid abuse, addiction, and related outcomes (55–65). In primary care settings, prevalence of opioid dependence
(using DSM-IV criteria) ranged from 3% to 26% (55,56,59). In pain clinic settings, prevalence of addiction ranged from 2% to 14% (57,58,60,61,63–65).

Factors associated with increased risk for misuse included history of substance use disorder, younger age, major depression, and use of psychotropic medications (55,62). Two studies reported on the association between opioid use and risk for overdose (66,67). One large fair-quality retrospective cohort study found that recent opioid use was associated with increased risk for any overdose events and serious overdose events versus nonuse (66). It also found higher doses associated with increased risk. Relative to 1–19 MME/day, the adjusted hazard ratio (HR) for any overdose event (consisting of mostly nonfatal overdose) was 1.44 for 20 to 49 MME/day, 3.73 for 50–99 MME/day, and 8.87 for ≥100 MME/day. A similar pattern was observed for serious overdose. A good-quality population-based, nested case-control study also found a dose-dependent association with risk for overdose death (67). Relative to 1–19 MME/day, the adjusted odds ratio (OR) was 1.32 for 20–49 MME/day, 1.92 for 50–99 MME/day, 2.04 for 100–199 MME/day, and 2.88 for ≥200 MME/day.

Findings of increased fracture risk for current opioid use, versus nonuse, were mixed in two studies (68,69). Two studies found an association between opioid use and increased risk for cardiovascular events (70,71). Indirect evidence was found for endocrinologic harms (increased use of medications for erectile dysfunction or testosterone from one previously included study; laboratory-defined androgen deficiency from one newly reviewed study) (72,73). One study found that opioid dosages ≥20 MME/day were associated with increased odds of road trauma among drivers (74).

Opioid Dosing Strategies

For KQ3, the body of evidence is rated as type 4 (14 studies contributing; 12 from the original review plus two new studies). For initiation and titration of opioids, the 2014 AHRQ report found insufficient evidence from three fair-quality, open-label trials to determine comparative effectiveness of ER/LA versus immediate-release opioids for titrating patients to stable pain control (75,76). One new fair-quality cohort study of Veterans Affairs patients found initiation of therapy with an ER/LA opioid associated with greater risk for nonfatal overdose than initiation with an immediate-release opioid, with risk greatest in the first 2 weeks after initiation of treatment (77).

For comparative effectiveness and harms of ER/LA opioids, the 2014 AHRQ report included three randomized, head-to-head trials of various ER/LA opioids that found no clear differences in 1-year outcomes related to pain or function (78–80) but had methodological shortcomings. A fair-quality retrospective cohort study based on national Veterans Health Administration system pharmacy data found that methadone was associated with lower overall risk for all-cause mortality versus morphine (81), and a fair-quality retrospective cohort study based on Oregon Medicaid data found no statistically significant differences between methadone and long-acting morphine in risk for death or overdose symptoms (82). However, a new observational study (83) found methadone associated with increased risk for overdose versus sustained-release morphine among Tennessee Medicaid patients. The observed inconsistency in study findings suggests that risks of methadone might vary in different settings as a function of different monitoring and management protocols, though more research is needed to understand factors associated with safer methadone prescribing.

For dose escalation, the 2014 AHRQ report included one fair-quality randomized trial that found no differences between more liberal dose escalation and maintenance of current doses after 12 months in pain, function, all-cause withdrawals, or withdrawals due to opioid misuse (84). However, the difference in opioid dosages prescribed at the end of the trial was relatively small (mean 52 MME/day with more liberal dosing versus 40 MME/day). Evidence on other comparisons related to opioid dosing strategies (ER/LA versus immediate-release opioids; immediate-release plus ER/LA opioids versus ER/LA opioids alone; scheduled continuous dosing versus as-needed dosing; or opioid rotation versus maintenance of current therapy; long-term effects of strategies for treating acute exacerbations of chronic pain) was not available or too limited to determine effects on long-term clinical outcomes. For example, evidence on the comparative effectiveness of opioid tapering or discontinuation versus maintenance, and of different opioid tapering strategies, was limited to small, poor-quality studies (85–87).

Risk Assessment and Mitigation

For KQ4, the body of evidence is rated as type 3 for the accuracy of risk assessment tools and insufficient for the effectiveness of use of risk assessment tools and mitigation strategies in reducing harms (six studies contributing; four from the original review plus two new studies). The 2014 AHRQ report included four studies (88–91) on the accuracy of risk assessment instruments, administered prior to opioid therapy initiation, for predicting opioid abuse or misuse. Results for the Opioid Risk Tool (ORT) (89–91) were extremely inconsistent; evidence for other risk assessment instruments was very sparse, and studies had serious methodological shortcomings. One additional fair-quality (92) and one poor-quality (93) study identified for this update compared the predictive accuracy of the ORT, the Screener and Opioid Assessment for Patients with Pain-Revised (SOAPP-R), and the Brief Risk Interview.
For the ORT, sensitivity was 0.58 and 0.75 and specificity 0.54 and 0.86; for the SOAPP-R, sensitivity was 0.53 and 0.25 and specificity 0.62 and 0.73; and for the Brief Risk Interview, sensitivity was 0.73 and 0.83 and specificity 0.43 and 0.88. For the ORT, positive likelihood ratios ranged from noninformative (positive likelihood ratio close to 1) to moderately useful (positive likelihood ratio >5). The SOAPP-R was associated with noninformative likelihood ratios (estimates close to 1) in both studies.

No study evaluated the effectiveness of risk mitigation strategies (use of risk assessment instruments, opioid management plans, patient education, urine drug testing, use of PDMP data, use of monitoring instruments, more frequent monitoring intervals, pill counts, or use of abuse-deterrent formulations) for improving outcomes related to overdose, addiction, abuse, or misuse.

**Effects of Opioid Therapy for Acute Pain on Long-Term Use**

For KQ5, the body of evidence is rated as type 3 (two new studies contributing). Two fair-quality retrospective cohort studies found opioid therapy prescribed for acute pain associated with greater likelihood of long-term use. One study evaluated opioid-naïve patients who had undergone low-risk surgery, such as cataract surgery and varicose vein stripping (94). Use of opioids within 7 days of surgery was associated with increased risk for use at 1 year. The other study found that among patients with a workers’ compensation claim for acute low back pain, compared to patients who did not receive opioids early after injury (defined as use within 15 days following onset of pain), patients who did receive early opioids had an increased likelihood of receiving five or more opioid prescriptions 30–730 days following onset that increased with greater early exposure. Versus no early opioid use, the adjusted OR was 2.08 (95% CI = 1.55–2.78) for 1–140 MME/day and increased to 6.14 (95% confidence interval [CI] = 4.92–7.66) for ≥450 MME/day (95).

• Effectiveness of nonpharmacologic (e.g., cognitive behavioral therapy [CBT], exercise therapy, interventional treatments, and multimodal pain treatment) and nonopioid pharmacologic treatments (e.g., acetaminophen, nonsteroidal anti-inflammatory drugs [NSAIDs], antidepressants, and anticonvulsants), including studies of any duration.

• Benefits and harms of opioid therapy (including additional studies not included in the clinical evidence review, such as studies that were not restricted to patients with chronic pain, evaluated outcomes at any duration, performed ecological analyses, or used observational study designs other than cohort and case-cohort control studies) related to specific opioids, high-dose therapy, co-prescription with other controlled substances, duration of use, special populations, and potential usefulness of risk stratification/mitigation approaches, in addition to effectiveness of treatments associated with addressing potential harms of opioid therapy (opioid use disorder).

• Clinician and patient values and preferences related to opioids and medication risks, benefits, and use.

• Resource allocation including costs and economic efficiency of opioid prescribing and could inform or complement the CDC recommendations under development (e.g., guidelines on nonpharmacologic and nonopioid pharmacologic treatments and guidelines with recommendations related to specific clinician actions such as urine drug testing or opioid tapering protocols).

**Summary of the Contextual Evidence Review**

**Primary Areas of Focus**

Contextual evidence is complementary information that assists in translating the clinical research findings into recommendations. CDC conducted contextual evidence reviews on four topics to supplement the clinical evidence review findings:

**Contextual Evidence Review Methods**

CDC conducted a contextual evidence review to assist in developing the recommendations by providing an assessment of the balance of benefits and harms, values and preferences, and cost, consistent with the GRADE approach. Given the public health urgency for developing opioid prescribing recommendations, a rapid review was required for the contextual evidence review for the current guideline. Rapid reviews are used when there is a need to streamline the systematic review process to obtain evidence quickly (96). Methods used to streamline the process include limiting searches by databases, years, and languages considered, and truncating quality assessment and data abstraction protocols. CDC conducted “rapid reviews” of the contextual evidence on nonpharmacologic and nonopioid pharmacologic treatments, benefits and harms, values and preferences, and resource allocation.

Detailed information about contextual evidence data sources and searches, inclusion criteria, study selection, and
data extraction and synthesis are provided in the Contextual Evidence Review (http://stacks.cdc.gov/view/cdc/38027). In brief, CDC conducted systematic literature searches to identify original studies, systematic reviews, and clinical guidelines, depending on the topic being searched. CDC also solicited publication referrals from subject matter experts. Given the need for a rapid review process, grey literature (e.g., literature by academia, organizations, or government in the forms of reports, documents, or proceedings not published by commercial publishers) was not systematically searched. Database sources, including MEDLINE, PsycINFO, the Cochrane Central Register of Controlled Trials, and the Cochrane Database of Systematic Reviews, varied by topic. Multiple reviewers scanned study abstracts identified through the database searches and extracted relevant studies for review. CDC constructed narrative summaries and tables based on relevant articles that met inclusion criteria, which are provided in the Contextual Evidence Review (http://stacks.cdc.gov/view/cdc/38027).

Findings from the contextual reviews provide indirect evidence and should be interpreted accordingly. CDC did not formally rate the quality of evidence for the studies included in the contextual evidence review using the GRADE method. The studies that addressed benefits and harms, values and preferences, and resource allocation most often employed observational methods, used short follow-up periods, and evaluated selected samples. Therefore the strength of the evidence from these contextual review areas was considered to be low, comparable to type 3 or type 4 evidence. The quality of evidence for nonopioid pharmacologic and nonpharmacologic pain treatments was generally rated as moderate, comparable to type 2 evidence, in systematic reviews and clinical guidelines (e.g., for treatment of chronic neuropathic pain, low back pain treatments was generally rated as moderate, comparable to type 3 or type 4 evidence. The quality of evidence from these contextual review areas was considered to be low, comparable to type 3 or type 4 evidence. The quality of evidence and should be interpreted accordingly. CDC did not formally rate the quality of evidence for the studies included in the contextual evidence review using the GRADE method. The studies that addressed benefits and harms, values and preferences, and resource allocation most often employed observational methods, used short follow-up periods, and evaluated selected samples. Therefore the strength of the evidence from these contextual review areas was considered to be low, comparable to type 3 or type 4 evidence. The quality of evidence for nonopioid pharmacologic and nonpharmacologic pain treatments was generally rated as moderate, comparable to type 2 evidence, in systematic reviews and clinical guidelines.

Summary of Findings for Contextual Areas

Full narrative reviews and tables that summarize key findings from the contextual evidence review are provided in the Contextual Evidence Review (http://stacks.cdc.gov/view/cdc/38027).

Effectiveness of Nonpharmacologic and Nonopioid Pharmacologic Treatments

Several nonpharmacologic and nonopioid pharmacologic treatments have been shown to be effective in managing chronic pain in studies ranging in duration from 2 weeks to 6 months. For example, CBT that trains patients in behavioral techniques and helps patients modify situational factors and cognitive processes that exacerbate pain has small positive effects on disability and catastrophic thinking (97). Exercise therapy can help reduce pain and improve function in chronic low back pain (98), improve function and reduce pain in osteoarthritis of the knee (99) and hip (100), and improve well-being, fibromyalgia symptoms, and physical function in fibromyalgia (101). Multimodal and multidisciplinary therapies (e.g., therapies that combine exercise and related therapies with psychologically based approaches) can help reduce pain and improve function more effectively than single modalities (102,103). Nonopioid pharmacologic approaches used for pain include analgesics such as acetaminophen, NSAIDs, and cyclooxygenase 2 (COX-2) inhibitors; selected anticonvulsants, and selected antidepressants (particularly tricyclics and serotonin and norepinephrine reuptake inhibitors [SNRIs]). Multiple guidelines recommend acetaminophen as first-line pharmacotherapy for osteoarthritis (104–109) or for low back pain (110) but note that it should be avoided in liver failure and that dosage should be reduced in patients with hepatic insufficiency or a history of alcohol abuse (109). Although guidelines also recommend NSAIDs as first-line treatment for osteoarthritis or low back pain (106,110), NSAIDs and COX-2 inhibitors do have risks, including gastrointestinal bleeding or perforation as well as renal and cardiovascular risks (111). FDA has recently strengthened existing label warnings that NSAIDs increase risks for heart attack and stroke, including that these risks might increase with longer use or at higher doses (112). Several guidelines agree that first- and second-line drugs for neuropathic pain include anticonvulsants (gabapentin or pregabalin), tricyclic antidepressants, and SNRIs (113–116). Interventional approaches such as epidural injection for certain conditions (e.g., lumbar radiculopathy) can provide short-term improvement in pain (117–119). Epidural injection has been associated with rare but serious adverse events, including loss of vision, stroke, paralysis, and death (120).

Benefits and Harms of Opioid Therapy

Balance between benefits and harms is a critical factor influencing the strength of clinical recommendations. In particular, CDC considered what is known from the epidemiology research about benefits and harms related to specific opioids and formulations, high dose therapy, co-prescription with other controlled substances, duration of use, special populations, and risk stratification and mitigation approaches. Additional information on benefits and harms of long-term opioid therapy from studies meeting rigorous selection criteria is provided in the clinical evidence review (e.g., see KQ2). CDC also considered the number of persons experiencing chronic pain, numbers potentially benefiting
from opioids, and numbers affected by opioid-related harms. A review of these data is presented in the background section of this document, with detailed information provided in the Contextual Evidence Review (http://stacks.cdc.gov/view/cdc/38027). Finally, CDC considered the effectiveness of treatments that addressed potential harms of opioid therapy (opoid use disorder).

Regarding specific opioids and formulations, as noted by FDA, there are serious risks of ER/LA opioids, and the indication for this class of medications is for management of pain severe enough to require daily, around-the-clock, long-term opioid treatment in patients for whom other treatment options (e.g., nonopioid analgesics or immediate-release opioids) are ineffective, not tolerated, or would be otherwise inadequate to provide sufficient management of pain (121). Time-scheduled opioid use was associated with substantially higher average daily opioid dosage than as-needed opioid use in one study (122). Methadone has been associated with disproportionate numbers of overdose deaths relative to the frequency with which it is prescribed for pain. Methadone has been found to account for as much as a third of opioid prescriptions outside of opioid treatment programs in the United States; further, methadone was involved in twice as many single-drug deaths as any other prescription opioid (123).

Regarding high-dose therapy, several epidemiologic studies that were excluded from the clinical evidence review because patient samples were not restricted to patients with chronic pain also examined the association between opioid dosage and overdose risk (23,24,124–126). Consistent with the clinical evidence review, the contextual review found that opioid-related overdose risk is dose-dependent, with higher opioid dosages associated with increased overdose risk. Two of these studies (23,24), as well as the two studies in the clinical evidence review (66,67), evaluated similar MME/day dose ranges for association with overdose risk. In these four studies, compared with opioids prescribed at <20 MME/day, the odds of overdose among patients prescribed opioids for chronic nonmalignant pain were between 1.3 (67) and 1.9 (24) for dosages of 20 to <50 MME/day, between 1.9 (67) and 4.6 (24) for dosages of 50 to <100 MME/day, and between 2.0 (67) and 8.9 (66) for dosages of ≥100 MME/day. Compared with dosages of 1–<20 MME/day, absolute risk difference approximation for 50–<100 MME/day was 0.15% for fatal overdose (24) and 1.40% for any overdose (66), and for ≥100 MME/day was 0.25% for fatal overdose (24) and 4.04% for any overdose (66). A recent study of Veterans Health Administration patients with chronic pain found that patients who died of overdoses related to opioids were prescribed higher opioid dosages (mean: 98 MME/day; median: 60 MME/day) than controls (mean: 48 MME/day, median: 25 MME/day) (127). Finally, another recent study of overdose deaths among state residents with and without opioid prescriptions revealed that prescription opioid-related overdose mortality rates rose rapidly up to prescribed doses of 200 MME/day, after which the mortality rates continued to increase but grew more gradually (128). A listing of common opioid medications and their MME equivalents is provided (Table 2).

Regarding coprescription of opioids with benzodiazepines, epidemiologic studies suggest that concurrent use of benzodiazepines and opioids might put patients at greater risk for potentially fatal overdose. Three studies of fatal overdose deaths found evidence of concurrent benzodiazepine use in 31%–61% of decedents (67,128,129). In one of these studies (67), among decedents who received an opioid prescription, those whose deaths were related to opioids were more likely to have obtained opioids from multiple physicians and pharmacies than decedents whose deaths were not related to opioids.

Regarding duration of use, patients can experience tolerance and loss of effectiveness of opioids over time (130). Patients who do not experience clinically meaningful pain relief early in treatment (i.e., within 1 month) are unlikely to experience pain relief with longer-term use (131).

Regarding populations potentially at greater risk for harm, risk is greater for patients with sleep apnea or other causes of sleep-disordered breathing, patients with renal or hepatic insufficiency, older adults, pregnant women, patients with depression or other mental health conditions, and patients with alcohol or other substance use disorders. Interpretation of clinical data on the effects of opioids on sleep-disordered breathing is difficult because of the types of study designs and methods employed, and there is no clear consensus regarding association with risk for developing obstructive sleep apnea syndrome (132). However, opioid therapy can decrease respiratory drive, a high percentage of patients on long-term opioid therapy have been reported to have an abnormal apnea-hypopnea index (133), opioid therapy can worsen central sleep apnea in obstructive sleep apnea patients, and it can cause further desaturation in obstructive sleep apnea patients not on continuous positive airway pressure (CPAP) (31). Reduced renal or hepatic function can result in greater peak effect and longer duration of action and reduce the dose at which respiratory depression and overdose occurs (134). Age-related changes in patients aged ≥65 years, such as reduced renal function and medication clearance, even in the absence of renal disease (135), result in a smaller therapeutic window between safe dosages and dosages associated with respiratory depression and overdose. Older adults might also be at increased risk for falls and fractures related to opioids (136–138). Opioids used
in pregnancy can be associated with additional risks to both mother and fetus. Some studies have shown an association of opioid use in pregnancy with birth defects, including neural tube defects (139,140), congenital heart defects (140), and gastroschisis (140); preterm delivery (141), poor fetal growth (141), and stillbirth (141). Importantly, in some cases, opioid use during pregnancy leads to neonatal opioid withdrawal syndrome (142). Patients with mental health comorbidities and patients with histories of substance use disorders might be at higher risk than other patients for opioid use disorder (62,143,144). Recent analyses found that depressed patients were at higher risk for drug overdose than patients without depression, particularly at higher opioid dosages, although investigators were unable to distinguish unintentional overdose from suicide attempts (145). In case-control and case-cohort studies, substance abuse/dependence was more prevalent among patients experiencing overdose than among patients not experiencing overdose (12% versus 6% [66], 40% versus 10% [24], and 26% versus 9% [23]).

Regarding risk stratification approaches, limited evidence was found regarding benefits and harms. Potential benefits of PDMPs and urine drug testing include the ability to identify patients who might be at higher risk for opioid overdose or opioid use disorder, and help determine which patients will benefit from greater caution and increased monitoring or interventions when risk factors are present. For example, one study found that most fatal overdoses could be identified retrospectively on the basis of two pieces of information, multiple prescribers and high total daily opioid dosage, both important risk factors for overdose (124,146) that are available to prescribers in the PDMP (124). However, limited evaluation of PDMPs at the state level has revealed mixed effects on changes in prescribing and mortality outcomes (28). Potential harms of risk stratification include underestimation of risks of opioid therapy when screening tools are not adequately sensitive, as well as potential overestimation of risk, which could lead to inappropriate clinical decisions.

Regarding risk mitigation approaches, limited evidence was found regarding benefits and harms. Although no studies were found to examine prescribing of naloxone with opioid pain medication in primary care settings, naloxone distribution through community-based programs providing prevention services for substance users has been demonstrated to be associated with decreased risk for opioid overdose death at the community level (147).

Concerns have been raised that prescribing changes such as dose reduction might be associated with unintended negative consequences, such as patients seeking heroin or other illicitly obtained opioids (148) or interference with appropriate pain treatment (149). With the exception of a study noting an association between an abuse-deterrent formulation of OxyContin and heroin use, showing that some patients in qualitative interviews reported switching to another opioid, including heroin, for many reasons, including cost and availability as well as ease of use (150), CDC did not identify studies evaluating these potential outcomes.

Finally, regarding the effectiveness of opioid use disorder treatments, methadone and buprenorphine for opioid use disorder have been found to increase retention in treatment and to decrease illicit opioid use among patients with opioid use disorder involving heroin (151–153). Although findings are mixed, some studies suggest that effectiveness is enhanced when psychosocial treatments (e.g., contingency management, community reinforcement, psychotherapeutic counseling, and family therapy) are used in conjunction with medication-assisted therapy; for example, by reducing opioid misuse and increasing retention during maintenance therapy, and improving compliance after detoxification (154,155).

**Clinic and Patient Values and Preferences**

Clinic and patient values and preferences can inform how benefits and harms of long-term opioid therapy are weighted and estimate the effort and resources required to effectively provide implementation support. Many physicians lack confidence in their ability to prescribe opioids safely (156), to predict (157) or detect (158) prescription drug abuse, and to discuss abuse with their patients (158). Although clinicians have reported favorable beliefs and attitudes about improvements in pain and quality of life attributed to opioids (159), most consider prescription drug abuse to be a “moderate” or “big” problem in their community, and large proportions are “very” concerned about opioid addiction (55%) and death (48%) (160). Clinicians do not consistently use practices intended to decrease the risk for misuse, such as PDMPs (161,162), urine drug testing (163), and opioid treatment agreements (164). This is likely due in part to challenges related to registering for PDMP access and logging into the PDMP (which can interrupt normal clinical workflow if data are not integrated into electronic health record systems) (165), competing clinical demands, perceived inadequate time to discuss the rationale for urine drug testing and to order confirmatory testing, and feeling unprepared to interpret and address results (166).

Many patients do not have an opinion about “opioids” or know what this term means (167). Most are familiar with the term “narcotics.” About a third associated “narcotics” with addiction or abuse, and about half feared “addiction” from long-term “narcotic” use (168). Most patients taking opioids experience side effects (73% of patients taking hydrocodone for noncancer pain [17], 96% of patients taking opioids for chronic pain [12]), and side effects, rather than pain relief,
have been found to explain most of the variation in patients’ preferences related to taking opioids (12). For example, patients taking hydrocodone for noncancer pain commonly reported side effects including dizziness, headache, fatigue, drowsiness, nausea, vomiting, and constipation (11). Patients with chronic pain in focus groups emphasized effectiveness of goal setting for increasing motivation and functioning (168). Patients taking high dosages report reliance on opioids despite ambivalence about their benefits (169) and regardless of pain reduction, reported problems, concerns, side effects, or perceived helpfulness (13).

Resource Allocation

Resource allocation (cost) is an important consideration in understanding the feasibility of clinical recommendations. CDC searched for evidence on opioid therapy compared with other treatments; costs of misuse, abuse, and overdose from prescription opioids; and costs of specific risk mitigation strategies (e.g., urine drug testing). Yearly direct and indirect costs related to prescription opioids have been estimated (based on studies published since 2010) to be $53.4 billion for nonmedical use of prescription opioids (170); $55.7 billion for abuse, dependence (i.e., opioid use disorder), and misuse of prescription opioids (171); and $20.4 billion for direct and indirect costs related to opioid-related overdose alone (172). In 2012, total expenses for outpatient prescription opioids were estimated at $9.0 billion, an increase of 120% from 2002 (173). Although there are perceptions that opioid therapy for chronic pain is less expensive than more time-intensive nonpharmacologic management approaches, many pain treatments, including acetaminophen, NSAIDs, tricyclic antidepressants, and massage therapy, are associated with lower mean and median annual costs compared with opioid therapy (174). COX-2 inhibitors, SNRIs, anticonvulsants, topical analgesics, physical therapy, and CBT are also associated with lower median annual costs compared with opioid therapy (174). Limited information was found on costs of strategies to decrease risks associated with opioid therapy; however, urine drug testing, including screening and confirmatory tests, has been estimated to cost $211–$363 per test (175).

There are 12 recommendations (Box 1). Each recommendation is followed by a rationale for the recommendation, with considerations for implementation noted. In accordance with the ACIP GRADE process, CDC based the recommendations on consideration of the clinical evidence, contextual evidence (including benefits and harms, values and preferences, resource allocation), and expert opinion. For each recommendation statement, CDC notes the recommendation category (A or B) and the type of the evidence (1, 2, 3, or 4) supporting the statement (Box 2). Expert opinion is reflected within each of the recommendation rationales. While there was not an attempt to reach consensus among experts, experts from the Core Expert Group and from the Opioid Guideline Workgroup (“experts”) expressed overall, general support for all recommendations. Where differences in expert opinion emerged for detailed actions within the clinical recommendations or for implementation considerations, CDC notes the differences of opinion in the supporting rationale statements.

Category A recommendations indicate that most patients should receive the recommended course of action; category B recommendations indicate that different choices will be appropriate for different patients, requiring clinicians to help patients arrive at a decision consistent with patient values and preferences and specific clinical situations. Consistent with the ACIP (47) and GRADE process (48), category A recommendations were made, even with type 3 and 4 evidence, when there was broad agreement that the advantages of a clinical action greatly outweighed the disadvantages based on a consideration of benefits and harms, values and preferences, and resource allocation. Category B recommendations were made when there was broad agreement that the advantages and disadvantages of a clinical action were more balanced, but advantages were significant enough to warrant a recommendation. All recommendations are category A recommendations, with the exception of recommendation 10, which is rated as category B. Recommendations were associated with a range of evidence types, from type 2 to type 4.

In summary, the categorization of recommendations was based on the following assessment:

- No evidence shows a long-term benefit of opioids in pain and function versus no opioids for chronic pain with outcomes examined at least 1 year later (with most placebo-controlled randomized trials ≤6 weeks in duration).
- Extensive evidence shows the possible harms of opioids (including opioid use disorder, overdose, and motor vehicle injury).
- Extensive evidence suggests some benefits of nonpharmacologic and nonopioid pharmacologic treatments compared with long-term opioid therapy, with less harm.

**Recommendations**

The recommendations are grouped into three areas for consideration:

- Determining when to initiate or continue opioids for chronic pain.
- Opioid selection, dosage, duration, follow-up, and discontinuation.
- Assessing risk and addressing harms of opioid use.
### Determining When to Initiate or Continue Opioids for Chronic Pain
1. Nonpharmacologic therapy and nonopioid pharmacologic therapy are preferred for chronic pain. Clinicians should consider opioid therapy only if expected benefits for both pain and function are anticipated to outweigh risks to the patient. If opioids are used, they should be combined with nonpharmacologic therapy and nonopioid pharmacologic therapy, as appropriate.
2. Before starting opioid therapy for chronic pain, clinicians should establish treatment goals with all patients, including realistic goals for pain and function, and should consider how therapy will be discontinued if benefits do not outweigh risks. Clinicians should continue opioid therapy only if there is clinically meaningful improvement in pain and function that outweighs risks to patient safety.
3. Before starting and periodically during opioid therapy, clinicians should discuss with patients known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy.

### Opioid Selection, Dosage, Duration, Follow-Up, and Discontinuation
4. When starting opioid therapy for chronic pain, clinicians should prescribe immediate-release opioids instead of extended-release/long-acting (ER/LA) opioids.
5. When opioids are started, clinicians should prescribe the lowest effective dosage. Clinicians should use caution when prescribing opioids at any dosage, should carefully reassess evidence of individual benefits and risks when increasing dosage to ≥50 morphine milligram equivalents (MME)/day, and should avoid increasing dosage to ≥90 MME/day or carefully justify a decision to titrate dosage to ≥90 MME/day.
6. Long-term opioid use often begins with treatment of acute pain. When opioids are used for acute pain, clinicians should prescribe the lowest effective dose of immediate-release opioids and should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids. Three days or less will often be sufficient; more than seven days will rarely be needed.
7. Clinicians should evaluate benefits and harms with patients within 1 to 4 weeks of starting opioid therapy for chronic pain or of dose escalation. Clinicians should evaluate benefits and harms of continued therapy with patients every 3 months or more frequently. If benefits do not outweigh harms of continued opioid therapy, clinicians should optimize other therapies and work with patients to taper opioids to lower dosages or to taper and discontinue opioids.

### Assessing Risk and Addressing Harms of Opioid Use
8. Before starting and periodically during continuation of opioid therapy, clinicians should evaluate risk factors for opioid-related harms. Clinicians should incorporate into the management plan strategies to mitigate risk, including considering offering naloxone when factors that increase risk for opioid overdose, such as history of overdose, history of substance use disorder, higher opioid dosages (≥50 MME/day), or concurrent benzodiazepine use, are present.
9. Clinicians should review the patient’s history of controlled substance prescriptions using state prescription drug monitoring program (PDMP) data to determine whether the patient is receiving opioid dosages or dangerous combinations that put him or her at high risk for overdose. Clinicians should review PDMP data when starting opioid therapy for chronic pain and periodically during opioid therapy for chronic pain, ranging from every prescription to every 3 months.
10. When prescribing opioids for chronic pain, clinicians should use urine drug testing before starting opioid therapy and consider urine drug testing at least annually to assess for prescribed medications as well as other controlled prescription drugs and illicit drugs.
11. Clinicians should avoid prescribing opioid pain medication and benzodiazepines concurrently whenever possible.
12. Clinicians should offer or arrange evidence-based treatment (usually medication-assisted treatment with buprenorphine or methadone in combination with behavioral therapies) for patients with opioid use disorder.

*All recommendations are category A (apply to all patients outside of active cancer treatment, palliative care, and end-of-life care) except recommendation 10 (designated category B, with individual decision making required); see full guideline for evidence ratings.*
Recommendation Categories

Based on evidence type, balance between desirable and undesirable effects, values and preferences, and resource allocation (cost).

**Category A recommendation**: Applies to all persons; most patients should receive the recommended course of action.

**Category B recommendation**: Individual decision making needed; different choices will be appropriate for different patients. Clinicians help patients arrive at a decision consistent with patient values and preferences and specific clinical situations.

Evidence Type

Based on study design as well as a function of limitations in study design or implementation, imprecision of estimates, variability in findings, indirectness of evidence, publication bias, magnitude of treatment effects, dose-response gradient, and constellation of plausible biases that could change effects.

**Type 1 evidence**: Randomized clinical trials or overwhelming evidence from observational studies.

**Type 2 evidence**: Randomized clinical trials with important limitations, or exceptionally strong evidence from observational studies.

**Type 3 evidence**: Observational studies or randomized clinical trials with notable limitations.

**Type 4 evidence**: Clinical experience and observations, observational studies with important limitations, or randomized clinical trials with several major limitations.

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**Determining When to Initiate or Continue Opioids for Chronic Pain**

1. **Nonpharmacologic therapy and nonopioid pharmacologic therapy are preferred for chronic pain.** Clinicians should consider opioid therapy only if expected benefits for both pain and function are anticipated to outweigh risks to the patient. If opioids are used, they should be combined with nonpharmacologic therapy and nonopioid pharmacologic therapy, as appropriate (recommendation category: A, evidence type: 3).

Patients with pain should receive treatment that provides the greatest benefits relative to risks. The contextual evidence review found that many nonpharmacologic therapies, including physical therapy, weight loss for knee osteoarthritis, psychological therapies such as CBT, and certain interventional procedures can ameliorate chronic pain. There is high-quality evidence that exercise therapy (a prominent modality in physical therapy) for hip (100) or knee (99) osteoarthritis reduces pain and improves function immediately after treatment and that the improvements are sustained for at least 2–6 months. Previous guidelines have strongly recommended aerobic, aquatic, and/or resistance exercises for patients with osteoarthritis of the knee or hip (176). Exercise therapy also can help reduce pain and improve function in low back pain and can improve global well-being and physical function in fibromyalgia (98,101). Multimodal therapies and multidisciplinary biopsychosocial rehabilitation-combining approaches (e.g., psychological therapies with exercise) can reduce long-term pain and disability compared with usual care and compared with physical treatments (e.g., exercise) alone. Multimodal therapies are not always available or reimbursed by insurance and can be time-consuming and costly for patients. Interventional approaches such as arthrocentesis and intraarticular glucocorticoid injection for pain associated with rheumatoid arthritis (117) or osteoarthritis (118) and subacromial corticosteroid injection for rotator cuff disease (119) can provide short-term improvement in pain and function. Evidence is insufficient to determine the extent to which repeated glucocorticoid injection increases potential risks such as articular cartilage changes (in osteoarthritis) and sepsis (118). Serious adverse events are rare but have been reported with epidural injection (120).

Several nonopioid pharmacologic therapies (including acetaminophen, NSAIDs, and selected antidepressants and anticonvulsants) are effective for chronic pain. In particular, acetaminophen and NSAIDs can be useful for arthritis and low back pain. Selected anticonvulsants such as pregabalin and gabapentin can improve pain in diabetic neuropathy and post-herpetic neuralgia (contextual evidence review). Pregabalin, gabapentin, and carbamazepine are FDA-approved for treatment of certain neuropathic pain conditions, and pregabalin is FDA approved for fibromyalgia management. In patients with or without depression, tricyclic antidepressants and SNRIs provide effective analgesia for neuropathic pain conditions including diabetic neuropathy and post-herpetic neuralgia, often at lower dosages and with a shorter time to onset of effect than for treatment of depression (see contextual evidence review). Tricyclics and SNRIs can also relieve fibromyalgia symptoms. The SNRI duloxetine is FDA-approved for the treatment of diabetic neuropathy and fibromyalgia. Because patients with chronic pain often suffer from concurrent depression (144), and depression can exacerbate physical symptoms including pain (177), patients with co-occurring pain and depression are especially likely to benefit from antidepressant medication (see Recommendation 8). Nonopioid pharmacologic therapies
are not generally associated with substance use disorder, and the numbers of fatal overdoses associated with nonopioid medications are a fraction of those associated with opioid medications (contextual evidence review). For example, acetaminophen, NSAIDs, and opioid pain medication were involved in 881, 228, and 16,651 pharmaceutical overdose deaths in the United States in 2010 (178). However, nonopioid pharmacologic therapies are associated with certain risks, particularly in older patients, pregnant patients, and patients with certain co-morbidities such as cardiovascular, renal, gastrointestinal, and liver disease (see contextual evidence review). For example, acetaminophen can be hepatotoxic at dosages of >3–4 grams/day and at lower dosages in patients with chronic alcohol use or liver disease (109). NSAID use has been associated with gastritis, peptic ulcer disease,/indexarthritis, and liver disease (see contextual evidence review). With certain co-morbidities such as cardiovascular, renal, gastrointestinal, and liver disease, (see contextual evidence review). Nonpharmacologic physical treatments such as exercise and CBT are approaches that encourage active patient participation in the care plan, address the effects of pain in the patient’s life, and can result in sustained improvements in pain and function without apparent risks. Despite this, these therapies are not always or fully covered by insurance, and access and cost can be barriers for patients. For many patients, aspects of these approaches can be used even when there is limited access to specialty care. For example, previous guidelines have strongly recommended aerobic, aquatic, and/or resistance exercises for patients with osteoarthritis of the knee or hip (176) and maintenance of activity for patients with low back pain (110). A randomized trial found no difference in reduced chronic low back pain intensity, frequency or disability between patients assigned to relatively low-cost group aerobics and individual physiotherapy or muscle reconditioning sessions (181). Low-cost options to integrate exercise include brisk walking in public spaces or use of public recreation facilities for group exercise. CBT addresses psychosocial contributors to pain and improves function (97). Primary care clinicians can integrate elements of a cognitive behavioral approach into their practice by encouraging patients to take an active role in the care plan, by supporting patients in engaging in beneficial but potentially anxiety-provoking activities, such as exercise (179), or by providing education in relaxation techniques and coping strategies. In many locations, there are free or low-cost patient support, self-help, and educational community-based programs that can provide stress reduction and other mental health benefits. Patients with more entrenched anxiety or fear related to pain, or other significant psychological distress, can be referred for formal therapy with a mental health specialist (e.g., psychologist, psychiatrist, clinical social worker). Multimodal therapies should be considered for patients not responding to single-modality therapy, and combinations should be tailored depending on patient needs, cost, and convenience.

To guide patient-specific selection of therapy, clinicians should evaluate patients and establish or confirm the diagnosis. Detailed recommendations on diagnosis are provided in other guidelines (110,179), but evaluation should generally include a focused history, including history and characteristics of pain and potentially contributing factors (e.g., function, psychosocial stressors, sleep) and physical exam, with imaging or other diagnostic testing only if indicated (e.g., if severe or progressive neurologic deficits are present or if serious underlying conditions are suspected) (110,179). For complex pain syndromes, pain specialty consultation can be considered to assist with diagnosis as well as management. Diagnosis can help identify disease-specific interventions to reverse or ameliorate pain; for example, improving glucose control to prevent progression of diabetic neuropathy; immune-modulating agents for rheumatoid arthritis; physical or occupational therapy to address posture, muscle weakness, or repetitive occupational motions that contribute to musculoskeletal pain; or surgical intervention to relieve mechanical/compressive pain (179). The underlying mechanism for most pain syndromes can be categorized as neuropathic (e.g., diabetic neuropathy, postherpetic neuralgia, fibromyalgia), or nociceptive (e.g., osteoarthritis, muscular back pain). The diagnosis and pathophysiologic mechanism of pain have implications for symptomatic pain treatment with medication. For example, evidence is limited or insufficient
for improved pain or function with long-term use of opioids for several chronic pain conditions for which opioids are commonly prescribed, such as low back pain (182), headache (183), and fibromyalgia (184). Although NSAIDs can be used for exacerbations of nociceptive pain, other medications (e.g., tricyclics, selected anticonvulsants, or transdermal lidocaine) generally are recommended for neuropathic pain. In addition, improvement of neuropathic pain can begin weeks or longer after symptomatic treatment is initiated (179). Medications should be used only after assessment and determination that expected benefits outweigh risks given patient-specific factors. For example, clinicians should consider falls risk when selecting and dosing potentially sedating medications such as tricyclics, anticonvulsants, or opioids, and should weigh risks and benefits of use, dose, and duration of NSAIDs when treating older adults as well as patients with hypertension, renal insufficiency, or heart failure, or those with risk for peptic ulcer disease or cardiovascular disease. Some guidelines recommend topical NSAIDs for localized osteoarthritis (e.g., knee osteoarthritis) over oral NSAIDs in patients aged ≥75 years to minimize systemic effects (176).

Experts agreed that opioids should not be considered first-line or routine therapy for chronic pain (i.e., pain continuing or expected to continue >3 months or past the time of normal tissue healing) outside of active cancer, palliative, and end-of-life care, given small to moderate short-term benefits, uncertain long-term benefits, and potential for serious harms; although evidence on long-term benefits of nonopioid therapies is also limited, these therapies are also associated with short-term benefits, and risks are much lower. This does not mean that patients should be required to sequentially “fail” nonpharmacologic and nonopioid pharmacologic therapy before proceeding to opioid therapy. Rather, expected benefits specific to the clinical context should be weighed against risks before initiating therapy. In some clinical contexts (e.g., headache or fibromyalgia), expected benefits of initiating opioids are unlikely to outweigh risks regardless of previous nonpharmacologic and nonopioid pharmacologic therapies used. In other situations (e.g., serious illness in a patient with poor prognosis for return to previous level of function, contraindications to other therapies, and clinician and patient agreement that the overriding goal is patient comfort), opioids might be appropriate regardless of previous therapies used. In addition, when opioid pain medication is used, it is more likely to be effective if integrated with nonpharmacologic therapy. Nonpharmacologic approaches such as exercise and CBT should be used to reduce pain and improve function in patients with chronic pain. Nonopioid pharmacologic therapy should be used when benefits outweigh risks and should be combined with nonpharmacologic therapy to reduce pain and improve function. If opioids are used, they should be combined with nonpharmacologic therapy and nonopioid pharmacologic therapy, as appropriate, to provide greater benefits to patients in improving pain and function.

2. Before starting opioid therapy for chronic pain, clinicians should establish treatment goals with all patients, including realistic goals for pain and function, and should consider how opioid therapy will be discontinued if benefits do not outweigh risks. Clinicians should continue opioid therapy only if there is clinically meaningful improvement in pain and function that outweighs risks to patient safety (recommendation category: A, evidence type: 4).

The clinical evidence review found insufficient evidence to determine long-term benefits of opioid therapy for chronic pain and found an increased risk for serious harms related to long-term opioid therapy that appears to be dose-dependent. In addition, studies on currently available risk assessment instruments were sparse and showed inconsistent results (KQ4). The clinical evidence review for the current guideline considered studies with outcomes examined at ≥1 year that compared opioid use versus nonuse or placebo. Studies of opioid therapy for chronic pain that did not have a nonopioid control group have found that although many patients discontinue opioid therapy for chronic noncancer pain due to adverse effects or insufficient pain relief, there is weak evidence that patients who are able to continue opioid therapy for at least 6 months can experience clinically significant pain relief and insufficient evidence that function or quality of life improves (185). These findings suggest that it is very difficult for clinicians to predict whether benefits of opioids for chronic pain will outweigh risks of ongoing treatment for individual patients. Opioid therapy should not be initiated without consideration of an “exit strategy” to be used if the therapy is unsuccessful.

Experts agreed that before opioid therapy is initiated for chronic pain outside of active cancer, palliative, and end-of-life care, clinicians should determine how effectiveness will be evaluated and should establish treatment goals with patients. Because the line between acute pain and initial chronic pain is not always clear, it might be difficult for clinicians to determine when they are initiating opioids for chronic pain rather than treating acute pain. Pain lasting longer than 3 months or past the time of normal tissue healing (which could be substantially shorter than 3 months, depending on the condition) is generally no longer considered acute. However, establishing treatment goals with a patient who has already received opioid therapy for 3 months would defer this discussion well past the point of
initiation of opioid therapy for chronic pain. Clinicians often write prescriptions for long-term use in 30-day increments, and opioid prescriptions written for ≥30 days are likely to represent initiation or continuation of long-term opioid therapy. Before writing an opioid prescription for ≥30 days, clinicians should establish treatment goals with patients. Clinicians seeing new patients already receiving opioids should establish treatment goals for continued opioid therapy. Although the clinical evidence review did not find studies evaluating the effectiveness of written agreements or treatment plans (KQ4), clinicians and patients who set a plan in advance will clarify expectations regarding how opioids will be prescribed and monitored, as well as situations in which opioids will be discontinued or doses tapered (e.g., if treatment goals are not met, opioids are no longer needed, or adverse events put the patient at risk) to improve patient safety.

Experts thought that goals should include improvement in both pain relief and function (and therefore in quality of life). However, there are some clinical circumstances under which reductions in pain without improvement in physical function might be a more realistic goal (e.g., diseases typically associated with progressive functional impairment or catastrophic injuries such as spinal cord trauma). Experts noted that function can include emotional and social as well as physical dimensions. In addition, experts emphasized that mood has important interactions with pain and function. Experts agreed that clinicians may use validated instruments such as the three-item “Pain average, interference with Enjoyment of life, and interference with General activity” (PEG) Assessment Scale (186) to track patient outcomes. Clinically meaningful improvement has been defined as a 30% improvement in scores for both pain and function (187). Monitoring progress toward patient-centered functional goals (e.g., walking the dog or walking around the block, returning to part-time work, attending family sports or recreational activities) can also contribute to the assessment of functional improvement. Clinicians should use these goals in assessing benefits of opioid therapy for individual patients and in weighing benefits against risks of continued opioid therapy (see Recommendation 7, including recommended intervals for follow-up). Because depression, anxiety, and other psychological co-morbidities often coexist with and can interfere with resolution of pain, clinicians should use validated instruments to assess for these conditions (see Recommendation 8) and ensure that treatment for these conditions is optimized. If patients receiving opioid therapy for chronic pain do not experience meaningful improvements in both pain and function compared with prior to initiation of opioid therapy, clinicians should consider working with patients to taper and discontinue opioids (see Recommendation 7) and should use nonpharmacologic and nonopioid pharmacologic approaches to pain management (see Recommendation 1).

3. Before starting and periodically during opioid therapy, clinicians should discuss with patients known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy (recommendation category: A, evidence type: 3).

The clinical evidence review did not find studies evaluating effectiveness of patient education or opioid treatment plans as risk-mitigation strategies (KQ4). However, the contextual evidence review found that many patients lack information about opioids and identified concerns that some clinicians miss opportunities to effectively communicate about safety. Given the substantial evidence gaps on opioids, uncertain benefits of long-term use, and potential for serious harms, patient education and discussion before starting opioid therapy are critical so that patient preferences and values can be understood and used to inform clinical decisions. Experts agreed that essential elements to communicate to patients before starting and periodically during opioid therapy include realistic expected benefits, common and serious harms, and expectations for clinician and patient responsibilities to mitigate risks of opioid therapy.

Clinicians should involve patients in decisions about whether to start or continue opioid therapy. Given potentially serious risks of long-term opioid therapy, clinicians should ensure that patients are aware of potential benefits of, harms of, and alternatives to opioids before starting or continuing opioid therapy. Clinicians are encouraged to have open and honest discussions with patients to inform mutual decisions about whether to start or continue opioid therapy. Important considerations include the following:

- Be explicit and realistic about expected benefits of opioids, explaining that while opioids can reduce pain during short-term use, there is no good evidence that opioids improve pain or function with long-term use, and that complete relief of pain is unlikely (clinical evidence review, KQ1).
- Emphasize improvement in function as a primary goal and that function can improve even when pain is still present.
- Advise patients about serious adverse effects of opioids, including potentially fatal respiratory depression and development of a potentially serious lifelong opioid use disorder that can cause distress and inability to fulfill major role obligations.
- Advise patients about common effects of opioids, such as constipation, dry mouth, nausea, vomiting, drowsiness, confusion, tolerance, physical dependence, and withdrawal symptoms when stopping opioids. To prevent constipation associated with opioid use, advise patients to increase
hydration and fiber intake and to maintain or increase physical activity. Stool softeners or laxatives might be needed.

- Discuss effects that opioids might have on ability to safely operate a vehicle, particularly when opioids are initiated, when dosages are increased, or when other central nervous system depressants, such as benzodiazepines or alcohol, are used concurrently.

- Discuss increased risks for opioid use disorder, respiratory depression, and death at higher dosages, along with the importance of taking only the amount of opioids prescribed, i.e., not taking more opioids or taking them more often.

- Review increased risks for respiratory depression when opioids are taken with benzodiazepines, other sedatives, alcohol, illicit drugs such as heroin, or other opioids.

- Discuss risks to household members and other individuals if opioids are intentionally or unintentionally shared with others for whom they are not prescribed, including the possibility that others might experience overdose at the same or at lower dosage than prescribed for the patient, and that young children are susceptible to unintentional ingestion. Discuss storage of opioids in a secure, preferably locked location and options for safe disposal of unused opioids (188).

- Discuss the importance of periodic reassessment to ensure that opioids are helping to meet patient goals and to allow opportunities for opioid discontinuation and consideration of additional nonpharmacologic or nonopioid pharmacologic treatment options if opioids are not effective or are harmful.

- Discuss planned use of precautions to reduce risks, including use of prescription drug monitoring program information (see Recommendation 9) and urine drug testing (see Recommendation 10). Consider including discussion of naloxone use for overdose reversal (see Recommendation 8).

- Consider whether cognitive limitations might interfere with management of opioid therapy (for older adults in particular) and, if so, determine whether a caregiver can responsibly co-manage medication therapy. Discuss the importance of reassessing safer medication use with both the patient and caregiver.

Given the possibility that benefits of opioid therapy might diminish or that risks might become more prominent over time, it is important that clinicians review expected benefits and risks of continued opioid therapy with patients periodically, at least every 3 months (see Recommendation 7).

### Opioid Selection, Dosage, Duration, Follow-Up, and Discontinuation

4. **When starting opioid therapy for chronic pain, clinicians should prescribe immediate-release opioids instead of extended-release/long-acting (ER/LA) opioids (recommendation category: A, evidence type: 4).**

ER/LA opioids include methadone, transdermal fentanyl, and extended-release versions of opioids such as oxycodone, oxymorphone, hydrocodone, and morphine. The clinical evidence review found a fair-quality study showing a higher risk for overdose among patients initiating treatment with ER/LA opioids than among those initiating treatment with immediate-release opioids (77). The clinical evidence review did not find evidence that continuous, time-scheduled use of ER/LA opioids is more effective or safer than intermittent use of immediate-release opioids or that time-scheduled use of ER/LA opioids reduces risks for opioid misuse or addiction (KQ3).

In 2014, the FDA modified the labeling for ER/LA opioid pain medications, noting serious risks and recommending that ER/LA opioids be reserved for “management of pain severe enough to require daily, around-the-clock, long-term opioid treatment” when “alternative treatment options (e.g., nonopioid analgesics or immediate-release opioids) are ineffective, not tolerated, or would be otherwise inadequate to provide sufficient management of pain” and not used as “as needed” pain relievers (121). FDA has also noted that some ER/LA opioids are only appropriate for opioid-tolerant patients, defined as patients who have received certain dosages of opioids (e.g., 60 mg daily of oral morphine, 30 mg daily of oral oxycodone, or equianalgesic dosages of other opioids) for at least 1 week (189). Time-scheduled opioid use can be associated with greater total average daily opioid dosage compared with intermittent, as-needed opioid use (contextual evidence review). In addition, experts indicated that there was not enough evidence to determine the safety of using immediate-release opioids for breakthrough pain when ER/LA opioids are used for chronic pain outside of active cancer pain, palliative care, or end-of-life care, and that this practice might be associated with dose escalation.

Abuse-deterrent technologies have been employed to prevent manipulation intended to defeat extended-release properties of ER/LA opioids and to prevent opioid use by unintended routes of administration, such as injection of oral opioids. As indicated in FDA guidance for industry on evaluation and labeling of abuse-deterrent opioids (190), although abuse-deterrent technologies are expected to make manipulation of opioids more difficult or less rewarding, they do not prevent...
opioid abuse through oral intake, the most common route of opioid abuse, and can still be abused by nonoral routes. The “abuse-deterrent” label does not indicate that there is no risk for abuse. No studies were found in the clinical evidence review assessing the effectiveness of abuse-deterrent technologies as a risk mitigation strategy for deterring or preventing abuse. In addition, abuse-deterrent technologies do not prevent unintentional overdose through oral intake. Experts agreed that recommendations could not be offered at this time related to use of abuse-deterrent formulations.

In comparing different ER/LA formulations, the clinical evidence review found inconsistent results for overdose risk with methadone versus other ER/LA opioids used for chronic pain (KQ3). The contextual evidence review found that methadone has been associated with disproportionate numbers of overdose deaths relative to the frequency with which it is prescribed for chronic pain. In addition, methadone is associated with cardiac arrhythmias along with QT prolongation on the electrocardiogram, and it has complicated pharmacokinetics and pharmacodynamics, including a long and variable half-life and peak respiratory depressant effect occurring later and lasting longer than peak analgesic effect. Experts noted that the pharmacodynamics of methadone are subject to more inter-individual variability than other opioids. In regard to other ER/LA opioid formulations, experts noted that the absorption and pharmacodynamics of transdermal fentanyl are complex, with gradually increasing serum concentration during the first part of the 72-hour dosing interval, as well as variable absorption based on factors such as external heat. In addition, the dosing of transdermal fentanyl in mcg/hour, which is not typical for a drug used by outpatients, can be confusing. Experts thought that these complexities might increase the risk for fatal overdose when methadone or transdermal fentanyl is prescribed to a patient who has not used it previously or by clinicians who are not familiar with its effects.

Experts agreed that for patients not already receiving opioids, clinicians should not initiate opioid treatment with ER/LA opioids and should not prescribe ER/LA opioids for intermittent use. ER/LA opioids should be reserved for severe, continuous pain and should be considered only for patients who have received immediate-release opioids daily for at least 1 week. When changing to an ER/LA opioid for a patient previously receiving a different immediate-release opioid, clinicians should consult product labeling and reduce total daily dosage to account for incomplete opioid cross-tolerance. Clinicians should use additional caution with ER/LA opioids and consider a longer dosing interval when prescribing to patients with renal or hepatic dysfunction because decreased clearance of drugs among these patients can lead to accumulation of drugs to toxic levels and persistence in the body for longer durations. Although there might be situations in which clinicians need to prescribe immediate-release and ER/LA opioids together (e.g., transitioning patients from ER/LA opioids to immediate-release opioids by temporarily using lower dosages of both), in general, avoiding the use of immediate-release opioids in combination with ER/LA opioids is preferable, given potentially increased risk and diminishing returns of such an approach for chronic pain.

When an ER/LA opioid is prescribed, using one with predictable pharmacokinetics and pharmacodynamics is preferred to minimize unintentional overdose risk. In particular, unusual characteristics of methadone and of transdermal fentanyl make safe prescribing of these medications for pain especially challenging.

- Methadone should not be the first choice for an ER/LA opioid. Only clinicians who are familiar with methadone’s unique risk profile and who are prepared to educate and closely monitor their patients, including risk assessment for QT prolongation and consideration of electrocardiographic monitoring, should consider prescribing methadone for pain. A clinical practice guideline that contains further guidance regarding methadone prescribing for pain has been published previously (191).
- Because dosing effects of transdermal fentanyl are often misunderstood by both clinicians and patients, only clinicians who are familiar with the dosing and absorption properties of transdermal fentanyl and are prepared to educate their patients about its use should consider prescribing it.

5. When opioids are started, clinicians should prescribe the lowest effective dosage. Clinicians should use caution when prescribing opioids at any dosage, should carefully reassess evidence of individual benefits and risks when considering increasing dosage to ≥50 morphine milligram equivalents (MME)/day, and should avoid increasing dosage to ≥90 MME/day or carefully justify a decision to titrate dosage to ≥90 MME/day (recommendation category: A, evidence type: 3).

Benefits of high-dose opioids for chronic pain are not established. The clinical evidence review found only one study (84) addressing effectiveness of dose titration for outcomes related to pain control, function, and quality of life (KQ3). This randomized trial found no difference in pain or function between a more liberal opioid dose escalation strategy and maintenance of current dosage. (These groups were prescribed average dosages of 52 and 40 MME/day, respectively, at the end of the trial.) At the same time, risks for serious harms
related to opioid therapy increase at higher opioid dosage. The clinical evidence review found that higher opioid dosages are associated with increased risks for motor vehicle injury, opioid use disorder, and overdose (KQ2). The clinical and contextual evidence reviews found that opioid overdose risk increases in a dose-response manner, that dosages of 50–100 MME/day have been found to increase risks for opioid overdose by factors of 1.9 to 4.6 compared with dosages of 1–20 MME/day, and that dosages ≥100 MME/day are associated with increased risks of overdose 2.0–8.9 times the risk at 1–20 MME/day. In a national sample of Veterans Health Administration patients with chronic pain who were prescribed opioids, mean prescribed opioid dosage among patients who died from opioid overdose was 98 MME (median 60 MME) compared with mean prescribed opioid dosage of 48 MME (median 25 MME) among patients not experiencing fatal overdose (127).

The contextual evidence review found that although there is not a single dosage threshold below which overdose risk is eliminated, holding dosages <50 MME/day would likely reduce risk among a large proportion of patients who would experience fatal overdose at higher prescribed dosages. Experts agreed that lower dosages of opioids reduce the risk for overdose, but that a single dosage threshold for safe opioid use could not be identified. Experts noted that daily opioid dosages close to or greater than 100 MME/day are associated with significant risks, that dosages <50 MME/day are safer than dosages of 50–100 MME/day, and that dosages <20 MME/day are safer than dosages of 20–50 MME/day. One expert thought that a specific dosage at which the benefit/risk ratio of opioid therapy decreases could not be identified. Most experts agreed that, in general, increasing dosages to 50 or more MME/day increases overdose risk without necessarily adding benefits for pain control or function and that clinicians should carefully reassess evidence of individual benefits and risks when considering increasing opioid dosages to ≥50 MME/day. Most experts also agreed that opioid dosages should not be increased to ≥90 MME/day without careful justification based on diagnosis and on individualized assessment of benefits and risks.

When opioids are used for chronic pain outside of active cancer, palliative, and end-of-life care, clinicians should start opioids at the lowest possible effective dosage (the lowest starting dosage on product labeling for patients not already taking opioids and according to product labeling guidance regarding tolerance for patients already taking opioids). Clinicians should use additional caution when initiating opioids for patients aged ≥65 years and for patients with renal or hepatic insufficiency because decreased clearance of drugs in these patients can result in accumulation of drugs to toxic levels. Clinicians should use caution when increasing opioid dosages and increase dosage by the smallest practical amount because overdose risk increases with increases in opioid dosage. Although there is limited evidence to recommend specific intervals for dosage titration, a previous guideline recommended waiting at least five half-lives before increasing dosage and waiting at least a week before increasing dosage of methadone to make sure that full effects of the previous dosage are evident (31). Clinicians should re-evaluate patients after increasing dosage for changes in pain, function, and risk for harm (see Recommendation 7). Before increasing total opioid dosage to ≥50 MME/day, clinicians should re-evaluate whether opioid treatment is meeting the patient’s treatment goals (see Recommendation 2). If a patient’s opioid dosage for all sources of opioids combined reaches or exceeds 50 MME/day, clinicians should implement additional precautions, including increased frequency of follow-up (see Recommendation 7) and considering offering naloxone and overdose prevention education to both patients and the patients’ household members (see Recommendation 8). Clinicians should avoid increasing opioid dosages to ≥90 MME/day or should carefully justify a decision to increase dosage to ≥90 MME/day based on individualized assessment of benefits and risks and weighing factors such as diagnosis, incremental benefits for pain and function relative to harms as dosages approach 90 MME/day, other treatments and effectiveness, and recommendations based on consultation with pain specialists. If patients do not experience improvement in pain and function at ≥90 MME/day, or if there are escalating dosage requirements, clinicians should discuss other approaches to pain management with the patient, consider working with patients to taper opioids to a lower dosage or to taper and discontinue opioids (see Recommendation 7), and consider consulting a pain specialist. Some states require clinicians to implement clinical protocols at specific dosage levels. For example, before increasing long-term opioid therapy dosage to >120 MME/day, clinicians in Washington state must obtain consultation from a pain specialist who agrees that this is indicated and appropriate (30). Clinicians should be aware of rules related to MME thresholds and associated clinical protocols established by their states.

Established patients already taking high dosages of opioids, as well as patients transferring from other clinicians, might consider the possibility of opioid dosage reduction to be anxiety-provoking, and tapering opioids can be especially challenging after years on high dosages because of physical and psychological dependence. However, these patients should be offered the opportunity to re-evaluate their continued use of opioids at high dosages in light of recent evidence regarding the association of opioid dosage and overdose risk. Clinicians should explain in a nonjudgmental manner to patients already taking high opioid dosages (≥90 MME/day) that there is
now an established body of scientific evidence showing that overdose risk is increased at higher opioid dosages. Clinicians should empathically review benefits and risks of continued high-dose opioid therapy and should offer to work with the patient to taper opioids to safer dosages. For patients who agree to taper opioids to lower dosages, clinicians should collaborate with the patient on a tapering plan (see Recommendation 7). Experts noted that patients tapering opioids after taking them for years may require very slow opioid tapers as well as pauses in the taper to allow gradual accommodation to lower opioid dosages. Clinicians should remain alert to signs of anxiety, depression, and opioid use disorder (see Recommendations 8 and 12) that might be unmasked by an opioid taper and arrange for management of these co-morbidities. For patients agreeing to taper to lower opioid dosages as well as for those remaining on high opioid dosages, clinicians should establish goals with the patient for continued opioid therapy (see Recommendation 2), maximize pain treatment with nonpharmacologic and nonopioid pharmacologic treatments as appropriate (see Recommendation 1), and consider consulting a pain specialist as needed to assist with pain management.

6. Long-term opioid use often begins with treatment of acute pain. When opioids are used for acute pain, clinicians should prescribe the lowest effective dose of immediate-release opioids and should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids. Three days or less will often be sufficient; more than seven days will rarely be needed (recommendation category: A, evidence type: 4).

The clinical evidence review found that opioid use for acute pain (i.e., pain with abrupt onset and caused by an injury or other process that is not ongoing) is associated with long-term opioid use, and that a greater amount of early opioid exposure is associated with greater risk for long-term use (KQ5). Several guidelines on opioid prescribing for acute pain from emergency departments (192–194) and other settings (195,196) have recommended prescribing ≤3 days of opioids in most cases, whereas others have recommended ≤7 days (197) or <14 days (30). Because physical dependence on opioids is an expected physiologic response in patients exposed to opioids for more than a few days (contextual evidence review), limiting days of opioids prescribed also should minimize the need to taper opioids to prevent distressing or unpleasant withdrawal symptoms. Experts noted that more than a few days of exposure to opioids significantly increases hazards, that each day of unnecessary opioid use increases likelihood of physical dependence without adding benefit, and that prescriptions with fewer days’ supply will minimize the number of pills available for unintentional or intentional diversion.

Experts agreed that when opioids are needed for acute pain, clinicians should prescribe opioids at the lowest effective dose and for no longer than the expected duration of pain severe enough to require opioids to minimize unintentional initiation of long-term opioid use. The lowest effective dose can be determined using product labeling as a starting point with calibration as needed based on the severity of pain and on other clinical factors such as renal or hepatic insufficiency (see Recommendation 8). Experts thought, based on clinical experience regarding anticipated duration of pain severe enough to require an opioid, that in most cases of acute pain not related to surgery or trauma, a ≤3 days’ supply of opioids will be sufficient. For example, in one study of the course of acute low back pain (not associated with malignancies, infections, spondylarthropathies, fractures, or neurological signs) in a primary care setting, there was a large decrease in pain until the fourth day after treatment with paracetamol, with smaller decreases thereafter (198). Some experts thought that because some types of acute pain might require more than 3 days of opioid treatment, it would be appropriate to recommend a range of ≤3–5 days or ≤3–7 days when opioids are needed. Some experts thought that a range including 7 days was too long given the expected course of severe acute pain for most acute pain syndromes seen in primary care.

Acute pain can often be managed without opioids. It is important to evaluate the patient for reversible causes of pain, for underlying etiologies with potentially serious sequelae, and to determine appropriate treatment. When the diagnosis and severity of nontraumatic, nonsurgical acute pain are reasonably assumed to warrant the use of opioids, clinicians should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids, often 3 days or less, unless circumstances clearly warrant additional opioid therapy. More than 7 days will rarely be needed. Opioid treatment for post-surgical pain is outside the scope of this guideline but has been addressed elsewhere (30). Clinicians should not prescribe additional opioids to patients “just in case” pain continues longer than expected. Clinicians should re-evaluate the subset of patients who experience severe acute pain that continues longer than the expected duration to confirm or revise the initial diagnosis and to adjust management accordingly. Given longer half-lives and longer duration of effects (e.g., respiratory depression) with ER/LA opioids such as methadone, fentanyl patches, or extended release versions of opioids such as oxycodone, oxymorphone, or morphine, clinicians should not prescribe ER/LA opioids for the treatment of acute pain.
7. Clinicians should evaluate benefits and harms with patients within 1 to 4 weeks of starting opioid therapy for chronic pain or dose escalation. Clinicians should evaluate benefits and harms of continued therapy with patients every 3 months or more frequently. If benefits do not outweigh harms of continued opioid therapy, clinicians should optimize other therapies and work with patients to taper opioids to lower dosages or to taper and discontinue opioids (recommendation category: A, evidence type: 4).

Although the clinical evidence review did not find studies evaluating the effectiveness of more frequent monitoring intervals (KQ4), it did find that continuing opioid therapy for 3 months substantially increases risk for opioid use disorder (KQ2); therefore, follow-up earlier than 3 months might be necessary to provide the greatest opportunity to prevent the development of opioid use disorder. In addition, risk for overdose associated with ER/LA opioids might be particularly high during the first 2 weeks of treatment (KQ3).

The contextual evidence review found that patients who do not have pain relief with opioids at 1 month are unlikely to experience pain relief with opioids at 6 months. Although evidence is insufficient to determine at what point within the first 3 months of opioid therapy the risks for opioid use disorder increase, reassessment of pain and function within 1 month of initiating opioids provides an opportunity to minimize risks of long-term opioid use by discontinuing opioids among patients not receiving a clear benefit from these medications. Experts noted that risks for opioid overdose are greatest during the first 3–7 days after opioid initiation or increase in dosage, particularly when methadone or transdermal fentanyl are prescribed; that follow-up within 3 days is appropriate when initiating or increasing the dosage of methadone; and that follow-up within 1 week might be appropriate when initiating or increasing the dosage of other ER/LA opioids.

Clinicians should evaluate patients to assess benefits and harms of opioids within 1 to 4 weeks of starting long-term opioid therapy or dose escalation. Clinicians should consider follow-up intervals within the lower end of this range when ER/LA opioids are started or increased or when total daily opioid dosage is ≥50 MME/day. Shorter follow-up intervals (within 3 days) should be strongly considered when starting or increasing the dosage of methadone. At follow up, clinicians should assess benefits in function, pain control, and quality of life using tools such as the three-item “Pain average, interference with Enjoyment of life, and interference with General activity” (PEG) Assessment Scale (186) and/or asking patients about progress toward functional goals that have meaning for them (see Recommendation 2). Clinicians should also ask patients about common adverse effects such as constipation and drowsiness (see Recommendation 3), as well as asking about and assessing for effects that might be early warning signs for more serious problems such as overdose (e.g., sedation or slurred speech) or opioid use disorder (e.g., craving, wanting to take opioids in greater quantities or more frequently than prescribed, or difficulty controlling use). Clinicians should ask patients about their preferences for continuing opioids, given their effects on pain and function relative to any adverse effects experienced.

Because of potential changes in the balance of benefits and risks of opioid therapy over time, clinicians should regularly reassess all patients receiving long-term opioid therapy, including patients who are new to the clinician but on long-term opioid therapy, at least every 3 months. At reassessment, clinicians should determine whether opioids continue to meet treatment goals, including sustained improvement in pain and function, whether the patient has experienced common or serious adverse events or early warning signs of serious adverse events, signs of opioid use disorder (e.g., difficulty controlling use, work or family problems related to opioid use), whether benefits of opioids continue to outweigh risks, and whether opioid dosage can be reduced or opioids can be discontinued.

Ideally, these reassessments would take place in person and be conducted by the prescribing clinician. In practice contexts where virtual visits are part of standard care (e.g., in remote areas where distance or other issues make follow-up visits challenging), follow-up assessments that allow the clinician to communicate with and observe the patient through video and audio could be conducted, with in-person visits occurring at least once per year. Clinicians should re-evaluate patients who are exposed to greater risk of opioid use disorder or overdose (e.g., patients with depression or other mental health conditions, a history of substance use disorder, a history of overdose, taking ≥50 MME/day, or taking other central nervous system depressants with opioids) more frequently than every 3 months. If clinically meaningful improvements in pain and function are not sustained, if patients are taking high-risk regimens (e.g., dosages ≥50 MME/day or opioids combined with benzodiazepines) without evidence of benefit, if patients believe benefits no longer outweigh risks or if they request dosage reduction or discontinuation, or if patients experience overdose or other serious adverse events (e.g., an event leading to hospitalization or disability) or warning signs of serious adverse events, clinicians should work with patients to reduce opioid dosage or to discontinue opioids when possible. Clinicians should maximize pain treatment with nonpharmacologic and nonopioid pharmacologic treatments as appropriate (see Recommendation 1) and consider consulting a pain specialist as needed to assist with pain management.
Considerations for Tapering Opioids

Although the clinical evidence review did not find high-quality studies comparing the effectiveness of different tapering protocols for use when opioid dosage is reduced or opioids are discontinued (KQ3), tapers reducing weekly dosage by 10%–50% of the original dosage have been recommended by other clinical guidelines (199), and a rapid taper over 2–3 weeks has been recommended in the case of a severe adverse event such as overdose (30). Experts noted that tapers slower than 10% per week (e.g., 10% per month) also might be appropriate and better tolerated than more rapid tapers, particularly when patients have been taking opioids for longer durations (e.g., for years). Opioid withdrawal during pregnancy has been associated with spontaneous abortion and premature labor.

When opioids are reduced or discontinued, a taper slow enough to minimize symptoms and signs of opioid withdrawal (e.g., drug craving, anxiety, insomnia, abdominal pain, vomiting, diarrhea, diaphoresis, mydriasis, tremor, tachycardia, or piloerection) should be used. A decrease of 10% of the original dose per week is a reasonable starting point; experts agreed that tapering plans may be individualized based on patient goals and concerns. Experts noted that at times, tapers might have to be paused and restarted again when the patient is ready and might have to be slowed once patients reach low dosages. Tapers may be considered successful as long as the patient is making progress. Once the smallest available dose is reached, the interval between doses can be extended. Opioids may be stopped when taken less frequently than once a day. More rapid tapers might be needed for patient safety under certain circumstances (e.g., for patients who have experienced overdose on their current dosage). Ultrarapid detoxification under anesthesia is associated with substantial risks, including death, and should not be used (200). Clinicians should access appropriate expertise if considering tapering opioids during pregnancy because of possible risk to the pregnant patient and to the fetus if the patient goes into withdrawal. Patients who are not taking opioids (including patients who are diverting all opioids they obtain) do not require tapers. Clinicians should discuss with patients undergoing tapering the increased risk for overdose on abrupt return to a previously prescribed higher dose. Primary care clinicians should collaborate with mental health providers and with other specialists as needed to optimize nonopioid pain management (see Recommendation 1), as well as psychosocial support for anxiety related to the taper. More detailed guidance on tapering, including management of withdrawal symptoms has been published previously (30,201). If a patient exhibits signs of opioid use disorder, clinicians should offer or arrange for treatment of opioid use disorder (see Recommendation 12) and consider offering naloxone for overdose prevention (see Recommendation 8).

Assessing Risk and Addressing Harms of Opioid Use

8. Before starting and periodically during continuation of opioid therapy, clinicians should evaluate risk factors for opioid-related harms. Clinicians should incorporate into the management plan strategies to mitigate risk, including considering offering naloxone when factors that increase risk for opioid overdose, such as history of overdose, history of substance use disorder, higher opioid dosages (≥50 MME/day), or concurrent benzodiazepine use, are present (recommendation category: A, evidence type: 4).

The clinical evidence review found insufficient evidence to determine how harms of opioids differ depending on patient demographics or patient comorbidities (KQ2). However, based on the contextual evidence review and expert opinion, certain risk factors are likely to increase susceptibility to opioid-associated harms and warrant incorporation of additional strategies into the management plan to mitigate risk. Clinicians should assess these risk factors periodically, with frequency varying by risk factor and patient characteristics. For example, factors that vary more frequently over time, such as alcohol use, require more frequent follow up. In addition, clinicians should consider offering naloxone, re-evaluating patients more frequently (see Recommendation 7), and referring to pain and/or behavioral health specialists when factors that increase risk for harm, such as history of overdose, history of substance use disorder, higher dosages of opioids (≥50 MME/day), and concurrent use of benzodiazepines with opioids, are present.

Patients with Sleep-Disordered Breathing, Including Sleep Apnea

Risk factors for sleep-disordered breathing include congestive heart failure, and obesity. Experts noted that careful monitoring and cautious dose titration should be used if opioids are prescribed for patients with mild sleep-disordered breathing. Clinicians should avoid prescribing opioids to patients with moderate or severe sleep-disordered breathing whenever possible to minimize risks for opioid overdose (contextual evidence review).

Pregnant Women

Opioids used in pregnancy might be associated with additional risks to both mother and fetus. Some studies have shown an association of opioid use in pregnancy with stillbirth, poor fetal growth, pre-term delivery, and birth defects (contextual evidence review). Importantly, in some cases, opioid use during pregnancy leads to neonatal opioid withdrawal syndrome. Clinicians and patients together should carefully weigh risks and benefits when making decisions
about whether to initiate opioid therapy for chronic pain during pregnancy. In addition, before initiating opioid therapy for chronic pain for reproductive-age women, clinicians should discuss family planning and how long-term opioid use might affect any future pregnancy. For pregnant women already receiving opioids, clinicians should access appropriate expertise if considering tapering opioids because of possible risk to the pregnant patient and to the fetus if the patient goes into withdrawal (see Recommendation 7). For pregnant women with opioid use disorder, medication-assisted therapy with buprenorphine or methadone has been associated with improved maternal outcomes and should be offered (202) (see Recommendation 12). Clinicians caring for pregnant women receiving opioids for pain or receiving buprenorphine or methadone for opioid use disorder should arrange for delivery at a facility prepared to monitor, evaluate for, and treat neonatal opioid withdrawal syndrome. In instances when travel to such a facility would present an undue burden on the pregnant woman, it is appropriate to deliver locally, monitor and evaluate the newborn for neonatal opioid withdrawal syndrome, and transfer the newborn for additional treatment if needed. Neonatal toxicity and death have been reported in breast-feeding infants whose mothers are taking codeine (contextual evidence review); previous guidelines have recommended that codeine be avoided whenever possible among mothers who are breast feeding and, if used, should be limited to the lowest possible dose and to a 4-day supply (203).

Patients with Mental Health Conditions

Because psychological distress frequently interferes with improvement of pain and function in patients with chronic pain, using validated instruments such as the Generalized Anxiety Disorder (GAD)-7 and the Patient Health Questionnaire (PHQ)-9 or the PHQ-4 to assess for anxiety, post-traumatic stress disorder, and/or depression (205), might help clinicians improve overall pain treatment outcomes. Experts noted that clinicians should use additional caution and increased monitoring (see Recommendation 7) to lessen the increased risk for opioid use disorder among patients with mental health conditions (including depression, anxiety disorders, and PTSD), as well as increased risk for drug overdose among patients with depression. Previous guidelines have noted that opioid therapy should not be initiated during acute psychiatric instability or uncontrolled suicide risk, and that clinicians should consider behavioral health specialist consultation for any patient with a history of suicide attempt or psychiatric disorder (31). In addition, patients with anxiety disorders and other mental health conditions are more likely to receive benzodiazepines, which can exacerbate opioid-induced respiratory depression and increase risk for overdose (see Recommendation 11). Clinicians should ensure that treatment for depression and other mental health conditions is optimized, consulting with behavioral health specialists when needed. Treatment for depression can improve pain symptoms as well as depression and might decrease overdose risk (contextual evidence review). For treatment of chronic pain in patients with depression, clinicians should strongly consider using tricyclic or SNRI antidepressants for analgesic as well as antidepressant effects if these medications are not otherwise contraindicated (see Recommendation 1).
Patients with Substance Use Disorder

Illicit drugs and alcohol are listed as contributory factors on a substantial proportion of death certificates for opioid-related overdose deaths (contextual evidence review). Previous guidelines have recommended screening or risk assessment tools to identify patients at higher risk for misuse or abuse of opioids. However, the clinical evidence review found that currently available risk-stratification tools (e.g., Opioid Risk Tool, Screener and Opioid Assessment for Patients with Pain Version 1, SOAPP-R, and Brief Risk Interview) show insufficient accuracy for classification of patients as at low or high risk for abuse or misuse (KQ4). Clinicians should always exercise caution when considering or prescribing opioids for any patient with chronic pain outside of active cancer, palliative, and end-of-life care and should not overestimate the ability of these tools to rule out risks from long-term opioid therapy.

Clinicians should ask patients about their drug and alcohol use. Single screening questions can be used (206). For example, the question “How many times in the past year have you used an illegal drug or used a prescription medication for nonmedical reasons?” (with an answer of one or more considered positive) was found in a primary care setting to be 100% sensitive and 73.5% specific for the detection of a drug use disorder compared with a standardized diagnostic interview (207). Validated screening tools such as the Drug Abuse Screening Test (DAST) (208) and the Alcohol Use Disorders Identification Test (AUDIT) (209) can also be used. Clinicians should use PDMP data (see Recommendation 9) and drug testing (see Recommendation 10) as appropriate to assess for concurrent substance use that might place patients at higher risk for opioid use disorder and overdose. Clinicians should also provide specific counseling on increased risks for overdose when opioids are combined with other drugs or alcohol (see Recommendation 3) and ensure that patients receive effective treatment for substance use disorders when needed (see Recommendation 12).

The clinical evidence review found insufficient evidence to determine how harms of opioids differ depending on past or current substance use disorder (KQ2), although a history of substance use disorder was associated with misuse. Similarly, based on contextual evidence, patients with drug or alcohol use disorders are likely to experience greater risks for opioid use disorder and overdose than persons without these conditions. If clinicians consider opioid therapy for chronic pain outside of active cancer, palliative, and end-of-life care for patients with drug or alcohol use disorders, they should discuss increased risks for opioid use disorder and overdose with patients, carefully consider whether benefits of opioids outweigh increased risks, and incorporate strategies to mitigate risk into the management plan, such as considering offering naloxone (see Offering Naloxone to Patients When Factors That Increase Risk for Opioid-Related Harms Are Present) and increasing frequency of monitoring (see Recommendation 7) when opioids are prescribed. Because pain management in patients with substance use disorder can be complex, clinicians should consider consulting substance use disorder specialists and pain specialists regarding pain management for persons with active or recent past history of substance abuse. Experts also noted that clinicians should communicate with patients’ substance use disorder treatment providers if opioids are prescribed.

Patients with Prior Nonfatal Overdose

Although studies were not identified that directly addressed the risk for overdose among patients with prior nonfatal overdose who are prescribed opioids, based on clinical experience, experts thought that prior nonfatal overdose would substantially increase risk for future nonfatal or fatal opioid overdose. If patients experience nonfatal opioid overdose, clinicians should work with them to reduce opioid dosage and to discontinue opioids when possible (see Recommendation 7). If clinicians continue opioid therapy for chronic pain outside of active cancer, palliative, and end-of-life care in patients with prior opioid overdose, they should discuss increased risks for overdose with patients, carefully consider whether benefits of opioids outweigh substantial risks, and incorporate strategies to mitigate risk into the management plan, such as considering offering naloxone (see Offering Naloxone to Patients When Factors That Increase Risk for Opioid-Related Harms Are Present) and increasing frequency of monitoring (see Recommendation 7) when opioids are prescribed.

Offering Naloxone to Patients When Factors That Increase Risk for Opioid-Related Harms Are Present

Naloxone is an opioid antagonist that can reverse severe respiratory depression; its administration by lay persons, such as friends and family of persons who experience opioid overdose, can save lives. Naloxone precipitates acute withdrawal among patients physically dependent on opioids. Serious adverse effects, such as pulmonary edema, cardiovascular instability, and seizures, have been reported but are rare at doses consistent with labeled use for opioid overdose (210). The contextual evidence review did not find any studies on effectiveness of prescribing naloxone for overdose prevention among patients prescribed opioids for chronic pain. However, there is evidence for effectiveness of naloxone provision in preventing opioid-related overdose death at the community level through community-based distribution (e.g., through overdose education and naloxone distribution programs in community service agencies) to persons at risk for overdose.
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(mostly due to illicit opiate use), and it is plausible that effectiveness would be observed when naloxone is provided in the clinical setting as well. Experts agreed that it is preferable not to initiate opioid treatment when factors that increase risk for opioid-related harms are present. Opinions diverged about the likelihood of naloxone being useful to patients and the circumstances under which it should be offered. However, most experts agreed that clinicians should consider offering naloxone when prescribing opioids to patients at increased risk for overdose, including patients with a history of overdose, patients with a history of substance use disorder, patients taking benzodiazepines with opioids (see Recommendation 11), patients at risk for returning to a high dose to which they are no longer tolerant (e.g., patients recently released from prison), and patients taking higher dosages of opioids (≥50 MME/day). Practices should provide education on overdose prevention and naloxone use to patients receiving naloxone prescriptions and to members of their households. Experts noted that naloxone co-prescribing can be facilitated by clinics or practices with resources to provide naloxone training and by collaborative practice models with pharmacists. Resources for prescribing naloxone in primary care settings can be found through Prescribe to Prevent at http://prescribetoprevent.org.

9. Clinicians should review the patient's history of controlled substance prescriptions using state prescription drug monitoring program (PDMP) data to determine whether the patient is receiving opioid dosages or dangerous combinations that put him or her at high risk for overdose. Clinicians should review PDMP data when starting opioid therapy for chronic pain and periodically during opioid therapy for chronic pain, ranging from every prescription to every 3 months (recommendation category: A, evidence type: 4).

PDMPs are state-based databases that collect information on controlled prescription drugs dispensed by pharmacies in most states and, in select states, by dispensing physicians as well. In addition, some clinicians employed by the federal government, including some clinicians in the Indian Health Care Delivery System, are not licensed in the states where they practice, and do not have access to PDMP data. Certain states require clinicians to review PDMP data prior to writing each opioid prescription (see state-level PDMP-related policies on the National Alliance for Model State Drug Laws website at http://www.namsdl.org/prescription-monitoring-programs.cfm). The clinical evidence review did not find studies evaluating the effectiveness of PDMPs on outcomes related to overdose, addiction, abuse, or misuse (KQ4). However, even though evidence is limited on the effectiveness of PDMP implementation at the state level on prescribing and mortality outcomes (28), the contextual evidence review found that most fatal overdoses were associated with patients receiving opioids from multiple prescribers and/or with patients receiving high total daily opioid dosages; information on both of these risk factors for overdose are available to prescribers in the PDMP. PDMP data also can be helpful when patient medication history is not otherwise available (e.g., for patients from other locales) and when patients transition care to a new clinician. The contextual evidence review also found that PDMP information could be used in a way that is harmful to patients. For example, it has been used to dismiss patients from clinician practices (211), which might adversely affect patient safety.

The contextual review found variation in state policies that affect timeliness of PDMP data (and therefore benefits of reviewing PDMP data) as well as time and workload for clinicians in accessing PDMP data. In states that permit delegating access to other members of the health care team, workload for prescribers can be reduced. These differences might result in a different balance of benefits to clinician workload in different states. Experts agreed that PDMPs are useful tools that should be consulted when starting a patient on opioid therapy and periodically during long-term opioid therapy. However, experts disagreed on how frequently clinicians should check the PDMP during long-term opioid therapy, given PDMP access issues and the lag time in reporting in some states. Most experts agreed that PDMP data should be reviewed every 3 months or more frequently during long-term opioid therapy. A minority of experts noted that, given the current burden of accessing PDMP data in some states and the lack of evidence surrounding the most effective interval for PDMP review to improve patient outcomes, annual review of PDMP data during long-term opioid therapy would be reasonable when factors that increase risk for opioid-related harms are not present.

Clinicians should review PDMP data for opioids and other controlled medications patients might have received from additional prescribers to determine whether a patient is receiving high total opioid dosages or dangerous combinations (e.g., opioids combined with benzodiazepines) that put him or her at high risk for overdose. Ideally, PDMP data should be reviewed before every opioid prescription. This is recommended in all states with well-functioning PDMPs and where PDMP access policies make this practicable (e.g., clinician and delegate access permitted), but it is not currently possible in states without functional PDMPs or in those that do not permit certain prescribers to access them. As vendors and practices facilitate integration of PDMP information into regular clinical workflow (e.g., data made available in electronic health records), clinicians’ ease of access in reviewing PDMP data is expected to improve.
In addition, improved timeliness of PDMP data will improve their value in identifying patient risks.

If patients are found to have high opioid dosages, dangerous combinations of medications, or multiple controlled substance prescriptions written by different clinicians, several actions can be taken to augment clinicians’ abilities to improve patient safety:

- Clinicians should discuss information from the PDMP with their patient and confirm that the patient is aware of the additional prescriptions. Occasionally, PDMP information can be incorrect (e.g., if the wrong name or birthdate has been entered, the patient uses a nickname or maiden name, or another person has used the patient’s identity to obtain prescriptions).
- Clinicians should discuss safety concerns, including increased risk for respiratory depression and overdose, with patients found to be receiving opioids from more than one prescriber or receiving medications that increase risk when combined with opioids (e.g., benzodiazepines) and consider offering naloxone (see Recommendation 8).
- Clinicians should avoid prescribing opioids and benzodiazepines concurrently whenever possible. Clinicians should communicate with others managing the patient to discuss the patient’s needs, prioritize patient goals, weigh risks of concurrent benzodiazepine and opioid exposure, and coordinate care (see Recommendation 11).
- Clinicians should calculate the total MME/day for concurrent opioid prescriptions to help assess the patient’s overdose risk (see Recommendation 5). If patients are found to be receiving high total daily dosages of opioids, clinicians should discuss their safety concerns with the patient, consider tapering to a safer dosage (see Recommendations 5 and 7), and consider offering naloxone (see Recommendation 8).
- Clinicians should discuss safety concerns with other clinicians who are prescribing controlled substances for their patient. Ideally clinicians should first discuss concerns with their patient and inform him or her that they plan to coordinate care with the patient’s other prescribers to improve the patient’s safety.
- Clinicians should consider the possibility of a substance use disorder and discuss concerns with their patient (see Recommendation 12).
- If clinicians suspect their patient might be sharing or selling opioids and not taking them, clinicians should consider urine drug testing to assist in determining whether opioids can be discontinued without causing withdrawal (see Recommendations 7 and 10). A negative drug test for prescribed opioids might indicate the patient is not taking prescribed opioids, although clinicians should consider other possible reasons for this test result (see Recommendation 10).

Experts agreed that clinicians should not dismiss patients from their practice on the basis of PDMP information. Doing so can adversely affect patient safety, could represent patient abandonment, and could result in missed opportunities to provide potentially lifesaving information (e.g., about risks of opioids and overdose prevention) and interventions (e.g., safer prescriptions, nonopioid pain treatment [see Recommendation 1], naloxone [see Recommendation 8], and effective treatment for substance use disorder [see Recommendation 12]).

10. When prescribing opioids for chronic pain, clinicians should use urine drug testing before starting opioid therapy and consider urine drug testing at least annually to assess for prescribed medications as well as other controlled prescription drugs and illicit drugs (recommendation category: B, evidence type: 4).

Concurrent use of opioid pain medications with other opioid pain medications, benzodiazepines, or heroin can increase patients’ risk for overdose. Urine drug tests can provide information about drug use that is not reported by the patient. In addition, urine drug tests can assist clinicians in identifying when patients are not taking opioids prescribed for them, which might in some cases indicate diversion or other clinically important issues such as difficulties with adverse effects. Urine drug tests do not provide accurate information about how much or what dose of opioids or other drugs a patient took. The clinical evidence review did not find studies evaluating the effectiveness of urine drug screening for risk mitigation during opioid prescribing for pain (KQ4). The contextual evidence review found that urine drug testing can provide useful information about patients assumed not to be using unreported drugs. Urine drug testing results can be subject to misinterpretation and might sometimes be associated with practices that might harm patients (e.g., stigmatization, inappropriate termination from care). Routine use of urine drug tests with standardized policies at the practice or clinic level might destigmatize their use. Although random drug testing also might destigmatize urine drug testing, experts thought that truly random testing was not feasible in clinical practice. Some clinics obtain a urine specimen at every visit, but only send it for testing on a random schedule. Experts noted that in addition to direct costs of urine drug testing, which often are not covered fully by insurance and can be a burden for patients, clinician time is needed to interpret, confirm, and communicate results.

Experts agreed that prior to starting opioids for chronic pain and periodically during opioid therapy, clinicians should
use urine drug testing to assess for prescribed opioids as well as other controlled substances and illicit drugs that increase risk for overdose when combined with opioids, including nonprescribed opioids, benzodiazepines, and heroin. There was some difference of opinion among experts as to whether this recommendation should apply to all patients, or whether this recommendation should entail individual decision making with different choices for different patients based on values, preferences, and clinical situations. While experts agreed that clinicians should use urine drug testing before initiating opioid therapy for chronic pain, they disagreed on how frequently urine drug testing should be conducted during long-term opioid therapy. Most experts agreed that urine drug testing at least annually for all patients was reasonable. Some experts noted that this interval might be too long in some cases and too short in others, and that the follow-up interval should be left to the discretion of the clinician. Previous guidelines have recommended more frequent urine drug testing in patients thought to be at higher risk for substance use disorder (30). However, experts thought that predicting risk prior to urine drug testing is challenging and that currently available tools do not allow clinicians to reliably identify patients who are at low risk for substance use disorder.

In most situations, initial urine drug testing can be performed with a relatively inexpensive immunoassay panel for commonly prescribed opioids and illicit drugs. Patients prescribed less commonly used opioids might require specific testing for those agents. The use of confirmatory testing adds substantial costs and should be based on the need to detect specific opioids that cannot be identified on standard immunoassays or on the presence of unexpected urine drug test results. Clinicians should be familiar with the drugs included in urine drug testing panels used in their practice and should understand how to interpret results for these drugs. For example, a positive “opiates” immunoassay detects morphine, which might reflect patient use of morphine, codeine, or heroin, but this immunoassay does not detect synthetic opioids (e.g., fentanyl or methadone) and might not detect semisynthetic opioids (e.g., oxycodone). However, many laboratories use an oxycodone immunoassay that detects oxycodone and oxymorphone. In some cases, positive results for specific opioids might reflect metabolites from opioids the patient is taking and might not mean the patient is taking the specific opioid for which the test was positive. For example, hydromorphone is a metabolite of hydrocodone, and oxymorphone is a metabolite of oxycodone. Detailed guidance on interpretation of urine drug test results, including which tests to order and expected results, drug detection time in urine, drug metabolism, and other considerations has been published previously (30). Clinicians should not test for substances for which results would not affect patient management or for which implications for patient management are unclear. For example, experts noted that there might be uncertainty about the clinical implications of a positive urine drug test for tetrahydrcannabinol (THC). In addition, restricting confirmatory testing to situations and substances for which results can reasonably be expected to affect patient management can reduce costs of urine drug testing, given the substantial costs associated with confirmatory testing methods. Before ordering urine drug testing, clinicians should have a plan for responding to unexpected results. Clinicians should explain to patients that urine drug testing is intended to improve their safety and should also explain expected results (e.g., presence of prescribed medication and absence of drugs, including illicit drugs, not reported by the patient). Clinicians should ask patients about use of prescribed and other drugs and ask whether there might be unexpected results. This will provide an opportunity for patients to provide information about changes in their use of prescribed opioids or other drugs. Clinicians should discuss unexpected results with the local laboratory or toxicologist and with the patient. Discussion with patients prior to specific confirmatory testing can sometimes yield a candid explanation of why a particular substance is present or absent and obviate the need for expensive confirmatory testing on that visit. For example, a patient might explain that the test is negative for prescribed opioids because she felt opioids were no longer helping and discontinued them. If unexpected results are not explained, a confirmatory test using a method selective enough to differentiate specific opioids and metabolites (e.g., gas or liquid chromatography/mass spectrometry) might be warranted to clarify the situation.

Clinicians should use unexpected results to improve patient safety (e.g., change in pain management strategy [see Recommendation 1], tapering or discontinuation of opioids [see Recommendation 7], more frequent re-evaluation [see Recommendation 1], offering naloxone [see Recommendation 8], or referral for treatment for substance use disorder [see Recommendation 12], all as appropriate). If tests for prescribed opioids are repeatedly negative, confirming that the patient is not taking the prescribed opioid, clinicians can discontinue the prescription without a taper. Clinicians should not dismiss patients from care based on a urine drug test result because this could constitute patient abandonment and could have adverse consequences for patient safety, potentially including the patient obtaining opioids from alternative sources and the clinician missing opportunities to facilitate treatment for substance use disorder.

11. Clinicians should avoid prescribing opioid pain medication and benzodiazepines concurrently
Concurrent use is likely to put patients at greater risk for potentially fatal overdose. The clinical evidence review did not address risks of benzodiazepine co-prescription among patients prescribed opioids. However, the contextual evidence review found evidence in epidemiologic series of concurrent benzodiazepine use in large proportions of opioid-related overdose deaths, and a case-cohort study found concurrent benzodiazepine prescription with opioid prescription to be associated with a near quadrupling of risk for overdose death compared with opioid prescription alone (212). Experts agreed that although there are circumstances when it might be appropriate to prescribe opioids to a patient receiving benzodiazepines (e.g., severe acute pain in a patient taking long-term, stable low-dose benzodiazepine therapy), clinicians should avoid prescribing opioids and benzodiazepines concurrently whenever possible. In addition, given that other central nervous system depressants (e.g., muscle relaxants, hypnotics) can potentiate central nervous system depression associated with opioids, clinicians should consider whether benefits outweigh risks of concurrent use of these drugs. Clinicians should check the PDMP for concurrent controlled medications prescribed by other clinicians (see Recommendation 9) and should consider involving pharmacists and pain specialists as part of the management team when opioids are co-prescribed with other central nervous system depressants. Because of greater risks of benzodiazepine withdrawal relative to opioid withdrawal, and because tapering opioids can be associated with anxiety, when patients receiving both benzodiazepines and opioids require tapering to reduce risk for fatal respiratory depression, it might be safer and more practical to taper opioids first (see Recommendation 7). Clinicians should taper benzodiazepines gradually if discontinued because abrupt withdrawal can be associated with rebound anxiety, hallucinations, seizures, delirium tremens, and, in rare cases, death (contextual evidence review). A commonly used tapering schedule that has been used safely and with moderate success is a reduction of the benzodiazepine dose by 25% every 1–2 weeks (213,214). CBT increases tapering success rates and might be particularly helpful for patients struggling with a benzodiazepine taper (213). If benzodiazepines prescribed for anxiety are tapered or discontinued, or if patients receiving opioids require treatment for anxiety, evidence-based psychotherapies (e.g., CBT) and/or specific anti-depressants or other nonbenzodiazepine medications approved for anxiety should be offered. Experts emphasized that clinicians should communicate with mental health professionals managing the patient to discuss the patient’s needs, prioritize patient goals, weigh risks of concurrent benzodiazepine and opioid exposure, and coordinate care.

12. Clinicians should offer or arrange evidence-based treatment (usually medication-assisted treatment with buprenorphine or methadone in combination with behavioral therapies) for patients with opioid use disorder (recommendation category: A, evidence type: 2).

Opioid use disorder (previously classified as opioid abuse or opioid dependence) is defined in the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-5) as a problematic pattern of opioid use leading to clinically significant impairment or distress, manifested by at least two defined criteria occurring within a year (http://pcssmat.org/wp-content/uploads/2014/02/5B-DSM-5-Opioid-Use-Disorder-Diagnostic-Criteria.pdf) (20).

The clinical evidence review found prevalence of opioid dependence (using DSM-IV diagnosis criteria) in primary care settings among patients with chronic pain on opioid therapy to be 3%–26% (KQ2). As found in the contextual evidence review and supported by moderate quality evidence, opioid agonist or partial agonist treatment with methadone maintenance therapy or buprenorphine has been shown to be more effective in preventing relapse among patients with opioid use disorder (151–153). Some studies suggest that using behavioral therapies in combination with these treatments can reduce opioid misuse and increase retention during maintenance therapy and improve compliance after detoxification (154,155); behavioral therapies are also recommended by clinical practice guidelines (215). The cited studies primarily evaluated patients with a history of illicit opioid use, rather than prescription opioid use for chronic pain. Recent studies among patients with prescription opioid dependence (based on DSM-IV criteria) have found maintenance therapy with buprenorphine and buprenorphine-naloxone effective in preventing relapse (216,217). Treatment need in a community is often not met by capacity to provide buprenorphine or methadone maintenance therapy (218), and patient cost can be a barrier to buprenorphine treatment because insurance coverage of buprenorphine for opioid use disorder is often limited (219). Oral or long-acting injectable formulations of naltrexone can also be used as medication-assisted treatment for opioid use disorder in nonpregnant adults, particularly for highly motivated persons (220,221). Experts agreed that clinicians prescribing opioids should identify treatment resources for opioid use disorder in the community and should work together to ensure sufficient treatment capacity for opioid use disorder at the practice level.
If clinicians suspect opioid use disorder based on patient concerns or behaviors or on findings in prescription drug monitoring program data (see Recommendation 9) or from urine drug testing (see Recommendation 10), they should discuss their concern with their patient and provide an opportunity for the patient to disclose related concerns or problems. Clinicians should assess for the presence of opioid use disorder using DSM-5 criteria (20). Alternatively, clinicians can arrange for a substance use disorder treatment specialist to assess for the presence of opioid use disorder. For patients meeting criteria for opioid use disorder, clinicians should offer or arrange for patients to receive evidence-based treatment, usually medication-assisted treatment with buprenorphine or methadone maintenance therapy in combination with behavioral therapies. Oral or long-acting injectable naltrexone, a long-acting opioid antagonist, can also be used in nonpregnant adults. Naltrexone blocks the effects of opioids if they are used but requires adherence to daily oral therapy or monthly injections. For pregnant women with opioid use disorder, medication-assisted therapy with buprenorphine (without naloxone) or methadone has been associated with improved maternal outcomes and should be offered (see Recommendation 8). Clinicians should also consider offering naloxone for overdose prevention to patients with opioid use disorder (see Recommendation 8). For patients with problematic opioid use that does not meet criteria for opioid use disorder, experts noted that clinicians can offer to taper and discontinue opioids (see Recommendation 7). For patients who choose to but are unable to taper, clinicians may reassess for opioid use disorder and offer opioid agonist therapy if criteria are met.

Physicians not already certified to provide buprenorphine in an office-based setting can undergo training to receive a waiver from the Substance Abuse and Mental Health Services Administration (SAMHSA) that allows them to prescribe buprenorphine to treat patients with opioid use disorder. Physicians prescribing opioids in communities without sufficient treatment capacity for opioid use disorder should strongly consider obtaining this waiver. Information about qualifications and the process to obtain a waiver are available from SAMHSA (222). Clinicians do not need a waiver to offer naltrexone for opioid use disorder as part of their practice.

Additional guidance has been published previously (215) on induction, use, and monitoring of buprenorphine treatment (see Part 5) and naltrexone treatment (see Part 6) for opioid use disorder and on goals, components of, and types of effective psychosocial treatment that are recommended in conjunction with pharmacological treatment of opioid use disorder (see Part 7). Clinicians unable to provide treatment themselves should arrange for patients with opioid use disorder to receive care from a substance use disorder treatment specialist, such as an office-based buprenorphine or naltrexone treatment provider, or from an opioid treatment program certified by SAMHSA to provide supervised medication-assisted treatment for patients with opioid use disorder. Clinicians should assist patients in finding qualified treatment providers and should arrange for patients to follow up with these providers, as well as arranging for ongoing coordination of care. Clinicians should not dismiss patients from their practice because of a substance use disorder because this can adversely affect patient safety and could represent patient abandonment. Identification of substance use disorder represents an opportunity for a clinician to initiate potentially life-saving interventions, and it is important for the clinician to collaborate with the patient regarding their safety to increase the likelihood of successful treatment. In addition, although identification of an opioid use disorder can alter the expected benefits and risks of opioid therapy for pain, patients with co-occurring pain and substance use disorder require ongoing pain management that maximizes benefits relative to risks. Clinicians should continue to use nonpharmacologic and nonopioid pharmacologic pain treatments as appropriate (see Recommendation 1) and consider consulting a pain specialist as needed to provide optimal pain management.

Resources to help with arranging for treatment include SAMHSA’s buprenorphine physician locator (http://buprenorphine.samhsa.gov/bwns_locator); SAMHSA’s Opioid Treatment Program Directory (http://dpt2.samhsa.gov/treatment/directory.aspx); SAMHSA’s Provider Clinical Support System for Opioid Therapies (http://pcss-o.org), which offers extensive experience in the treatment of substance use disorders and specifically of opioid use disorder, as well as expertise on the interface of pain and opioid misuse; and SAMHSA’s Provider’s Clinical Support System for Medication-Assisted Treatment (http://pcssmat.org), which offers expert physician mentors to answer questions about assessment for and treatment of substance use disorders.

Conclusions and Future Directions

Clinical guidelines represent one strategy for improving prescribing practices and health outcomes. Efforts are required to disseminate the guideline and achieve widespread adoption and implementation of the recommendations in clinical settings. CDC will translate this guideline into user-friendly materials for distribution and use by health systems, medical professional societies, insurers, public health departments, health information technology developers, and clinicians and engage in dissemination efforts. CDC has provided a
checklist for prescribing opioids for chronic pain (http://stacks.cdc.gov/view/cdc/38025), additional resources such as fact sheets (http://www.cdc.gov/drugoverdose/prescribing/resources.html), and will provide a mobile application to guide clinicians in implementing the recommendations. CDC will also work with partners to support clinician education on pain management options, opioid therapy, and risk mitigation strategies (e.g., urine drug testing). Activities such as development of clinical decision support in electronic health records to assist clinicians’ treatment decisions at the point of care; identification of mechanisms that insurers and pharmacy benefit plan managers can use to promote safer prescribing within plans; and development of clinical quality improvement measures and initiatives to improve prescribing and patient care within health systems have promise for increasing guideline adoption and improving practice. In addition, policy initiatives that address barriers to implementation of the guidelines, such as increasing accessibility of PDMP data within and across states, e-prescribing, and availability of clinicians who can offer medication-assisted treatment for opioid use disorder, are strategies to consider to enhance implementation of the recommended practices. CDC will work with federal partners and payers to evaluate strategies such as payment reform and health care delivery models that could improve patient health and safety. For example, strategies might include strengthened coverage for nonpharmacologic treatments, appropriate urine drug testing, and medication-assisted treatment; reimbursable time for patient counseling; and payment models that improve access to interdisciplinary, coordinated care.

As highlighted in the forthcoming report on the National Pain Strategy, an overarching federal effort that outlines a comprehensive population-level health strategy for addressing pain as a public health problem, clinical guidelines complement other strategies aimed at preventing illnesses and injuries that lead to pain. A draft of the National Pain Strategy has been published previously (180). These strategies include strengthening the evidence base for pain prevention and treatment strategies, reducing disparities in pain treatment, improving service delivery and reimbursement, supporting professional education and training, and providing public education. It is important that overall improvements be made in developing the workforce to address pain management in general, in addition to opioid prescribing specifically. This guideline also complements other federal efforts focused on addressing the opioid overdose epidemic including precriber training and education, improving access to treatment for opioid use disorder, safe storage and disposal programs, utilization management mechanisms, naloxone distribution programs, law enforcement and supply reduction efforts, prescription drug monitoring program improvements, and support for community coalitions and state prevention programs.

This guideline provides recommendations that are based on the best available evidence that was interpreted and informed by expert opinion. The clinical scientific evidence informing the recommendations is low in quality. To inform future guideline development, more research is necessary to fill in critical evidence gaps. The evidence reviews forming the basis of this guideline clearly illustrate that there is much yet to be learned about the effectiveness, safety, and economic efficiency of long-term opioid therapy. As highlighted by an expert panel in a recent workshop sponsored by the National Institutes of Health on the role of opioid pain medications in the treatment of chronic pain, “evidence is insufficient for every clinical decision that a provider needs to make about the use of opioids for chronic pain” (223). The National Institutes of Health panel recommended that research is needed to improve our understanding of which types of pain, specific diseases, and patients are most likely to be associated with benefit and harm from opioid pain medications; evaluate multidisciplinary pain interventions; estimate cost-benefit; develop and validate tools for identification of patient risk and outcomes; assess the effectiveness and harms of opioid pain medications with alternative study designs; and investigate risk identification and mitigation strategies and their effects on patient and public health outcomes. It is also important to obtain data to inform the cost feasibility and cost-effectiveness of recommended actions, such as use of nonpharmacologic therapy and urine drug testing. Research that contributes to safer and more effective pain treatment can be implemented across public health entities and federal agencies (4). Additional research can inform the development of future guidelines for special populations that could not be adequately addressed in this guideline, such as children and adolescents, where evidence and guidance is needed but currently lacking. CDC is committed to working with partners to identify the highest priority research areas to build the evidence base. Yet, given that chronic pain is recognized as a significant public health problem, the risks associated with long-term opioid therapy, the availability of effective nonpharmacological and nonopioid pharmacologic treatment options for pain, and the potential for improvement in the quality of health care with the implementation of recommended practices, a guideline for prescribing is warranted with the evidence that is currently available. The balance between the benefits and the risks of long-term opioid therapy for chronic pain based on both clinical and contextual evidence is strong enough to support the issuance of category A recommendations in most cases.
CDC will revisit this guideline as new evidence becomes available to determine when evidence gaps have been sufficiently closed to warrant an update of the guideline. Until this research is conducted, clinical practice guidelines will have to be based on the best available evidence and expert opinion. This guideline is intended to improve communication between clinicians and patients about the risks and benefits of opioid therapy for chronic pain, improve the safety and effectiveness of pain treatment, and reduce the risks associated with long-term opioid therapy, including opioid use disorder, overdose, and death. CDC is committed to evaluating the guideline to identify the impact of the recommendations on clinician and patient outcomes, both intended and unintended, and revising the recommendations in future updates when warranted.

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Members of the Core Expert Group; the Core Expert Group facilitator: Don Teater, MD; members of the Stakeholder Review Group; peer reviewers; the Opioid Guideline Workgroup, consultants, and the NCIPC Board of Scientific Counselors; federal partners: Richard Kronick, PhD, Deborah G. Perfetto, PharmD, Agency for Healthcare Research and Quality; Jeffrey A. Kelman, MD, Diane L. McNally, Centers for Medicare & Medicaid Services; Jonathan Woodson, MD, David Smith, MD, Jack Smith, MD, Christopher Spevak, MD, Department of Defense; Stephen M. Ostroff, MD, Christopher M. Jones, PharmD, Food and Drug Administration; Jim Macrae, MA, MPP, Alexander F. Ross, ScD, Health Resources and Services Administration; Nora Volkow, MD, David Thomas, PhD, National Institute of Drug Abuse; John Howard, MD, Douglas Trout, MD, National Institute for Occupational Safety and Health; Karen B. DeSalvo, MD, Jennifer Frazier, MPH, Office of the National Coordinator, Michael Botticelli, MEd, Cecelia McNamara Spitznas, PhD, Office of National Drug Control Policy; Kana Enomoto, MA, Jinhee Lee, PharmD, Substance Abuse and Mental Health Services Administration; Robert McDonald, MBA, Jack M. Rosenberg, MD, Veterans Administration; members of the public who provided comment during the webinar; Douglas McDonald, PhD, Brandy Wyant, MPH, Kenneth Carlson, Amy Berninger, MPH, Abi Associates; Thomas Frieden, MD, Anne Schuchat, MD, Ileana Arias, PhD, CDC Office of the Director, Debra Houry, MD, National Center for Injury Prevention and Control, Amy Peeples, MPA, National Center for Injury Prevention and Control, Arlene Greenspan, DrPH, National Center for Injury Prevention and Control, Grant Baldwin, PhD, Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control, Rita Noonan, PhD, Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control, Julie Gilchrist, MD, Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control, Terry Davis, EdD, Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control, Wes Sargent, EdD, Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control, Brian Manns, PharmD, Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control, Lisa Garbarino, Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control, Donovan Newton, MPA, Division of Analysis, Research and Practice Integration, National Center for Injury Prevention and Control, Joann Kang, JD, Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control, Noah Aleshire, JD, Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control, Jennifer VanderVeer, JD, Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control, LeShaundra Scott, MPH, Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control, Sarah Lewis, MPH, Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control, Helen Kingery, MPH, Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control, Kristen Sanderson, MPH, Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control, Kate Fox, MPP, National Center for Injury Prevention and Control, Leslie Dorigo, MA, National Center for Injury Prevention and Control, Erin Connelly, MPA, National Center for Injury Prevention and Control, Sara Patterson, MA, National Center for Injury Prevention and Control, Mark Biagioni, MPA, National Center for Injury Prevention and Control, and Leonard J. Paulozzi, MD, Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control, CDC.

References


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### TABLE 1. Grading of Recommendations Assessment, Development and Evaluation (GRADE) clinical evidence review ratings of the evidence for the key clinical questions regarding effectiveness and risks of long-term opioid therapy for chronic pain

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Studies</th>
<th>Limitations</th>
<th>Inconsistency</th>
<th>Imprecision</th>
<th>Type of evidence</th>
<th>Other factors</th>
<th>Estimates of effect/findings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Effectiveness and comparative effectiveness (KQ1)</strong></td>
<td></td>
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<tr>
<td>Effectiveness of long-term opioid therapy versus placebo or no opioid therapy for long-term (≥1 year) outcomes</td>
<td></td>
<td></td>
<td></td>
<td>Insufficient</td>
<td></td>
<td></td>
<td>One retrospective cohort study found long-term use of prescribed opioids associated with an increased risk of abuse or dependence diagnosis versus no opioid use (adjusted OR ranged from 14.9 to 122.5, depending on dose).</td>
</tr>
<tr>
<td>Pain, function, and quality of life</td>
<td>None</td>
<td>—†</td>
<td>—</td>
<td>—</td>
<td>Insufficient</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Harms and adverse events (KQ2)</strong></td>
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<tr>
<td>Risks of opioids versus placebo or no opioids on opioid abuse, addiction, and related outcomes; overdose; and other harms</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Abuse or addiction</td>
<td>1 cohort study (n = 568,640)</td>
<td>Serious limitations</td>
<td>Unknown (1 study)</td>
<td>No imprecision</td>
<td>3</td>
<td>None identified</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 uncontrolled studies (n = 3,780)</td>
<td>Very serious limitations</td>
<td>Very serious inconsistency</td>
<td>No imprecision</td>
<td>4</td>
<td>None identified</td>
<td>In primary care settings, prevalence of opioid abuse ranged from 0.6% to 8% and prevalence of dependence from 3% to 26%. In pain clinic settings, prevalence of misuse ranged from 8% to 16% and addiction from 2% to 14%. Prevalence of aberrant drug-related behaviors ranged from 6% to 37%.</td>
</tr>
<tr>
<td>Overdose</td>
<td>1 cohort study (n = 9,940)</td>
<td>Serious limitations</td>
<td>Unknown (1 study)</td>
<td>Serious imprecision</td>
<td>3</td>
<td>None identified</td>
<td>Current opioid use associated with increased risk of any overdose events (adjusted HR 5.2, 95% CI = 2.1–12) and serious overdose events (adjusted HR 8.4, 95% CI = 2.5–28) versus current nonuse.</td>
</tr>
<tr>
<td>Fractures</td>
<td>1 cohort study (n = 2,341) and 1 case–control study (n = 21,739 case patients)</td>
<td>Serious limitations</td>
<td>No inconsistency</td>
<td>No imprecision</td>
<td>3</td>
<td>None identified</td>
<td>Opioid use associated with increased risk of fracture in 1 cohort study (adjusted HR 1.28, 95% CI = 0.99–1.64) and 1 case-control study (adjusted OR 1.27, 95% CI = 1.21–1.33).</td>
</tr>
<tr>
<td>Myocardial infarction</td>
<td>1 cohort study (n = 426,124) and 1 case–control study (n = 11,693 case patients)</td>
<td>No limitations</td>
<td>No inconsistency</td>
<td>No imprecision</td>
<td>3</td>
<td>None identified</td>
<td>Current opioid use associated with increased risk of myocardial infarction versus nonuse (adjusted OR 1.28, 95% CI = 1.19–1.37 and incidence rate ratio 2.66, 95% CI = 2.30–3.08).</td>
</tr>
<tr>
<td>Endocrinologic harms</td>
<td>1 cross-sectional study (n = 11,327)</td>
<td>Serious limitations</td>
<td>Unknown (1 study)</td>
<td>No imprecision</td>
<td>3</td>
<td>None identified</td>
<td>Long-term opioid use associated with increased risk for use of medications for erectile dysfunction or testosterone replacement versus nonuse (adjusted OR 1.5, 95% CI = 1.1–1.9).</td>
</tr>
<tr>
<td>How do harms vary depending on the opioid dose used?</td>
<td></td>
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</tr>
<tr>
<td>Abuse or addiction</td>
<td>1 cohort study (n = 568,640)</td>
<td>Serious limitations</td>
<td>Unknown (1 study)</td>
<td>No imprecision</td>
<td>3</td>
<td>None identified</td>
<td>One retrospective cohort study found higher doses of long-term opioid therapy associated with increased risk of opioid abuse or dependence than lower doses. Compared to no opioid prescription, the adjusted odds ratios were 15 (95% CI = 10–21) for 1 to 36 MME/day, 29 (95% CI = 20–41) for 36 to 120 MME/day, and 122 (95% CI = 73–205) for ≥120 MME/day.</td>
</tr>
<tr>
<td>Overdose</td>
<td>1 cohort study (n = 9,940) and 1 case–control study (n = 593 case patients in primary analysis)</td>
<td>Serious limitations</td>
<td>No inconsistency</td>
<td>No imprecision</td>
<td>3</td>
<td>Magnitude of effect, dose response relationship</td>
<td>Versus 1 to &lt;20 MME/day, one cohort study found an adjusted HR for an overdose event of 1.44 (95% CI = 0.57–3.62) for 20 to &lt;50 MME/day that increased to 8.87 (95% CI = 3.99–19.72) at ≥100 MME/day; one case-control study found an adjusted OR for an opioid-related death of 1.32 (95% CI = 0.94–1.84) for 20 to 49 MME/day that increased to 2.84 (95% CI = 1.79–4.63) at ≥200 MME/day.</td>
</tr>
<tr>
<td>Fractures</td>
<td>1 cohort study (n = 2,341)</td>
<td>Serious limitations</td>
<td>Unknown (1 study)</td>
<td>Serious imprecision</td>
<td>3</td>
<td>None identified</td>
<td>Risk of fracture increased from an adjusted HR of 1.20 (95% CI = 0.92–1.56) at 1 to &lt;20 MME/day to 2.00 (95% CI = 1.24–3.24) at ≥30 MME/day; the trend was of borderline statistical significance.</td>
</tr>
</tbody>
</table>

See table footnotes on page 47.
### TABLE 1. (Continued) Grading of Recommendations Assessment, Development and Evaluation (GRADE) clinical evidence review ratings of the evidence for the key clinical questions regarding effectiveness and risks of long-term opioid therapy for chronic pain

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Studies</th>
<th>Limitations</th>
<th>Inconsistency</th>
<th>Imprecision</th>
<th>Type of evidence</th>
<th>Other factors</th>
<th>Estimates of effect/findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Myocardial infarction</td>
<td>1 cohort study (n = 426,124)</td>
<td>Serious limitations</td>
<td>Unknown (1 study)</td>
<td>No imprecision</td>
<td>3</td>
<td>None identified</td>
<td>Relative to a cumulative dose of 0 to 1,350 MME during a 90-day period, the incidence rate ratio for myocardial infarction for 1350 to &lt;2700 MME was 1.21 (95% CI = 1.02–1.45), for 2,700 to &lt;8,100 MME was 1.42 (95% CI = 1.21–1.67), for 8,100 to &lt;18,000 MME was 1.89 (95% CI = 1.54–2.33), and for ≥18,000 MME was 1.73 (95% CI = 1.32–2.26).</td>
</tr>
<tr>
<td>Motor vehicle crash injuries</td>
<td>1 case–control study (n = 5,300 case patients)</td>
<td>No limitations</td>
<td>Unknown (1 study)</td>
<td>No imprecision</td>
<td>3</td>
<td>None identified</td>
<td>No association between opioid dose and risk of motor vehicle crash injuries even though opioid doses &gt;20 MME/day were associated with increased odds of road trauma among drivers.</td>
</tr>
<tr>
<td>Endocrinologic harms</td>
<td>1 cross-sectional study (n = 11,327) New for update: 1 additional cross-sectional study (n=1,585)</td>
<td>Serious limitations</td>
<td>Consistent</td>
<td>No imprecision</td>
<td>3</td>
<td>None identified</td>
<td>Relative to 0 to &lt;20 MME/day, the adjusted OR for ≥120 MME/day for use of medications for erectile dysfunction or testosterone replacement was 1.6 (95% CI = 1.0–2.4). One new cross-sectional study found higher-dose long-term opioid therapy associated with increased risk of androgen deficiency among men receiving immediate-release opioids (adjusted OR per 10 MME/day 1.16, 95% CI = 1.09–1.23), but the dose response was very weak among men receiving ER/LA opioids.</td>
</tr>
<tr>
<td>Dosing strategies (KQ3)</td>
<td></td>
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<tr>
<td>Comparative effectiveness of different methods for initiating opioid therapy and titrating doses</td>
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<tr>
<td>Pain</td>
<td>3 randomized trials (n = 93)</td>
<td>Serious limitations</td>
<td>Serious inconsistency</td>
<td>Very serious imprecision</td>
<td>4</td>
<td>None identified</td>
<td>Trials on effects of titration with immediate-release versus ER/LA opioids reported inconsistent results and had additional differences between treatment arms in dosing protocols (titrated versus fixed dosing) and doses of opioids used.</td>
</tr>
<tr>
<td>Overdose</td>
<td>New for update: 1 cohort study (n = 840,606)</td>
<td>Serious limitations</td>
<td>Unknown (1 study)</td>
<td>No imprecision</td>
<td>4</td>
<td>None identified</td>
<td>One new cross-sectional study found initiation of therapy with an ER/LA opioid associated with increased risk of overdose versus initiation with an immediate-release opioid (adjusted HR 2.33, 95% CI = 1.26–4.32).</td>
</tr>
<tr>
<td>Comparative effectiveness of different ER/LA opioids</td>
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<tr>
<td>Pain and function</td>
<td>3 randomized trials (n = 1,850) 1 cohort study (n = 108,492) New for update: 1 cohort study (n = 38,756)</td>
<td>Serious limitations</td>
<td>Serious limitations</td>
<td>No inconsistency</td>
<td>No imprecision</td>
<td>3</td>
<td>None identified</td>
</tr>
<tr>
<td>All-cause mortality</td>
<td>1 cohort study (n = 5,684)</td>
<td>Serious limitations</td>
<td>Unknown (1 study)</td>
<td>Serious inconsistency</td>
<td>No imprecision</td>
<td>4</td>
<td>None identified</td>
</tr>
<tr>
<td>Abuse and related outcomes</td>
<td></td>
<td>Serious limitations</td>
<td>Unknown (1 study)</td>
<td>Serious imprecision</td>
<td>4</td>
<td>None identified</td>
<td>One cohort study found some differences between ER/LA opioids in rates of adverse outcomes related to abuse, but outcomes were nonspecific for opioid-related adverse events, precluding reliable conclusions.</td>
</tr>
<tr>
<td>ER/LA versus immediate-release opioids</td>
<td>New for update: 1 cross-sectional study (n = 1,585)</td>
<td>Serious limitations</td>
<td>Unknown (1 study)</td>
<td>No imprecision</td>
<td>4</td>
<td>None identified</td>
<td>One cross-sectional study found ER/LA opioids associated with increased risk of androgen deficiency versus immediate-release opioids (adjusted OR 3.39, 95% CI = 2.39–4.77).</td>
</tr>
</tbody>
</table>

See table footnotes on page 47.
### TABLE 1. (Continued) Grading of Recommendations Assessment, Development and Evaluation (GRADE) clinical evidence review ratings of the evidence for the key clinical questions regarding effectiveness and risks of long-term opioid therapy for chronic pain

<table>
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<tr>
<th>Outcome</th>
<th>Studies</th>
<th>Limitations</th>
<th>Inconsistency</th>
<th>Imprecision</th>
<th>Type of evidence</th>
<th>Other factors</th>
<th>Estimates of effect/findings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dose escalation versus dose maintenance or use of dose thresholds</strong></td>
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</tr>
<tr>
<td>Pain, function, or withdrawal due to opioid misuse</td>
<td>1 randomized trial (n = 140)</td>
<td>Serious limitations</td>
<td>Unknown (1 study)</td>
<td>Very serious imprecision</td>
<td>3</td>
<td>None identified</td>
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<td></td>
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<td></td>
<td>No difference between more liberal dose escalation versus maintenance of current doses in pain, function, or risk of withdrawal due to opioid misuse, but there was limited separation in opioid doses between groups (52 versus 40 MME/day at the end of the trial).</td>
</tr>
<tr>
<td><strong>Immediate-release versus ER/LA opioids; immediate-release plus ER/LA opioids versus ER/LA opioids alone; scheduled and continuous versus as-needed dosing of opioids; or opioid rotation versus maintenance of current therapy</strong></td>
<td></td>
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</tr>
<tr>
<td>Pain, function, quality of life, and outcomes related to abuse</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td>Insufficient</td>
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<tr>
<td><strong>Effects of decreasing or tapering opioid doses versus continuation of opioid therapy</strong></td>
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</tr>
<tr>
<td>Pain and function</td>
<td>1 randomized trial (n = 10)</td>
<td>Very serious limitations</td>
<td>Unknown (1 study)</td>
<td>Very serious imprecision</td>
<td>4</td>
<td>None identified</td>
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<tr>
<td></td>
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<td></td>
<td>Abrupt cessation of morphine was associated with increased pain and decreased function compared with continuation of morphine.</td>
</tr>
<tr>
<td><strong>Comparative effectiveness of different tapering protocols and strategies</strong></td>
<td></td>
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<tr>
<td>Opioid abstinence</td>
<td>2 nonrandomized trials (n = 150)</td>
<td>Very serious limitations</td>
<td>No inconsistency</td>
<td>Very serious imprecision</td>
<td>4</td>
<td>None identified</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td>No clear differences between different methods for opioid discontinuation or tapering in likelihood of opioid abstinence after 3–6 months</td>
</tr>
<tr>
<td><strong>Risk assessment and risk mitigation strategies (KQ4)</strong></td>
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</tr>
<tr>
<td>Diagnostic accuracy of instruments for predicting risk for opioid overdose, addiction, abuse, or misuse among patients with chronic pain being considered for long-term opioid therapy</td>
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<tr>
<td>Opioid risk tool</td>
<td>3 studies of diagnostic accuracy (n = 496)</td>
<td>Serious limitations</td>
<td>Very serious inconsistency</td>
<td>Serious imprecision</td>
<td>4</td>
<td>None identified</td>
<td></td>
</tr>
<tr>
<td></td>
<td>New for update: 2 studies of diagnostic accuracy (n = 320)</td>
<td></td>
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<td>Based on a cutoff score of &gt;4 (or unspecified), five studies (two fair-quality, three poor-quality) reported sensitivity that ranged from 0.20 to 0.99 and specificity that ranged from 0.16 to 0.88.</td>
</tr>
<tr>
<td>Screener and Opioid Assessment for Patients with Pain, Version 1</td>
<td>2 studies of diagnostic accuracy (n = 203)</td>
<td>Very serious limitations</td>
<td>No inconsistency</td>
<td>Serious imprecision</td>
<td>3</td>
<td>None identified</td>
<td></td>
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<tr>
<td></td>
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<td></td>
<td>Based on a cutoff score of &gt;3 or unspecified, sensitivity was 0.68 and specificity was 0.38 in one study, for a positive likelihood ratio of 1.11 and a negative likelihood ratio of 0.83. Based on a cutoff score of &gt;6, sensitivity was 0.73 in one study.</td>
</tr>
<tr>
<td>Screener and Opioid Assessment for Patients with Pain-Revised</td>
<td>New for update: 2 studies of diagnostic accuracy (n = 320)</td>
<td>Very serious limitations</td>
<td>No inconsistency</td>
<td>Serious imprecision</td>
<td>3</td>
<td>None identified</td>
<td></td>
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<td></td>
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<td></td>
<td>Based on a cutoff score of &gt;3 or unspecified, sensitivity was 0.25 and 0.53 and specificity was 0.62 and 0.73 in two studies, for likelihood ratios close to 1.</td>
</tr>
<tr>
<td>Brief Risk Interview</td>
<td>New for update: 2 studies of diagnostic accuracy (n = 320)</td>
<td>Very serious limitations</td>
<td>No inconsistency</td>
<td>Serious imprecision</td>
<td>3</td>
<td>None identified</td>
<td></td>
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<td></td>
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<td>Based on a “high risk” assessment, sensitivity was 0.73 and 0.83 and specificity was 0.43 and 0.88 in two studies, for positive likelihood ratios of 1.28 and 7.18 and negative likelihood ratios of 0.63 and 0.19.</td>
</tr>
</tbody>
</table>

See table footnotes on page 47.
### TABLE 1. (Continued) Grading of Recommendations Assessment, Development and Evaluation (GRADE) clinical evidence review ratings of the evidence for the key clinical questions regarding effectiveness and risks of long-term opioid therapy for chronic pain

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</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness of risk prediction instruments on outcomes related to overdose, addiction, abuse, or misuse in patients with chronic pain</td>
<td>None</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>Insufficient</td>
<td></td>
<td>No evidence</td>
</tr>
<tr>
<td>Effectiveness of risk mitigation strategies, including opioid management plans, patient education, urine drug screening, use of prescription drug monitoring program data, use of monitoring instruments, more frequent monitoring intervals, pill counts, and use of abuse-deterrent formulations, on outcomes related to overdose, addiction, abuse, or misuse</td>
<td>None</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>Insufficient</td>
<td></td>
<td>No evidence</td>
</tr>
<tr>
<td>Effectiveness of risk prediction instruments on outcomes related to overdose, addiction, abuse, or misuse in patients with chronic pain</td>
<td>None</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>Insufficient</td>
<td></td>
<td>No evidence</td>
</tr>
<tr>
<td>Effectiveness of risk mitigation strategies, including opioid management plans, patient education, urine drug screening, use of prescription drug monitoring program data, use of monitoring instruments, more frequent monitoring intervals, pill counts, and use of abuse-deterrent formulations, on outcomes related to overdose, addiction, abuse, or misuse</td>
<td>None</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>Insufficient</td>
<td></td>
<td>No evidence</td>
</tr>
<tr>
<td>Comparative effectiveness of treatment strategies for managing patients with addiction to prescription opioids</td>
<td>None</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>Insufficient</td>
<td></td>
<td>No evidence</td>
</tr>
<tr>
<td>Effects of opioid therapy for acute pain on long-term use (KQ5)</td>
<td>New for update: 2 cohort studies (n = 399,852)</td>
<td>Serious limitations</td>
<td>No inconsistency</td>
<td>No imprecision</td>
<td>3</td>
<td>None identified</td>
<td>One study found use of opioids within 7 days of low-risk surgery associated with increased likelihood of opioid use at 1 year (adjusted OR 1.44, 95% CI = 1.39–1.50), and one study found use of opioids within 15 days of onset of low back pain among workers with a compensation claim associated with increased risk of late opioid use (adjusted OR 2.08, 95% CI = 1.55–2.87 for 1 to 140 MME/day and OR 6.14, 95% CI = 4.92–7.66 for ≥450 MME/day).</td>
</tr>
</tbody>
</table>

Abbreviations: CI = confidence interval; ER/LA = extended release/long-acting; HR = hazard ratio; MME = morphine milligram equivalents; OR = odds ratio.

* Ratings were made per GRADE quality assessment criteria; “no limitations” indicates that limitations assessed through the GRADE method were not identified.

† Not applicable as no evidence was available for rating.
### TABLE 2. Morphine milligram equivalent (MME) doses for commonly prescribed opioids

<table>
<thead>
<tr>
<th>Opioid</th>
<th>Conversion factor*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Codeine</td>
<td>0.15</td>
</tr>
<tr>
<td>Fentanyl transdermal (in mcg/hr)</td>
<td>2.4</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>1</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>4</td>
</tr>
<tr>
<td>Methadone</td>
<td></td>
</tr>
<tr>
<td>1–20 mg/day</td>
<td>4</td>
</tr>
<tr>
<td>21–40 mg/day</td>
<td>8</td>
</tr>
<tr>
<td>41–60 mg/day</td>
<td>10</td>
</tr>
<tr>
<td>≥61–80 mg/day</td>
<td>12</td>
</tr>
<tr>
<td>Morphine</td>
<td>1</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>1.5</td>
</tr>
<tr>
<td>Oxymorphone</td>
<td>3</td>
</tr>
<tr>
<td>Tapentadol†</td>
<td>0.4</td>
</tr>
</tbody>
</table>

* Multiply the dose for each opioid by the conversion factor to determine the dose in MMEs. For example, tablets containing hydrocodone 5 mg and acetaminophen 300 mg taken four times a day would contain a total of 20 mg of hydrocodone daily, equivalent to 20 MME daily; extended-release tablets containing oxycodone 10 mg and taken twice a day would contain a total of 20 mg of oxycodone daily, equivalent to 30 MME daily. The following cautions should be noted: 1) All doses are in mg/day except for fentanyl, which is mcg/hr. 2) Equianalgesic dose conversions are only estimates and cannot account for individual variability in genetics and pharmacokinetics. 3) Do not use the calculated dose in MMEs to determine the doses to use when converting opioid to another; when converting opioids the new opioid is typically dosed at substantially lower than the calculated MME dose to avoid accidental overdose due to incomplete cross-tolerance and individual variability in opioid pharmacokinetics. 4) Use particular caution with methadone dose conversions because the conversion factor increases at higher doses. 5) Use particular caution with fentanyl since it is dosed in mcg/hr instead of mg/day, and its absorption is affected by heat and other factors.

† Tapentadol is a mu receptor agonist and norepinephrine reuptake inhibitor. MMEs are based on degree of mu-receptor agonist activity, but it is unknown if this drug is associated with overdose in the same dose-dependent manner as observed with medications that are solely mu receptor agonists.

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CDC Guideline for Prescribing Opioids for Chronic Pain

Clinician Outreach and Communication Activity (COCA) Call
June 22, 2016
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Planners have reviewed content to ensure there is no bias.

This presentation will include discussion of the off-label use of medications with evidence-based indications for pain.
Objectives

At the conclusion of this session, the participant will be able to:

- Describe what is known about effectiveness and risks of long-term opioid therapy for chronic pain.
- Discuss how to determine when opioids should be initiated or continued for chronic pain, and when should they be discontinued.
- Discuss recommendations for opioid selection and dosage for chronic pain.
- Describe strategies that can be used to assess risk and address harms of opioid use.
# Save-the-Dates

Mark your calendar for the upcoming opioid prescribing calls

<table>
<thead>
<tr>
<th>Call No.</th>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>June 22</td>
<td>Guideline for Prescribing Opioids for Chronic Pain</td>
</tr>
<tr>
<td>2</td>
<td>July 27</td>
<td>Non-Opioid Treatments</td>
</tr>
<tr>
<td>3</td>
<td>August 3</td>
<td>Assessing Benefits and Harms of Opioid Therapy</td>
</tr>
<tr>
<td>4</td>
<td>August 17</td>
<td>Dosing and Titration of Opioids</td>
</tr>
</tbody>
</table>
TODAY’S PRESENTER

Tamara Haegerich, PhD
Deputy Associate Director for Science
National Center for Injury Prevention and Control
Centers for Disease Control and Prevention
TODAY’S PRESENTER

David J. Tauben, MD, FACP
Clinical Professor and Chief
Division of Pain Medicine
University of Washington
Disclaimer

The findings and conclusions in this presentation are those of the author(s) and do not necessarily represent the views of the Centers for Disease Control and Prevention/the Agency for Toxic Substances and Disease Registry
CDC Guideline for Prescribing Opioids for Chronic Pain

Tamara Haegerich, PhD
Deborah Dowell, MD, MPH

June 22, 2016
Chronic Pain and Prescription Opioids

• 11% of Americans experience daily (chronic) pain
• Opioids frequently prescribed for chronic pain
• Primary care providers commonly treat chronic, non-cancer pain
  – account for ~50% of opioid pain medications dispensed
  – report concern about opioids and insufficient training
The amount of opioids prescribed has QUADRUPLED from 1999-2014, but the pain that Americans report remains UNCHANGED.
Since 1999, there have been more than 165,000 deaths from overdose related to prescription opioids.
Purpose, Use, and Primary Audience

• Primary Care Providers
  – Family medicine, Internal medicine
  – Physicians, nurse practitioners, physician assistants
• Treating patients ≥18 years with chronic pain
  – Pain longer than 3 months or past time of normal tissue healing
• Outpatient settings
• Does not include active cancer treatment, palliative care, and end-of-life care
Guideline Development Process

- **Analyze**
  - Systematic Literature Review
  - CDC Draft Recommendations
  - Core Expert Group Consultation
  - CDC Draft Guideline
  - Core Expert & Stakeholder Review
  - Federal Partner Review
  - Peer Review

- **Consult**

- **Comment**
  - CDC Revised Guideline
  - FRN Public Comment
  - Federal Advisory Committee Review
  - Publication of Guideline (March 15, 2016)

- **Review**
GRADE Method

• Standard for guideline development
• Transparent approach for conducting systematic review, rating quality of evidence, and determining strength of recommendations
• Used by > 100 organizations
• Recommendations based on:
  – Quality of evidence
  – Balance between benefits and harms
  – Values and preferences
  – Cost
GRADE Evidence Types

• Evidence Types:
  – Type 1: Randomized controlled trials (RCTs); overwhelming observational studies
  – Type 2: RCTs (limitations); strong observational
  – Type 3: RCTs (notable limitations); observational
  – Type 4: RCTs (major limitations); observational (notable limitations) clinical experience
GRADE Recommendation Categories

• Recommendation categories:
  – Category A: applies to all patients; most patients should receive recommended course of action
  – Category B: individual decision making required; providers help patients arrive at decision consistent with values/preferences and clinical situation
CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016

Continuing Education Examination available at http://www.cdc.gov/mmwr/cno/content.html.
CDC Guideline for Prescribing Opioids for Chronic Pain—United States, 2016

Deborah Dowell, Tamara Haegerich, and Roger Chou

Published online March 15, 2016
Clinical Evidence Summary

- No long-term (> 1 year) outcomes in pain/function; most placebo-controlled trials ≤ 6 weeks
- Opioid dependence in primary care: 3%-26%
- Dose-dependent association with risk of overdose/harms
- Inconsistent results for different dosing protocols; initiation with LA/ER increased risk of overdose
- Methadone associated with higher mortality risk
- No differences in pain/function with dose escalation
- Risk prediction instruments have insufficient accuracy for classification of patients
- Increased likelihood of long-term use when opioids used for acute pain
Contextual Evidence Summary

• Effective nonpharmacologic therapies: exercise, cognitive behavioral therapy (CBT), interventional procedures
• Effective nonopioid medications: acetaminophen, nonsteroidal anti-inflammatory drugs (NSAIDs), anticonvulsants, antidepressants
• Opioid-related overdose risk is dose-dependent
• Factors that increase risk for harm: pregnancy, older age, mental health disorder, substance use disorder, sleep-disordered breathing
• Providers lack confidence in ability to prescribe safely and are concerned about opioid use disorder
• Patients are ambivalent about risks/benefits and associate opioids with addiction
Organization of Recommendations

• The 12 recommendations are grouped into three conceptual areas:
  – Determining when to initiate or continue opioids for chronic pain
  – Opioid selection, dosage, duration, follow-up, and discontinuation
  – Assessing risk and addressing harms of opioid use
Determine when to initiate or continue opioids for chronic pain
Opioids not first-line or routine therapy for chronic pain

• Nonpharmacologic therapy and nonopioid pharmacologic therapy are preferred for chronic pain.
• Clinicians should consider opioid therapy only if expected benefits for both pain and function are anticipated to outweigh risks to the patient.
• If opioids are used, they should be combined with nonpharmacologic therapy and nonopioid pharmacologic therapy, as appropriate.

(Recommendation category A: Evidence type: 3)
Establish and measure progress toward goals

• Before starting opioid therapy for chronic pain, clinicians should establish treatment goals with all patients, including realistic goals for pain and function, and should consider how therapy will be discontinued if benefits do not outweigh risks.

• Clinicians should continue opioid therapy only if there is clinically meaningful improvement in pain and function that outweighs risks to patient safety.

(Recommendation category A: Evidence type: 4)
Discuss benefits and risks with patients

• Before starting and periodically during opioid therapy, clinicians should discuss with patients known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy.

(Recommendation category A: Evidence type: 3)
Opioid selection, dosage, duration, follow-up, and discontinuation
Use immediate-release opioids when starting

- When starting opioid therapy for chronic pain, clinicians should prescribe immediate-release opioids instead of extended-release/long-acting (ER/LA) opioids.

(Recommendation category A: Evidence type: 4)

Additional cautions for
- Methadone
- Transdermal fentanyl
- Immediate-release opioids combined with ER/LA opioids
Use caution at any dose and avoid increasing to high dosages

- When opioids are started, clinicians should prescribe the lowest effective dosage.
- Clinicians should use caution when prescribing opioids at any dosage, should carefully reassess evidence of individual benefits and risks when increasing dosage to ≥50 morphine milligram equivalents (MME)/day, and should avoid increasing dosage to ≥90 MME/day or carefully justify a decision to titrate dosage to >90 MME/day.

(Recommendation category A: Evidence type: 3)
Prescribe no more than needed

• Long-term opioid use often begins with treatment of acute pain. When opioids are used for acute pain, clinicians should prescribe the lowest effective dose of immediate-release opioids and should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids.

• 3 days or less will often be sufficient; more than 7 days will rarely be needed.

(Recommendation category A: Evidence type: 4)
Offer a taper if opioids cause harm or are not helping

- Clinicians should evaluate benefits and harms with patients within 1 to 4 weeks of starting opioid therapy for chronic pain or of dose escalation.
- Clinicians should evaluate benefits and harms of continued therapy with patients every 3 months or more frequently.
- If benefits do not outweigh harms of continued opioid therapy, clinicians should optimize other therapies and work with patients to taper opioids to lower dosages or to taper and discontinue opioids.

(Recommendation category A: Evidence type: 4)
Assessing risk and addressing harms of opioid use
Evaluate and address risks for opioid-related harms

• Before starting and periodically during continuation of opioid therapy, clinicians should evaluate risk factors for opioid-related harms.

• Clinicians should incorporate into the management plan strategies to mitigate risk, including considering offering naloxone when factors that increase risk for opioid overdose, such as history of overdose, history of substance use disorder, higher opioid dosages (≥50 MME/day), or concurrent benzodiazepine use, are present.

(Recommendation category A: Evidence type: 4)
Check PDMP for high dosages and dangerous combinations

- Clinicians should review the patient’s history of controlled substance prescriptions using state PDMP data to determine whether the patient is receiving opioid dosages or dangerous combinations that put him/her at high risk for overdose.
- Clinicians should review PDMP data when starting opioid therapy for chronic pain and periodically during opioid therapy for chronic pain, ranging from every prescription to every 3 months.

(Recommendation category A: Evidence type: 4)
Test urine for prescribed opioids and other drugs

- When prescribing opioids for chronic pain, clinicians should use urine drug testing before starting opioid therapy and consider urine drug testing at least annually to assess for prescribed medications as well as other controlled prescription drugs and illicit drugs.

(Recommendation category B: Evidence type: 4)
Avoid concurrent opioid and benzodiazepine prescribing

- Clinicians should avoid prescribing opioid pain medication and benzodiazepines concurrently whenever possible.

(Recommendation category A: Evidence type: 3)
Treat patients for opioid use disorder (OUD) if needed

• Clinicians should offer or arrange evidence-based treatment (usually medication-assisted treatment with buprenorphine or methadone in combination with behavioral therapies) for patients with opioid use disorder.

(Recommendation category A: Evidence type: 2)
Implementation Resources
Resources

• Fact sheets
  – New Opioid Prescribing Guideline
  – Assessing Benefits and Harms of Opioid Therapy
  – Prescription Drug Monitoring Programs
  – Calculating Total Daily Dose of Opioids for Safer Prescribing
  – Pregnancy and Opioid Pain Medications
Checklist for prescribing opioids for chronic pain

**Checklist for prescribing opioids for chronic pain**

For primary care providers treating adults (≥18 years) with chronic pain ≥3 months, excluding cancer, palliative, and end-of-life care.

**When CONSIDERING long-term opioid therapy**
- Set realistic goals for pain and function based on diagnosis (e.g., walk around the block).
- Check that non-opioid therapies are tried and optimized.
- Discuss benefits and risks (e.g., addiction, overdose) with patient.
- Evaluate risk of harm or misuse.
  - Discuss risk factors with patient.
  - Check prescription drug monitoring program (PDMP) data.
  - Check urine drug screen.
- Set criteria for stopping or continuing opioids.
- Assess baseline pain and function (e.g., PEG scale).
- Schedule initial reassessment within 1-4 weeks.
- Prescribe short-acting opioids using lowest dosage or product labeling; match duration to scheduled reassessment.

**If RENEWING without patient visit**
- Check that return visit is scheduled ≤3 months from last visit.

**When REASSESSING at return visit**
- Continue opioids only after confirming clinically meaningful improvements in pain and function without significant risks or harm.
- Assess pain and function (e.g., PEG), compare results to baseline.
- Evaluate risk of harm or misuse:
  - Observe patient for signs of over-sedation or overdose risk.
    - If yes, taper dose.
  - Check PDMP.
  - Check for opioid use disorder (if indicated, e.g., difficulty controlling use).
    - If yes, refer for treatment.
- Check that non-opioid therapies are optimized.
- Calculate opioid dosage morphine milligram equivalent (MME).
  - If ≥30 MME/day total (≥50 mg hydrocodone, ≥80 mg oxycodone), increase frequency of follow-up; consider offering buprenorphine.
  - Avoid ≥90 MME/day total (≥90 mg hydrocodone, ≥160 mg oxycodone), or carefully justify; consider specialist referral.
- Schedule reassessment at regular intervals (≥3 months).

**EVIDENCE ABOUT OPIOID THERAPY**
- Benefits of long-term opioid therapy for chronic pain are well supported by evidence.
- Short-term benefits (e.g., analgesia) are acceptably balanced across the patient’s individual health needs.
- Potential long-term benefits for low back pain, hardcore pain, and pain management.

**NON-OPIOID THERAPIES**
- Use alone or combined with opioids, as indicated:
  - Non-opioid medications (e.g., NSMs, TCAs, SNRIs, and benzodiazepines).
  - Physical interventions (e.g., exercise therapy, acupuncture).
  - Behavioral treatments (e.g., CBT).
  - Procedures (e.g., intrathecal corticosteroids).

**EVALUATING RISK OF HARM OR MISUSE**
- Known risk factors include:
  - Illicit drug use, prescription drug use for nonmedical reasons.
  - History of substance use disorder or treatment.
  - Mental health conditions (e.g., depression, anxiety).
  - Sleep-disordered breathing.
  - Concurrent benzodiazepine use.

**Urinary drug testing**
- Check to confirm absence of prescribable substances and for uncontrolled prescription drug or illicit substance use.

**Prescription drug monitoring program (PDMP)**
- Check for opioids prescribed from other sources.

**ASSESSING PAIN & FUNCTION USING PEG SCALE**

PEG score = [mean of 3 individual question scores (30% improvement from baseline is clinically meaningful)]

1. What number from 0 - 10 best describes your pain in the past week?
   - 0 = "no pain", 10 = "worst you can imagine"

2. What number from 0 - 10 describes how disturbing the past week, pain has interfered with your enjoyment of life?
   - 0 = "not at all", 10 = "complete interference"

3. What number from 0 - 10 describes how disturbing the past week, pain has interfered with your general activity?
   - 0 = "not at all", 10 = "complete interference"
CDC Guideline for Prescribing Opioids for Chronic Pain

FEASIBILITY for PRIMARY CARE PROVIDERS

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Clinical Professor and Chief
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Hughes M & Katherine G Blake Endowed Professor
Depts of Medicine and Anesthesia & Pain Medicine
University of Washington, Seattle WA

NIH Pain Consortium
Centers of Excellence in Pain Education

UW Medicine
PAIN MEDICINE
IS IT POSSIBLE TO CHANGE YOUR PRACTICE?

• Feasible
  o Capable of being done or carried out;
  o Capable of being used or dealt with successfully;
  o Reasonable
  o Likely
    – Merriam Webster Dictionary

• Imperative
  o “Above all, do no harm” – Hippocrates

• Practical
  o “Vision without execution is hallucination” – Thomas Edison
Unintentional Prescription Opioid Involved Overdoses
Washington State

Source: Jennifer Sabel PhD Epidemiologist, WA State Department of Health, May 2016
KEY ELEMENTS

Guideline Compliant Care

- Team approach with pain champion(s)
- Shared clinic policies and assessment tools
  - Consensus for a pain “standard of care”
  - Focus on functional gains
  - Address opioid safety and efficacy
- Emphasis on a multimodal treatment approach
- Address substance use disorders and have referral options with a defined referral process
- Patient self-management classes and support
- Longer visits
- After visit care with Case or Care managers
- Web-based program with Tele-mentoring and E-consults

Courtesy of Dr. Melissa Weimer, OHSU
IMPLEMENTING BEST PRACTICES

1. Highstreet Medical Center, Springfield, MA
2. Boston Medical Center’s TOPCARE, MA
3. Community Hospital of the Monterey Peninsula, CA
4. Duke University Health System, NC
5. Group Health (Seattle) Learning Health Systems, WA
6. Kaiser Permanente’s Southern California Medical Group
7. Lancaster General Health/Penn Medicine, PA
8. Medford Oregon’s Opioid Prescribing Group, OR
9. Oregon Health & Science University’s PROPEL clinic, OR
10. Priority Health (HMO), Lansing, MI
11. Rhode Island/Miriam Hospitals
12. Temple University Hospital Systems, PA
13. VA/DoD Health systems nationwide: Connecticut, Minneapolis, Indianapolis, Seattle/Puget Sound
14. University of Washington and its UW Neighborhood Clinics

Will you add your clinical practice here: ______________?
AN URGENCY

Guideline Compliant Care

• Epidemic in America
  o Influenza Pandemic (1918: 500,000)
  o HIV (1981-2005: 550,000)
  o Prescription Opioid ODs (1999-2014: 165,000, and counting)

• Families and communities are suffering from opioid-related accidental deaths and addictions

• Health care expenses can be reduced with multidisciplinary chronic pain care:
  o Reduce direct costs 70%
  o Reduce disability costs 40%

\[Gatchel 2006\]
HOW?

Guideline Compliant Care

Understand Safe & Effective Chronic Pain Treatments

1. For Clinicians
   - CDC Guidelines, & your state’s guidelines
   - UW’s “COPE REMS” www.coperems.org

2. For Patients and Families
   - YouTube: “Understand Pain”, “Brainman Stops His Opioids”
   - Stanford’s: Chronic Pain Self Management Program
   - U. Michigan’s: fibroguide.com
   - American Chronic Pain Association

3. For Policymakers and Payers
   - National Pain Strategy
   - IOM 2011 Report: Relieving Pain in America
Step 2: Assess

✓ *Does your practice:*

- Use registries and regular review based on dose (MME)
- Measure and track function (e.g. PEG) and mood (e.g. PHQ's, GAD, PC-PTSD) when prescribing chronic opioids
- Screen for Misuse/Addiction Risks (e.g. ORT, SOAPP, DIRE)*
- Adhere to monitoring policies and procedures: PDMP, UDT
- Enter Care Agreements & Informed Consent re benefits & harms
- Screen for Medical Risks: e.g. sleep apnea, benzodiazepine use
- Follow protocols for OD high risk/naloxone prescribing
- Have Buprenorphine licensees? And actually prescribe?
- Process for interprofessional referrals? (CBT, PT/OT, Rehab, Addiction)

*widely used, though poor predictive validity
WHO?

Guideline Compliant Care

• You, confident of your care provider relational skills, compassion, and capacity to learn and deliver best-practice pain care.

• Your multidisciplinary/interprofessional pain care team...

• ...Enabled and enlarged by policies and processes that your organization’s medical and administrative leadership will need to support.

• Your patients and families, since successful chronic pain treatment requires patient engagement and self-management.
WHEN?

Transformation is a process, it doesn’t happen all at once

- Start with a sense of urgency
- Identify your team and its champions
- Engage & communicate goals within your group and throughout the larger organization
- Prioritize internal and external obstacles, and introduce steps that overcome initial barriers
- Get quick wins
- Build IT and other resources needed to support change
- Regularly review and sustain processes
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   and cost-effectiveness of comprehensive pain programs for chronic nonmalignant

   Transforming Prevention, Care, Education, and Research. Washington, DC: The
   National Academies.


6. Dowell D, Haegerich TM, Chou R. CDC guideline for prescribing opioids for
To Ask a Question

- **Using the Webinar System**
  - “Click” the Q&A tab at the top left of the webinar tool bar
  - “Click” in the white space
  - “Type” your question
  - “Click” ask

- **On the Phone**
  - Press Star (*) 1 to enter the queue
  - State your name
  - Listen for the operator to call your name
  - State your organization and then ask your question
Thank you for joining!

Centers for Disease Control and Prevention
Atlanta, Georgia
http://emergency.cdc.gov/coca
Today’s webinar will be archived

When: A few days after the live call

What: All call recordings (audio, webinar, and transcript)

Where: On the COCA Call webpage
http://emergency.cdc.gov/coca/calls/2016/callinfo_062216.asp
All continuing education (CME, CNE, CEU, CECH, ACPE, CPH, and AAVSB/RACE) for COCA Calls are issued online through the CDC Training & Continuing Education Online system (http://www.cdc.gov/TCEOnline/).

Those who participated in today’s COCA Call and who wish to receive continuing education should complete the online evaluation by July 21, 2016 with the course code WC2286. Those who will participate in the on demand activity and wish to receive continuing education should complete the online evaluation between July 22, 2016 and June 21, 2018 will use course code WD2286.

Continuing education certificates can be printed immediately upon completion of your online evaluation. A cumulative transcript of all CDC/ATSDR CE’s obtained through the CDC Training & Continuing Education Online System will be maintained for each user.
# Save-the-Dates

Mark your calendar for the upcoming opioid prescribing calls

<table>
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<th>Call No.</th>
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<td>Guideline for Prescribing Opioids for Chronic Pain</td>
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Upcoming COCA Call registration is not required

Identification and Care of Patients with Hantavirus Disease

- Date: Thursday, June 30, 2016
- Time: 2:00 – 3:00 pm (Eastern)
- Presenters:
  - Dr. Barbara Knust – CDC
  - Dr. Gregory Mertz – University of New Mexico
  - Dr. Michelle Harkins – University of New Mexico

http://emergency.cdc.gov/coca
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CDC Clinician Outreach and Communication Activity
https://www.facebook.com/CDCClinicianOutreachAndCommunicationActivity
PRESCRIBING OPIOIDS FOR CHRONIC PAIN

ADAPTED FROM CDC GUIDELINE

Opioids can provide short-term benefits for moderate to severe pain. Scientific evidence is lacking for the benefits to treat chronic pain.

IN GENERAL, DO NOT PRESCRIBE OPIOIDS AS THE FIRST-LINE TREATMENT FOR CHRONIC PAIN (for adults 18+ with chronic pain > 3 months excluding active cancer, palliative, or end-of-life care).

BEFORE PRESCRIBING

1. ASSESS PAIN & FUNCTION
   - Use a validated pain scale. Example: PEG scale where the score = average 3 individual question scores (30% improvement from baseline is clinically meaningful).
   - Q1: What number from 0 – 10 best describes your PAIN in the past week? (0 = “no pain”, 10 = “worst you can imagine”)
   - Q2: What number from 0 – 10 describes how, during the past week, pain has interfered with your ENJOYMENT OF LIFE? (0 = “not at all”, 10 = “complete interference”)
   - Q3: What number from 0 – 10 describes how, during the past week, pain has interfered with your GENERAL ACTIVITY? (0 = “not at all”, 10 = “complete interference”)

2. CONSIDER IF NON-OPIOID THERAPIES ARE APPROPRIATE
   - Such as: NSAIDs, TCAs, SNRIs, anti-convulsants, exercise or physical therapy, cognitive behavioral therapy.

3. TALK TO PATIENTS ABOUT TREATMENT PLAN
   - Set realistic goals for pain and function based on diagnosis.
   - Discuss benefits, side effects, and risks (e.g., addiction, overdose).
   - Set criteria for stopping or continuing opioid. Set criteria for regular progress assessment.
   - Check patient understanding about treatment plan.

4. EVALUATE RISK OF HARM OR MISUSE. CHECK:
   - Known risk factors: illegal drug use; prescription drug use for nonmedical reasons; history of substance use disorder or overdose; mental health conditions; sleep-disordered breathing.
   - Prescription drug monitoring program data (if available) for opioids or benzodiazepines from other sources.
   - Urine drug screen to confirm presence of prescribed substances and for undisclosed prescription drug or illicit substance use.
   - Medication interactions. AVOID CONCURRENT OPIOID AND BENZODIAZEPINE USE WHENEVER POSSIBLE.

WHEN YOU PRESCRIBE

START LOW AND GO SLOW. IN GENERAL:

- Start with immediate-release (IR) opioids at the lowest dose for the shortest therapeutic duration. IR opioids are recommended over ER/LA products when starting opioids.
- Avoid ≥ 90 MME/day; consider specialist to support management of higher doses.
- If prescribing ≥ 50 MME/day, increase follow-up frequency; consider offering naloxone for overdose risk.
- For acute pain: prescribe < 3 day supply; more than 7 days will rarely be required.
- Counsel patients about safe storage and disposal of unused opioids.
See below for MME comparisons. For MME conversion factors and calculator, go to TurnTheTideRx.org/treatment.

50 MORPHINE MILLILGRAM EQUIVALENTS (MME)/DAY:
- 50 mg of hydrocodone (10 tablets of hydrocodone/acetaminophen 5/300)
- 33 mg of oxycodone (~2 tablets of oxycodone sustained-release 15mg)

90 MORPHINE MILLILGRAM EQUIVALENTS (MME)/DAY:
- 90 mg of hydrocodone (18 tablets of hydrocodone/acetaminophen 5/300)
- 60 mg of oxycodone (4 tablets of oxycodone sustained-release 15mg)

AFTER INITIATION OF OPIOID THERAPY

ASSESS, TAILOR & TAPER
- Reassess benefits/risks within 1-4 weeks after initial assessment.
- Assess pain and function and compare results to baseline. Schedule reassessment at regular intervals (≤ 3 months).
- Continue opioids only after confirming clinically meaningful improvements in pain and function without significant risks or harm.
- If over-sedation or overdose risk, then taper. Example taper plan: 10% decrease in original dose per week or month. Consider psychosocial support.
- Tailor taper rates individually to patients and monitor for withdrawal symptoms.

TREATING OVERDOSE & ADDICTION
- Screen for opioid use disorder (e.g., difficulty controlling use; see DSM-5 criteria). If yes, treat with medication-assisted treatment (MAT). MAT combines behavioral therapy with medications like methadone, buprenorphine, and naltrexone. Refer to findtreatment.samhsa.gov. Additional resources at TurnTheTideRx.org/treatment and www.hhs.gov/opioids.
- Learn about medication-assisted treatment (MAT) and apply to be a MAT provider at www.samhsa.gov/medication-assisted-treatment.
- Consider offering naloxone if high risk for overdose: history of overdose or substance use disorder, higher opioid dosage (≥ 50 MME/day), concurrent benzodiazepine use.

ADDITIONAL RESOURCES

CDC GUIDELINE FOR PRESCRIBING OPIOIDS FOR CHRONIC PAIN:
www.cdc.gov/drugoverdose/prescribing/guideline.html

SAMHSA POCKET GUIDE FOR MEDICATION-ASSISTED TREATMENT (MAT):
store.samhsa.gov/MATguide

NIDAMED: www.drugabuse.gov/nidamed-medical-health-professionals

ENROLL IN MEDICARE: go.cms.gov/pecos
Most prescribers will be required to enroll or validly opt out of Medicare for their prescriptions for Medicare patients to be covered. Delay may prevent patient access to medications.

JOIN THE MOVEMENT

of health care practitioners committed to ending the opioid crisis at TurnTheTideRx.org.
Checklist for prescribing opioids for chronic pain
For primary care providers treating adults (18+) with chronic pain ≥ 3 months, excluding cancer, palliative, and end-of-life care

CHECKLIST

When CONSIDERING long-term opioid therapy

☐ Set realistic goals for pain and function based on diagnosis (eg, walk around the block).
☐ Check that non-opioid therapies tried and optimized.
☐ Discuss benefits and risks (eg, addiction, overdose) with patient.
☐ Evaluate risk of harm or misuse.
  • Discuss risk factors with patient.
  • Check prescription drug monitoring program (PDMP) data.
  • Check urine drug screen.
☐ Set criteria for stopping or continuing opioids.
☐ Assess baseline pain and function (eg, PEG scale).
☐ Schedule initial reassessment within 1–4 weeks.
☐ Prescribe short-acting opioids using lowest dosage on product labeling; match duration to scheduled reassessment.

If RENEWING without patient visit

☐ Check that return visit is scheduled ≤ 3 months from last visit.

When REASSESSING at return visit

Continue opioids only after confirming clinically meaningful improvements in pain and function without significant risks or harm.

☐ Assess pain and function (eg, PEG); compare results to baseline.
☐ Evaluate risk of harm or misuse:
  • Observe patient for signs of over-sedation or overdose risk.
  – If yes: Taper dose.
  • Check PDMP.
  • Check for opioid use disorder if indicated (eg, difficulty controlling use).
  – If yes: Refer for treatment.
☐ Check that non-opioid therapies optimized.
☐ Determine whether to continue, adjust, taper, or stop opioids.
☐ Calculate opioid dosage morphine milligram equivalent (MME).
  • If ≥ 50 MME/day total (≥ 50 mg hydrocodone; ≥ 33 mg oxycodone), increase frequency of follow-up; consider offering naloxone.
  • Avoid ≥ 90 MME/day total (≥ 90 mg hydrocodone; ≥ 60 mg oxycodone), or carefully justify; consider specialist referral.
☐ Schedule reassessment at regular intervals (≤ 3 months).

REFERENCE

EVIDENCE ABOUT OPIOID THERAPY

• Benefits of long-term opioid therapy for chronic pain not well supported by evidence.
• Short-term benefits small to moderate for pain; inconsistent for function.
• Insufficient evidence for long-term benefits in low back pain, headache, and fibromyalgia.

NON-OPIOID THERAPIES

Use alone or combined with opioids, as indicated:
• Non-opioid medications (eg, NSAIDs, TCAs, SNRIs, anti-convulsants).
• Physical treatments (eg, exercise therapy, weight loss).
• Behavioral treatment (eg, CBT).
• Procedures (eg, intra-articular corticosteroids).

EVALUATING RISK OF HARM OR MISUSE

Known risk factors include:
• Illegal drug use; prescription drug use for nonmedical reasons.
• History of substance use disorder or overdose.
• Mental health conditions (eg, depression, anxiety).
• Sleep-disordered breathing.
• Concurrent benzodiazepine use.

Urine drug testing: Check to confirm presence of prescribed substances and for undisclosed prescription drug or illicit substance use.

Prescription drug monitoring program (PDMP): Check for opioids or benzodiazepines from other sources.

ASSESSING PAIN & FUNCTION USING PEG SCALE

PEG score = average 3 individual question scores (30% improvement from baseline is clinically meaningful)

Q1: What number from 0–10 best describes your pain in the past week?
0 = “no pain”, 10 = “worst you can imagine”

Q2: What number from 0–10 describes how, during the past week, pain has interfered with your enjoyment of life?
0 = “not at all”, 10 = “complete interference”

Q3: What number from 0–10 describes how, during the past week, pain has interfered with your general activity?
0 = “not at all”, 10 = “complete interference”

TO LEARN MORE

www.cdc.gov/drugoverdose/prescribing/guideline.html

March 2016
# Summary: Progressive Opioid Prescribing Guidelines for a Safer Ohio

<table>
<thead>
<tr>
<th>From Emergency Department &amp; Acute Care Facilities</th>
<th>For Chronic, Non-Terminal Pain</th>
<th>For Acute Pain Outside of Emergency Department</th>
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<tr>
<td><strong>Release Date</strong></td>
<td>April 2012</td>
<td>October 2013</td>
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<tr>
<td><strong>Specific Goals</strong></td>
<td>Stop inappropriate prescribing from ED &amp; Urgent Care Centers</td>
<td>Ensure long-term patient safety</td>
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<tr>
<td><strong>Prescribing Limitations</strong></td>
<td>No more than 3 days</td>
<td>“Press pause” at ≥ 80 mg MED</td>
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<td></td>
<td>No long-acting opioids</td>
<td>Caution with co-prescribing of benzodiazepines</td>
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<tr>
<td><strong>OARRS Recommendations</strong></td>
<td>Check prior to prescribing</td>
<td>Check every patient at ≥ 80mg MED</td>
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<tr>
<td></td>
<td></td>
<td>By law, OARRS check required for &gt;12 weeks</td>
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<tr>
<td><strong>Key Additional Clinical Steps</strong></td>
<td>Referral to Primary Care</td>
<td>12 weeks a trigger for re-evaluation of pain, function, medication effectiveness &amp; SBIRT</td>
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<td></td>
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<td>2 weeks a trigger for re-evaluation</td>
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<td><strong>Associated Metrics</strong></td>
<td>TBD: Survey by ODH; Additional data &amp; trends through OARRS</td>
<td># patients at ≥ 80mg MED</td>
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<tr>
<td></td>
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<td>Proportion of prescriptions ≥ 120 pills/prescription</td>
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<td>Proportion and # patients on both opioid &amp; benzodiazepines</td>
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<td><strong>Aggregate Quarterly Measures for all guidelines</strong></td>
<td>% of prescriptions with associated OARRS check</td>
<td># patients receiving new opioid prescription for acute pain</td>
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<td># patients receiving opioids per quarter</td>
<td>See aggregate quarterly measures</td>
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<td><strong>Sample Patient Vignette</strong></td>
<td>Patients who are narcotic-seeking, doctor shopping and/or diverting opioids</td>
<td>Patients with addiction or tolerance to medications; those at greater risk for harm</td>
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<tr>
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<td>Patients seeking pain relief following injuries or procedures</td>
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</tbody>
</table>

**Acronyms:** ED=Emergency Department; MED=Morphine Equivalent Daily Dose; OARRS=Ohio Automated Rx Reporting System (prescription drug monitoring program); SBIRT=Screening, Brief Intervention, and Referral to Treatment for substance abuse

Created December, 2015
Reasons to discontinue opioids include, but are not limited to:

- Existence of severe unmanageable adverse effects
- Serious non-adherence to the treatment plan
- Evidence of illegal or unsafe behaviors
- Misuse suggestive of addiction to prescribed medication
- Lack of therapy effectiveness
- A desire on the part of the patient to discontinue therapy
- Decreased level of pain in stable patients
- Goals of treatment are not met

**Recommendations for Discontinuing and Tapering:**

- Decisions regarding tapering schedule should be made on an individual basis, faster or slower tapering may be warranted.
- Complete evaluation of the current treatment plan, co-occurring psychological conditions and other relevant factors should be completed prior to initiation of the taper.
- Clear written and verbal instructions should be given to patients and their families to educate them about the slow taper protocol to minimize withdrawal symptoms.
- For patients who are at high risk to engage in aberrant behaviors (e.g., parasuicidal acts, dealing/selling medications, those with severe impulse control disorders), tapering opioids in a primary care setting is not appropriate. Those patients should be referred to an addiction or pain specialist.
- Patients with complicated withdrawal symptoms should be referred to a pain specialist or a center specializing in withdrawal treatment.
- Patients who develop an opioid addiction should be referred for substance use disorder treatment. While opioid prescribing should stop and withdrawal assessed if illicit drug use is clear, opioid agonist therapy, tapering, or discontinuation of opioid therapy should be decided after the consultation.

**Withdrawal**

Opioid withdrawal can develop within hours of drug cessation. While the effects of withdrawal are unlikely to be life threatening in patients without significant comorbidities, it can be quite uncomfortable. Signs and symptoms of withdrawal may include gastrointestinal symptoms (e.g., abdominal cramping, nausea, vomiting, diarrhea), musculoskeletal symptoms (e.g., myalgias, arthralgias, muscle spasms), anorexia, yawning, lacrimation, salivation, rhinorrhea, piloerection, insomnia, anxiety, irritability, dysphoria and manifestations of sympathetic hyperactivity such as diaphoresis, tachycardia, fever, mydriasis or mildly elevated blood pressures. In patients with significant comorbidities, withdrawal should be medically managed.

According to Mattick & Hall (1996), medically managed withdrawal is successful to the degree that the patient:

- Is physiologically stable
- AVOIDS hazardous medical consequences of withdrawal
- EXPERIENCES minimal discomfort
- REPORTS being treated with dignity and respect
- COMPLETES the tapering protocol (e.g., no longer requires medication for withdrawal symptom management)
- ENGAGES in continuing care for substance use disorder

**Patient Education**

Patient education is essential to successfully taper opioids. Clear written and verbal instructions should be given to patients and families to educate them about the rapid and slow taper protocols that will minimize withdrawal symptoms, as well as the proper way to dispose of opioids. From the outset of treatment, providers should reassure patients that they will work with them to manage their pain.
Tapering Factors and Protocol

One objective of opioid tapering is to maintain patient safety and comfort during initial and successive phases of the taper. This includes patient preparation to discontinue opioids in order to minimize withdrawal symptoms (e.g., muscle and joint aches, nausea, anxiety, runny nose).

Remember the following patient-specific factors as you begin a new taper:

- In general, the longer the patient has been on opioids, the slower the taper should be.
- Do not treat withdrawal symptoms with opioids or benzodiazepines after discontinuing opioids. More information available at: agencymeddirectories.wa.gov/Files/OpioidGdline.pdf
- Consider tapering opioids in patients who have received regularly scheduled opioids at greater than the recommended starting doses for more than a few days.
- Patients taking opioids on a non-daily, as-needed basis can typically have their medication discontinued without tapering.
- Take into consideration patient-specific factors when deciding whether the patient needs to taper and at what rate. Consider risk of precipitating withdrawal, patient’s level of anxiety about discontinuing opioids, duration of opioid therapy, medical and psychological comorbidities, and clinical need for rapid taper.
- Patients who develop a true allergic hypersensitivity reaction to their opioid should have therapy discontinued immediately.
- Taper by 20-50 percent per week (of original dose) for patients who are not addicted. The goal is to minimize adverse/withdrawal effects.
- The rapid detoxification literature indicates that a patient needs 20 percent of the previous day’s dose to prevent withdrawal symptoms.
- Consider using adjuvant agents such as antidepressants to manage irritability and sleep disturbance, or antiepileptics for neuropathic pain. More information available at: agencymeddirectories.wa.gov/Files/OpioidGdline.pdf
- The patient on fentanyl should be rotated to a different opioid, either long-acting morphine or methadone. Once the patient is converted, the same guidelines will apply.

Alternately, with the availability of transdermal fentanyl 12 mcg/hr patches, some patients may be tapered down on fentanyl patches and then given a brief supply of oral short-acting opioids to complete the taper.

Clonidine 0.1 mg two or three times daily may be used to control many withdrawal symptoms if there are no contraindications. Supplemental medications will often be required as clonidine will not address all withdrawal symptoms (e.g., muscle and joint aches, nausea, diarrhea, anxiety).

More information is available in the Consultation and Referral fact sheet for patients who are unable to tolerate the taper as described.

Suggested Tapers for...

- Methadone:
  - Decrease dose by 20-50 percent per day until you reach 30 mg/day
  - Then decrease by 5 mg/day every three to five days to 10 mg/day
  - Then decrease by 2.5 mg/day every three to five days
- Morphine SR/CR:
  - Decrease dose by 20-50 percent per day until you reach 45 mg/day
  - Then decrease by 15 mg/day every two to five days
- Oxycodone CR:
  - Decrease dose by 20-50 percent per day until you reach 30 mg/day
  - Then decrease by 10 mg/day every two to five days

Ohio Emergency and Acute Care Facility
Opioids and Other Controlled Substances (OOCS) Prescribing Guidelines
Background Document

ACKNOWLEDGEMENT
The Professional Education Workgroup of the Governor’s Cabinet Opiate Action Team (GCOAT) would like to acknowledge the hard work of the Washington State Emergency Department Provider Workgroup for providing the source material featured in this document. More information on the Washington State prescribing guidelines can be accessed here: http://www.washingtonacep.org/painmedication.htm.

BACKGROUND
According to the Centers for Disease Control and Prevention (CDC), the misuse and abuse of prescription painkillers was responsible for more than 475,000 emergency department visits in 2009, a number that nearly doubled in just five years. The Drug Abuse Warning Network (DAWN) reports that in 2009, a quarter of all drug-related ED visits and over half of ED visits for drug abuse or misuse, an estimated 1,079,683 ED visits, involved the nonmedical use of prescription drugs, over-the-counter medicines, or other types of pharmaceuticals.

As the use of OOCS for chronic non-cancer pain has increased, so have unintended consequences related to this usage. From 1999 to 2010, drug overdose deaths increased 372% in Ohio from 327 to 1,544, the highest number on record. This is equivalent to 4 Ohioans dying every day or one Ohioan dying every 6 hours. Unintentional drug overdose continues to be the leading cause of injury-related death in Ohio, ahead of motor vehicle traffic crashes, suicide and falls. Prescription drugs are involved in most of the unintentional drug overdoses and have largely driven the rise in deaths. Prescription opioids (pain medications) are associated with more fatal overdoses than any other prescription or illegal drug including cocaine and heroin combined. Nearly half (45 percent*) of fatal unintentional overdoses involved prescription opioids in Ohio in 2010, compared to 39 percent in 2009. In addition, on average from 2007-09, there were 19 ED visits each day in Ohio for unintentional drug overdose amounting to nearly 2,000 per year. At least 1 in 5 (19%) of these are related to opioids.

Another consequence of OOCS use is the burgeoning need for treatment specific for opioid addiction. According to the Ohio Department of Alcohol and Drug Addiction Services (ODADAS) there has been a more than 300% increase in the number of admissions for substance abuse treatment for opioids in Ohio from 1993 to 2008.

These guidelines are intended to help emergency and other acute care facilities reduce the inappropriate use of OOCS while preserving their vital role of treating patients with emergent medical conditions. These guidelines were developed by the Emergency Department Opiate Prescribing Guidelines Committee convened by the Ohio Department of Health and the Ohio Department of Aging under the Professional Education Work Group of the Governor’s Cabinet Opiate Action Team (GCOAT). The Guidelines Committee included
representation of state medical and health care associations, emergency departments, acute care facilities, state agencies and boards, as well as individual physicians, nurses, physician assistants and other clinicians.

INTRODUCTION

Ideally, a primary care provider and/or pain management specialist should provide pain management for a patient. The American Pain Society’s guidelines recommend that all patients on chronic opioid therapy should have a clinician who accepts primary responsibility for their overall medical care.

Emergency physicians and other emergency clinicians are highly trained to look for and treat emergency medical conditions and use their best judgment when treating pain. However, emergency clinicians are not in a position to monitor the effects of chronic opioid therapy and therefore should generally try to avoid prescribing opioids for the treatment of chronic pain. Repeated prescribing of OOCS from the emergency department/acute care facility is a counter-therapeutic enabling action that delays patients from seeking appropriate pain control and monitoring. Prescribing OOCS for chronic pain from the emergency department/acute care facility should be limited to only the immediate treatment of acute exacerbations of pain associated with objective findings of uncontrolled pain. Chronic pain treatment requires monitoring the effects of the medication on pain levels and patient’s level of functioning. The emergency clinician’s one-time relationship with the patient does not allow proper monitoring of the patient’s response to chronic opioids. The absence of prescription opioid monitoring places the patient at risk for harm from excess or unnecessary amounts of these medications. However, for a variety of reasons including a patient’s lack of insurance and/or access to care, emergency departments and other acute care facilities routinely serve patients seeking relief from acute pain or exacerbation of chronic pain the recommended practices set forth in this document are intended as guidance for staff members in emergency departments and acute care facilities in their provision of patient care. These guidelines are not intended to take the place of clinical judgment, which should always be utilized in order to provide the most appropriate care to meet the unique needs of each patient.

The Emergency Medical Treatment and Active Labor Act (EMTALA), passed as part of the Consolidated Omnibus Budget Reconciliation Act of 1986, also referred to as “the COBRA law”, requires the emergency physician to evaluate every patient who presents to the ED. The EMTALA definition of a medical emergency makes reference to severe pain as a symptom that should be investigated that may be resultant to an emergency medical condition. EMTALA does not state that severe pain is an emergency medical condition. The Center for Medicare Services (CMS) requires the hospital to have policies for accessing a patient’s pain and documenting the assessment. Emergency medical clinicians should use their professional judgment when prescribing or withholding opioid treatment. There is no obligation under EMTALA to treat a patient’s pain in the emergency facility.
GUIDELINES

1. OOCS for acute pain, chronic pain and acute exacerbations of chronic pain will be prescribed in emergency/acute care facilities only when appropriate based on the patient’s presenting symptoms, overall condition, clinical examination and risk for addiction.

Screening for risk for addiction:

Conducting a brief (three to five questions) screening for risk for addiction can serve as an early intervention and reduce risky alcohol and drug use before it leads to more severe consequences or dependence. This screening, often called Screening, Brief Intervention and Referral to Treatment (SBIRT), can serve as an early intervention and connect individuals with substance dependence to treatment options. Screening patients including adolescents in emergency settings makes it possible to use their substance use-related injury or illness as motivation to change. There are many evidence based SBIRT screening tools available, which can be adapted easily to almost any health or specialty setting. With proper training, brief interventions can be delivered in emergency settings by physicians, nurses, case managers, crisis counselors, social workers, or a chemical dependency professional. The CRAFFT is recommended as a tool for screening adolescents for potential substance misuse or abuse. (Screening tool examples – Attachment A)

The Washington State Screening, Brief Intervention, Referral and Treatment (WASBIRT) Program has proven the effectiveness of providing brief intervention, brief therapy and treatment referral to high-risk substance abusers who frequent hospital EDs, with substantial declines in illicit drug use. Among high-risk users of prescription opioids, at six-month follow-up, there was a 41% reduction in days of drug use (from 12.8 to 7.5 days) for individuals who received only a brief intervention, and a 54% reduction (from 14.4 days to 6.6 days) for individuals who received a brief intervention, followed by brief therapy or chemical dependency treatment.

Patients with a history of or current substance abuse are at increased risk of developing opioid addiction when prescribed opioids for acute pain. Emergency medical providers should ask the patient about a history of or current substance abuse prior to prescribing opioid medication for the treatment of acute pain. A non-opioid regime should be offered to emergency facility patients with acute pain and a history of or current substance abuse. A history of or current substance abuse should not exclude an emergency facility patient from being prescribed opioids for acute pain but it should prompt a discussion with the patient about the potential for addiction. Consideration should be given to prescribing a smaller quantity of opioid medication, with follow up opioid monitoring in patients with a history of or current substance abuse. The patient’s primary care provider should be notified of their patients’ treatment. Emergency medical clinicians wishing to perform more extensive screening for the risk of opioid addiction are encouraged to use tools such as those included in Attachment A.

a. Doses of OOCS for routine chronic pain or acute exacerbations of chronic pain will typically NOT be given in injection (IM or IV) form.

- Parenteral opioids should be avoided for the treatment of chronic pain in emergency/acute care facilities because of their short duration and potential for addictive euphoria. Generally, oral
opioids are superior to parenteral opioids in duration of action and provide a gradual decrease in the level of pain control. When there is evidence or reasonable suspicion of an acute pathological process causing the acute exacerbation of chronic pain then parenteral opioids may be appropriate. Under special circumstances intravenous or intramuscular opioids may be administered in the emergency/acute care facility when an emergency care plan is coordinated with the patient’s primary care provider.

b. Prescriptions for chronic pain will typically NOT be provided if the patient has either presented with the same problem or received an OOCS prescription from another provider within the last month.

- Chronic pain treatment requires monitoring the effects of the medication on pain levels and patient’s level of functioning. The emergency medical provider is not capable of providing this monitoring. The absence of prescription opioid monitoring places the patient at risk for harm from excess or unnecessary amounts of these medications. The emergency medical clinician’s one-time relationship with the patient does not for allow proper monitoring of the patient’s response to chronic opioids.

c. IV Demerol (Meperidine) for acute or chronic pain is discouraged.

- Demerol® use has been to shown induce seizures through the accumulation of a toxic metabolite with a long half-life that is excreted by the kidney. Demerol® has the lowest safety margin for inducing seizures of any opioid. Numerous reviews of Meperidine’s pharmacodynamic properties have failed to demonstrate any benefit to using Meperidine in the treatment of common pain problems.\textsuperscript{xi xii}

2. Emergency medical clinicians should not provide:

a. Replacement prescriptions for OOCS that were lost, destroyed or stolen.

- Patients misusing controlled substances frequently report their prescriptions were lost or have been stolen. Pain specialists routinely stipulate in pain agreements with patients that lost or stolen controlled substances will not be replaced. Most pain agreements between chronic pain patients and physician states that prescriptions will not be replaced. Emergency/acute care facilities should institute a policy not to replace prescriptions that are requested on the basis of being lost, stolen, or destroyed.

b. Replacement doses of Suboxone, Subutex or Methadone for patients in a treatment program.

- Methadone should not be prescribed or administered as opioid substitution therapy from the Emergency/acute care facility. Methadone has a long half-life and patients who are part of a daily methadone treatment program that miss a single dose will not go into opioid withdrawal for 48 hours. Opioid withdrawal is not an emergency medical condition. The emergency medical provider should consider that the patient may have been discharged from a methadone treatment program for noncompliance or is not enrolled. The emergency medical provider or admitting physician should call the methadone treatment program if the patient is admitted to the hospital. The patient’s status in the methadone treatment program should be verified and the patient’s methadone dose should be documented for continued dosing while hospitalized.
Suboxone and Subutex are narcotic medications used for the treatment of opioid dependence and are available only by prescription. According to the Medication-Assisted Treatment Policy Statement\textsuperscript{xiii} from the Ohio Department of Alcohol and Drug Addiction Services (ODADAS) these medications must be taken under a doctor's care as prescribed and require monitoring as part of an overall treatment program. Replacement doses of these medications should not be prescribed in an emergency or acute care setting.

c. Long-acting or controlled-release opioids (such as OxyContin\textsuperscript{®}, fentanyl patches, and methadone).

- Long acting opioids should not be prescribed from the emergency/acute care facility because this treatment requires monitoring which the emergency medical provider cannot provide. Methadone and oxycodone are involved in more unintentional opioid overdose deaths than any other prescription opioid.\textsuperscript{xiv}

3. Prior to making a final determination regarding whether a patient will be provided a prescription for OOCS the emergency clinician or facility should:

a. Request a photo ID to confirm the identity of the patient. If no photo ID is available, the emergency or other acute care facility should photograph the patient for inclusion in the facility medical record.

- Patients who lack picture ID should be photographed. Photographing the patient improves patient safety by providing a means of positive ID of the person treated. Patients who present to multiple emergency/acute care facilities and provide false information to obtain controlled substances often do not provide photo ID. This is done to hide the patient’s history of multiple visits from the emergency/acute care facility staff. Photographing patients may dissuade them from providing false information because the photograph provides documentation they presented to the emergency/acute care facility. Triage documentation provided to the emergency clinician should indicate if the patient provided ID.

- Patients abusing or diverting prescriptions sometimes provide a fictitious name when registering in the emergency/acute care facility and receive prescriptions under the fictitious name. Ohio law does not require the patient to present an ID when filling a controlled substance prescription. However, emergency/acute care facility staff members are required pursuant to Ohio Revised Code (ORC) 2921.22(A)(1), to contact local law enforcement if they suspect a felony is being committed: “Except as provided in division (A) (2) of this section, no person, knowing that a felony has been or is being committed, shall knowingly fail to report such information to law enforcement authorities.” Attempting to obtain controlled substances by fraud, deceit, or subterfuge is a felony under Ohio Revised Code (ORC) 2925.22 - Deception to obtain a dangerous drug.\textsuperscript{http://codes.ohio.gov/orc/2925.22}

b. Search the Ohio Automated Rx Reporting System (OARRS) database.\textsuperscript{https://www.ohiopmp.gov/portal/Default.aspx}

- OARRS was established in 2006 as a tool to assist healthcare professionals in providing better treatment for patients with medical needs while quickly identifying drug-seeking behaviors. An OARRS Prescription History Report can assist in assuring that a patient is getting the appropriate
drug therapy and is taking their medication as prescribed. Prescribers, pharmacists and officers of law enforcement agencies whose primary mission involves enforcing prescription drug laws can register for an OARRS account. Registered prescribers may also permit delegates to register for an OARRS account in order to request Prescription History Reports on the prescriber’s behalf.

House Bill 93 of the 129th General Assembly required professional licensing boards to adopt administrative rules specifying when a health care provider is required to review information in OARRS. These rules can be accessed here:

- Medical Board: [http://codes.ohio.gov/oac/4731-11-11](http://codes.ohio.gov/oac/4731-11-11)
- Nursing Board: [http://codes.ohio.gov/oac/4723-9-12](http://codes.ohio.gov/oac/4723-9-12)
- Pharmacy Board: [http://codes.ohio.gov/oac/4729-5-20](http://codes.ohio.gov/oac/4729-5-20)
- Dental Board: [http://codes.ohio.gov/oac/4715-6-01](http://codes.ohio.gov/oac/4715-6-01)

4. **Emergency/acute care facilities should maintain a list of clinics that provide primary care for patients, as needed.**

   - Emergency/acute care facility staff should encourage patients to seek primary care in non-emergent care settings. Emergency clinicians and other emergency/acute care facility staff should counsel over utilizing patients on appropriate venues for their symptoms and provide patients with an up-to-date list of clinic resources. The emergency clinician should not feel compelled to prescribe opioids due to the patient’s lack of a primary care provider.

5. **Prior to making a final determination regarding whether a patient will be provided a prescription for an OOCS, the emergency clinician is encouraged to do the following, as indicated:**

   a. Contact the patient’s routine provider who usually prescribes their opioid or other controlled substance.

      - An emergency/acute care facility’s care coordination program (if available) should contact the patient’s primary care providers to notify them of the patient’s over utilization of the emergency/acute care facility and formulate an emergency care plan. Providing prescriptions for OOCS for chronic pain when the primary care provider is not available for a consultation is discouraged. When the patient does not have a primary care provider it is recommended that an emergency care plan be created by the emergency clinician. This plan should stress the importance of seeing a primary care provider for chronic medical conditions and chronic pain management. The emergency care plan should be filed in the patient’s medical record.

   b. Request a consultation from their hospital’s palliative or pain service (if available) to see the patient in the emergency department.

      - Palliative care focuses on patients of all ages with a chronic disorder – whether an illness, condition, or injury – that adversely affects daily functioning or reduces life expectancy. The main goals of palliative care are to prevent and relieve suffering and to enable the best quality of life possible for patients and their families, no matter what the stage of the disorder, the need for other treatments, or the setting in which care is delivered.” If an emergency/acute care clinician has access to a palliative or pain service a consultation can provide additional options for patients with chronic pain.
c. Request medical and prescription records from other hospitals, provider’s offices, etc.

- The exchange of medical information between emergency medical providers who have treated the patient is HIPAA compliant. Sharing patient visit information between urgent care centers and emergency departments is also encouraged.

- The HIPAA Privacy Rule\textsuperscript{xvi} allows doctors, nurses, hospitals, laboratory technicians, and other health care providers to share protected health information, such as X-rays, laboratory and pathology reports, diagnoses, and other medical information for treatment purposes without the patient’s authorization. These treatment communications may occur orally or in writing, by phone, fax, e-mail, or otherwise. This includes sharing the information to consult with other providers to treat a different patient, or to refer the patient. For more information visit: www.hhs.gov/ocr/privacy/hipaa/understanding/coveredentities/usesanddisclosuresfortpo.html

d. Request that the patient sign a “pain agreement” that outlines the expectations of the emergency clinician with regard to future prescriptions for OOCS.

- A pain agreement is a signed document between a medical provider and a patient that includes conditions under which a patient is prescribed OOCS for chronic pain. The agreement typically identifies patient responsibilities and explains the potential for and consequences of misuse and addiction. (Example Pain Agreements—Attachment B)

6. Emergency/acute care facilities should use available electronic medical resources to coordinate the care of patients who frequently visit the facility, allowing information exchange between emergency/acute care facilities and other community care providers.

Information sharing regarding visits to emergency/acute care facilities can identify patients with multiple emergency/acute care facility visits. This allows the emergency clinician to appropriately treat the patient and work to prevent drug-seeking behavior. See HIPAA information above in 5c.

7. Except in rare circumstances, prescriptions for OOCS should be limited to a three-day supply. Most conditions seen in the emergency/acute care facility should resolve or improve within a few days. Continued pain needs referral to the primary care provider or specialist for re-evaluation.

Large prescriptions promote a longer period of time to elapse before the patient’s pain control and function can be evaluated by a physician. Large prescriptions also increase the potential for diversion and abuse. Opioid prescriptions for exacerbations of chronic pain from the emergency/acute care facility are discouraged. Chronic pain patients should obtain opioid prescriptions from a single opioid prescriber that monitors the patient’s pain relief and functioning. Prior to prescribing opioids an OARRS search should be conducted to determine the patient’s prescription history and to verify recent prescriptions for pain medications are from the patients primary opioid prescriber and not from multiple prescribers (see Section 3b. above). If OARRS is unavailable, the patient’s pharmacy should be contacted to determine the prescription history. No opioids should be prescribed if the patient misrepresents the opioid prescriptions. Providing false information in an effort to obtain prescription opioids is an aberrant medication taking behavior that can signal an addiction problem. Such misrepresentation is unlawful in Ohio (ORC 2925.22).
Prescribing pain medicine from the emergency/acute care facility for chronic pain is a form of unmonitored opioid therapy, which is not safe. Opioid medications should be prescribed only after determining that alternative therapies do not deliver adequate pain relief. In exceptional circumstances, the emergency medical provider may prescribe opioid medication for acute exacerbations of chronic pain, when the following safeguards are followed:

a. Only prescribe enough opioid pain medication to last until the patient can contact their primary prescriber, with a maximum of a three day supply of opioid (rather than a quantity sufficient to last until the patient’s next scheduled appointment). The emergency medical clinician should attempt to contact the primary opioid prescriber prior to prescribing any opioids. If the patient’s primary opioid provider feels further opioid pain medicine is appropriate, it can be prescribed by that provider, during office hours.

b. The patient’s primary opioid prescriber is contacted first to approve further opioids for the patient. If approved, a limited prescription can be prescribed from the emergency/acute care facility to last until the patient is able to see their primary opioid prescriber. This reinforces the idea that patients should obtain pain medicine only from the primary opioid provider.

Urine drug testing for illicit and prescribed substances requires a working knowledge of the potential for false positive and false negative results and the need for confirmatory testing. A discussion on the limitations of urine testing is beyond the scope of this guideline. Other chronic pain guidelines address urine drug testing in detail. Urine drug testing has the potential to identify patients using illicit drugs or not taking medications they report being prescribed. **Both of these situations are grounds for denying further opioid prescriptions.** Clinicians knowledgeable at interpreting the results of the urine drug testing are encouraged to perform urine drug testing before prescribing opioids for exacerbations of chronic pain.

8. Each patient leaving the emergency/acute care facility with a prescription for OOCS should be provided with detailed information about the addictive nature of these medications and the potential dangers of misuse. This information may be included in the Discharge or Follow-Up Care Instructions or another handout.

Discharge/Follow-Up Care instructions can serve both as guidance and as a warning to patients regarding the addictive nature of these medications and the importance of proper use. These instructions should include information about the dangers of sharing medications, combining medications and combining medications with alcohol. A statement should also be included about the proper storage and disposal of narcotics and other controlled medications. (**Example Discharge/Follow-Up Care Instructions – Attachment C**)

9. Emergency/acute care facilities should provide a patient handout that reflects the above guidelines and clearly states the facility position regarding the prescribing of opioids and other controlled substances.

In order to help reduce improper utilization of emergency/acute care facilities and to clearly inform patients of the facility’s position regarding the prescription of OOCS, facilities are encouraged to provide the patient handout to patients after the medical screening to explain under what circumstances OOCS will and will not be provided. For a sample patient handout please visit:
Disclaimer: This document should not be used to establish any standard of care. No legal proceeding, including medical malpractice proceedings or disciplinary hearings, should reference a deviation from any part of this document as constituting a breach of professional conduct. These guidelines are only an educational tool. Clinicians should use their own clinical judgment and not base clinical decisions solely on this document.

References

1 CDC MMWR. Vital Signs: Overdoses of Prescription Opioid Pain Relievers --- United States, 1999—2008. [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6043a4.htm?s_cid=mm6043a4_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6043a4.htm?s_cid=mm6043a4_w)


3 Ohio Department of Health, Office of Vital Statistics.

4 Ohio Hospital Association.

5 Ohio Department of Alcohol and Drug Addiction Services.


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14 CDC MMWR. Vital Signs: Overdoses of Prescription Opioid Pain Relievers --- United States, 1999—2008. [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6043a4.htm?s_cid=mm6043a4_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6043a4.htm?s_cid=mm6043a4_w)

15 Pain Treatment Topics; SBL Ltd.; Glenview, Illinois, USA; © 2005-2012, all rights reserved.


Ohio Emergency and Acute Care Facility
Opioids and Other Controlled Substances (OOCS) Prescribing Guidelines

These guidelines are to provide a general approach in the prescribing of OOCS. They are not intended to take the place of clinical judgment, which should always be utilized to provide the most appropriate care to meet the unique needs of each patient.

1. OOCS for acute pain, chronic pain and acute exacerbations of chronic pain will be prescribed in emergency/acute care facilities only when appropriate based on the patient’s presenting symptoms, overall condition, clinical examination and risk for addiction.
   a. Doses of OOCS for routine chronic pain or acute exacerbations of chronic pain will typically NOT be given in injection (IM or IV) form.
   b. Prescriptions for chronic pain will typically NOT be provided if the patient has either previously presented with the same problem or received an OOCS prescription from another provider within the last month.
   c. IV Demerol (Meperidine) for acute or chronic pain is discouraged.

2. Emergency medical clinicians will not routinely provide:
   a. Replacement prescriptions for OOCS that were lost, destroyed or stolen.
   b. Replacement doses of Suboxone, Subutex or Methadone for patients in a treatment program.
   c. Long-acting or controlled-release opioids (such as OxyContin®, fentanyl patches, and methadone).

3. Prior to making a final determination regarding whether a patient will be provided a prescription for OOCS, the emergency clinician or facility:
   a. Should search the Ohio Automated Rx Reporting System (OARRS) database (https://www.ohiopmp.gov/portal/Default.aspx) or other prescription monitoring programs, per state rules.
   b. Reserves the right to request a photo ID to confirm the identity of the patient. If no photo ID is available, the emergency or other acute care facility should photograph the patient for inclusion in the facility medical record.
   c. Reserves the right to perform a urine drug screen or other drug screening.

4. Emergency/acute care facilities should maintain an updated list of clinics that provide primary care and/or pain management services for patients, as needed.

5. Prior to making a final determination regarding whether a patient will be provided a prescription for an OOCS, the emergency clinician should consider the following options:
   a. Contact the patient’s routine provider who usually prescribes their OOCS.
   b. Request a consultation from their hospital’s palliative or pain service (if available), or an appropriate sub-specialty service.
   c. Perform case review or case management for patients who frequently visit the emergency/acute care facilities with pain-related complaints.
   d. Request medical and prescription records from other hospitals, provider’s offices, etc.
   e. Request that the patient sign a pain agreement that outlines the expectations of the emergency clinician with regard to appropriate use of prescriptions for OOCS.

6. Emergency/acute care facilities should use available electronic medical resources to coordinate the care of patients who frequently visit the facility, allowing information exchange between emergency/acute care facilities and other community-care providers.

7. Except in rare circumstances, prescriptions for OOCS should be limited to a three-day supply. Most conditions seen in the emergency/acute care facility should resolve or improve within a few days. Continued pain needs referral to the primary care physician or appropriate specialist for re-evaluation.

8. Each patient leaving the emergency/acute care facility with a prescription for OOCS should be provided with detailed information about the addictive nature of these medications, the potential dangers of misuse and the appropriate storage and disposal of these medications at home. This information may be included in the Discharge Instructions or another handout.

9. Following the medical screening, emergency/acute care facilities should provide a patient handout that reflects the above guidelines and clearly states the facility position regarding the prescribing of opioids and other controlled substances.

Approved by GCOAT on April 18, 2012 (Revised 1/15/2014)
Ohio Emergency and Acute Care Facility
Opioids and Other Controlled Substances (OOCS)
PRESCRIBING GUIDELINES

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   b. Reserves the right to request a photo ID to confirm the identity of the patient. If no photo ID is available, the emergency or other acute care facility should photograph the patient for inclusion in the facility medical record.
   c. Reserves the right to perform a urine drug screen or other drug screening.

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5. Prior to making a final determination regarding whether a patient will be provided a prescription for an OOCS, the emergency clinician should consider the following options:
   a. Contact the patient’s routine provider who usually prescribes their OOCS.
   b. Request a consultation from their hospital’s palliative or pain service (if available), or an appropriate sub-specialty service.
   c. Perform case review or case management for patients who frequently visit the emergency/acute care facilities with pain-related complaints.
   d. Request medical and prescription records from other hospitals, provider’s offices, etc.
   e. Request that the patient sign a pain agreement that outlines the expectations of the emergency clinician with regard to appropriate use of prescriptions for OOCS.

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Endorsed by:
Ohio Chapter of the American College of Emergency Physicians,
Ohio Association of Health Plans, Ohio Association of Physician Assistants,
Ohio Bureau of Workers’ Compensation, Ohio Hospital Association,
Ohio Osteopathic Association, Ohio Pharmacists Association,
Ohio State Medical Association

Development Facilitated by:
Ohio Department of Health, Ohio Department of Aging
Ohio Guideline for the Management of Acute Pain Outside of Emergency Departments

Preface: This guideline provides a general approach to the outpatient management of acute pain. It is not intended to take the place of clinician judgement, which should always be utilized to provide the most appropriate care to meet the unique needs of each patient. This guideline is the result of the work from the Governor's Cabinet Opiate Action Team (GCOAT) and the workgroup on Opioids and Other Controlled Substances (OÖCS).

Introduction
In 2014, 2,482 individuals in Ohio died from an unintentional opioid-related overdose – more than a four-fold increase in 10 years. Unintentional opioid overdose has become one of the leading causes of injury-related death in Ohio over the past decade. To respond to this challenge, public health and health care leaders have committed to helping healthcare providers better serve their patients with pain, while reducing the potential for overdose and death. As part of the Governor's Cabinet Opiate Action Team (GCOAT), the workgroup on Opioids and Other Controlled Substances (OÖCS) was charged with developing guidelines for the safe, appropriate and effective prescribing of self-administered medications for pain. The two previously released guidelines are:

- Ohio Emergency and Acute Care Facility Opioids and Other Controlled Substances Prescribing Guidelines [Released 2012; Revised 2014]
- Guidelines for Prescribing Opioids for the Treatment of Chronic, Non-Terminal Pain 80mg of a Morphine Equivalent Dose (MED) "Trigger Point" [Released 2013]

Purpose
This third guideline is focused on the management of acute pain and the prescribing of self-administered medications for acute pain, delineating a standardized process that includes key checkpoints for the clinician to pause and take additional factors into consideration.

Definition of Acute Pain
For this guideline, acute pain is defined as pain that normally fades with healing, is related to tissue damage and significantly alters a patient's typical function. Acute pain is expected to resolve within days to weeks; pain present at 12 weeks is considered chronic and should be treated accordingly. This guideline may not apply to acute pain resulting from exacerbations of underlying chronic conditions.

Assessment and Diagnosis of Patient Presenting with Pain
For assessing patients presenting with acute pain, in addition to a proper medical history and physical exam, initial considerations should include:

- Location, intensity and severity of the pain and associated symptoms
- Quality of pain e.g. somatic (sharp or stabbing), visceral (ache or pressure) and neuropathic pain (burning, tingling or radiating)?
- Psychological factors, including personal and/or family history of substance use disorder

A specific diagnosis should be made, when appropriate, to facilitate the use of an evidence-based approach to treatment.

Develop a Plan
Upon determining the symptoms fit the definition of acute pain, both the provider and patient should discuss the risks/benefits of both pharmacologic and non-pharmacologic therapy. The provider should educate and develop a treatment plan together with the patient that includes:

- Measureable goals for the reduction of pain
- Use of both non-pharmacologic and pharmacologic therapies, with a clear path for progression of treatment
- Mutually understood expectations for the degree and the duration of the pain during therapy
- Goal: Improvement of function to baseline or pre-injury status as opposed to complete resolution of pain

Treatment of Acute Pain
While these guidelines provide a pathway for the management of acute pain, not every patient will need each option and care should be individualized.

Non-Pharmacologic Treatment
Non-pharmacologic therapies should be considered as first-line therapy for acute pain unless the natural history of the cause of pain or clinical judgment warrants a different approach. These therapies often reduce pain with fewer side effects and can be used in combination with non-opioid medications to increase likelihood of success. Examples may include, but are not limited to:

- Ice, heat, positioning, bracing, wrapping, splints, stretching and directed exercise often available through physical therapy
- Massage therapy, tactile stimulation, acupuncture/air-pressure, chiropractic adjustment, manipulation, and osteopathic neuromuscular care
- Biofeedback and hypnotherapy

Non-Opioid Pharmacologic Treatment
Non-opioid medications should be used with non-pharmacologic therapy. When initiating pharmacologic therapy, patients should be informed on proper use of medication, importance of maintaining other therapies and expectation for duration and degree of symptom improvement. Treatment options, by the quality of pain, are listed below.
Somatic Pain
- Acetaminophen
- Non-steroidal anti-inflammatory drugs (NSAIDs)
- Corticosteroids
  Alternatives include the following: gabapentin/pregabalin, skeletal muscle relaxants, serotonin-norepinephrine reuptake inhibitors, selective serotonin reuptake inhibitors and tricyclic antidepressants.

Visceral Pain
- Acetaminophen
- Non-steroidal anti-inflammatory drugs (NSAIDs)
- Corticosteroids
  Alternatives include the following: diclofenac, skeletal muscle relaxants, serotonin-norepinephrine reuptake inhibitors, topical anesthetics and tricyclic antidepressants.

Neuropathic Pain
- Gabapentin/pregabalin
- Serotonin and norepinephrine reuptake inhibitors
- Tricyclic antidepressants
  Alternatives include the following: other antiepileptics, baclofen, bupropion, low-concentration capsaicin, selective serotonin reuptake inhibitors and topical lidocaine.

Opioid Pharmacologic Treatment
In general, reserve opioids for acute pain resulting from severe injuries or medical conditions, surgical procedures, or when alternatives (non-opioid options) are ineffective or contraindicated. Short-term opioid therapy may be preferred as a first line therapy in specific circumstances such as the immediate post-operative period. In most cases, opioids should be used as adjuncts to additional therapies, rather than alone. It is critical that healthcare providers communicate with one another about a patient's care if the patient may be receiving opiate prescriptions from more than one provider to ensure optimum and appropriate pain management. The following are recommendations for the general use of opioids to manage acute pain:
- Appropriate risk screening should be completed (e.g. age, pregnancy, high-risk psychosocial environment, personal or family history of substance use disorder).
- Provide the patient with the least potent opioid to effectively manage pain. A morphine equivalence chart should be used if needed.
- Prescribe the minimum quantity needed with no refills based on each individual patient, rather than a default number of pills.
- Consider checking Ohio Automated Rx Reporting System (OARRS) for all patients who will receive an opiate prescription. (Note: An OARRS report is required for most prescriptions of seven days or more.)
- Avoid long-acting opioids (e.g. methadone, oxycodone ER, fentanyl).
- Use caution with prescribing opioids with patients on medications causing central nervous system depression (e.g. benzodiazepines and sedative hypnotics) or patients known to use alcohol, as combinations can increase the risk of respiratory depression and death.
- Discuss with the patient a planned wean off opioid therapy, concomitant with reduction or resolution of pain.
- Discuss proper secure storage and disposal of unused medication to reduce risks to the patient and others.
- Remind the patient that it is both unsafe and unlawful to give away or sell opioid medication, including unused or leftover medication.

Pain Reevaluation
Key Checkpoint: Reevaluation of patients who receive opioid therapy for acute pain will be considered if opioid therapy will continue beyond 14 days. This reevaluation may be through an office visit or phone call based on the discretion of the provider.

For patients with persisting pain, providers should reevaluate the initial diagnosis and consider the following:
- Pain characteristics (consider using a standardized tool [e.g. Oswestry Disability Index])
- Treatment methods used
- Reason(s) for continued pain
- Additional management options, including consultation with a specialist

Additional Checkpoint:
For patients with pain unresolved after 6 weeks, providers should repeat an assessment and determine whether treatment should be adjusted. Referral to guidelines on chronic pain management may be helpful at this point, although chronic pain is defined as pain persisting for longer than 12 weeks.

References:
Ohio Guidelines for Prescribing Opioids for the Treatment of Chronic, Non-Terminal Pain 80 mg of a Morphine Equivalent Daily Dose (MED) "Trigger Point"

Preface: These guidelines address the use of opioids for the treatment of chronic, non-terminal pain. "Chronic pain" means pain that has persisted after reasonable medical efforts have been made to relieve the pain or cure its cause and that has continued, either continuously or episodically, for longer than three continuous months. The guidelines are intended to help health care providers review and assess their approach in the prescribing of opioids. The guidelines are points of reference intended to supplement and not replace the individual prescriber's clinical judgment. The 80 mg MED is the maximum daily dose at which point the prescriber's actions are triggered; however, this 80 mg MED trigger point is not an endorsement by any regulatory body or medical professional to utilize that dose or greater.

Introduction
Recent analysis by the Centers for Disease Control and Prevention (CDC) shows that "patients with mental health and substance use disorders are at increased risk for nonmedical use and overdose from prescription painkillers as well as being prescribed high doses of these drugs." Drug overdose deaths increased for the 11th consecutive year in 2010. Nearly 60% of the deaths involved pharmaceuticals, and opioids were involved in nearly 75%. Researchers also found that drugs prescribed for mental health conditions were involved in over half. These findings appear consistent with research previously published in the Annals of Internal Medicine that concluded that "patients receiving higher doses of prescribed opioids are at an increased risk for overdose, which underscores the need for close supervision of these patients" (Dunn, et al., 2010).

Non-Opioid Therapies First
Health care providers are not obligated to use opioids when a favorable risk-benefit balance cannot be documented. Providers should first consider non-pharmacologic and non-opioid therapies. Providers should exercise the same caution with tramadol as with opioids and must take into account the medication's potential for abuse, the possibility the patient will obtain the medication for a nontherapeutic use or distribute it to other persons, and the potential existence of an illicit market for the medication.

Avoid Long-Term and Co-Prescribing
Providers must be vigilant to the wide range of potential adverse effects associated with long-term opioid therapy and misuse of extended-release formulations. That vigilance and detailed attention has to be present from the outset of prescribing and continue for the duration of treatment. Providers should avoid starting a patient on long-term opioid therapy when treating chronic pain. Providers should also avoid prescribing benzodiazepines with opioids as it may increase opioid toxicity, add to sleep apnea risk, and increase risk of overdose deaths and other potential adverse effects.

Press Pause
Providers can further minimize the potential for prescription drug abuse/ misuse and help reduce the number of unintentional overdose deaths associated with pain medications by recognizing times to "press pause" in response to certain "trigger points." This pause allows providers to reassess their compliance with accepted and prevailing standards of care. The 80 mg Morphine Equivalent Daily Dose (MED) "trigger point" is one such time.

Ensure Patient Safety
Providers treating chronic, non-terminal pain patients who have received opioids equal to or greater than 80 mg MED for longer than three continuous months should strongly consider doing the following to optimize therapy and help ensure patient safety:
- Reestablish informed consent, including providing the patient with written information on the potential adverse effects of long-term opioid therapy.
- Review the patient's functional status and documentation, including the 4A's of chronic pain treatment
  o Activities of daily living,
  o Adverse effects,
  o Analgesia; and
  o Aberrant behavior
- Review the patient's progress toward treatment objectives for the duration of treatment.
- Utilize CARRS as an additional check on patient compliance.
- Consider a patient pain treatment agreement that may include: more frequent office visits, different treatment options, drug screens, use of one pharmacy, use of one provider for the prescription of pain medications, and consequences for non-compliance with terms of the agreement.
- Reconsider having the patient evaluated by one or more other providers who specialize in the treatment of the area, system, or organ of the body perceived as the source of the pain.

(Released October 2013)
Review Treatment Plan
The 80 MED “trigger point” is an opportunity to review the plan of treatment, the patient’s response to treatment, and any modification to the plan of treatment that is necessary to achieve a favorable risk-benefit balance for the patient’s care. If opioid therapy is continued, further reassessment will be guided by clinical judgment and decision-making consistent with accepted and prevailing standards of care. The “trigger point” also provides an opportunity to further assess addiction risk or mental health concerns, possibly using Screening, Brief Intervention, and Referral to Treatment (SBIRT) tools, including referral to an addiction medicine specialist when appropriate.

For providers treating acute exacerbation of chronic, non-terminal pain, clinical judgment may not trigger the need for using the full array of reassessment tools.

Providers treating patients with acute care conditions in the emergency department or urgent care center should refer to the Ohio Emergency and Acute Care Facility Opioids and Other Controlled Substances Prescribing Guidelines. [http://www.healthy.ohio.gov/ed/guidelines](http://www.healthy.ohio.gov/ed/guidelines)

(Released October 2013)
EXPANDING OHIO'S OPIOID PRESCRIBING GUIDELINES

Strengthening Our Fight Against Prescription Drug Abuse

In its ongoing efforts to combat drug abuse and save lives, the Governor's Cabinet Opiate Action Team established in 2011 has developed new prescribing guidelines for the outpatient management of acute pain. The acute guidelines follow previous prescribing guidelines for emergency departments and the management of chronic pain. All three guidelines were developed in conjunction with clinical professional associations, healthcare providers, state licensing boards and state agencies. The prescribing guidelines are designed to prevent "doctor shopping" for prescription opioids, to urge prescribers to first consider non-opioid therapies and pain medications, to reduce leftover opioids that can be diverted for abuse, and to encourage prescribers to check Ohio's Automated Rx Reporting System before prescribing opioids to see what other controlled medications a patient might already be taking.

OHIO'S OPIOID PRESCRIBING GUIDELINES

- **Emergency Department/Acute Care Facility Opioid Prescribing Guidelines:** In April 2012, the Governor's Cabinet Opiate Action Team released Emergency and Acute Care Facility Opioid and Other Controlled Substances Prescribing Guidelines to reduce "doctor shopping" for prescription pain medications that could be abused or sold illegally, to encourage emergency department clinicians to check Ohio's Automated Rx Reporting System to see a patient's other prescriptions for controlled medications, to urge prescribers to limit the quantity of opioids prescribed, and to refer patients to a primary care provider or specialist for evaluation, treatment and monitoring of continuing pain.

- **Opioid Prescribing Guidelines for Treatment of Chronic Pain:** In October 2013, the Governor's Cabinet Opiate Action Team released Opioid Prescribing Guidelines for Treatment of Chronic, Non-Terminal Pain to ensure the safety of patients on high daily doses of opioids for chronic pain lasting longer than 12 weeks, and to urge prescribers to check the Ohio Automated Rx Reporting System to see a patient's other prescriptions for controlled medications.

- **Opioid Prescribing Guidelines for Treatment of Acute Pain:** In January 2016, the Governor's Cabinet Opiate Action Team released Guidelines for the Management of Acute Pain Outside of Emergency Departments to encourage non-opioid therapies and pain medications - when appropriate - for the management of acute pain expected to resolve within 12 weeks, to urge prescribers to check the Ohio Automated Rx Reporting System to see a patient's other prescriptions for controlled medications, to encourage clinicians to prescribe the minimum quantity of opioid pills needed, to discourage automatic refills of opioid prescriptions, to help reduce the number of leftover opioids that could be diverted or abused, and to recommend the reevaluation of patients prescribed opioids at certain checkpoints.

OHIO'S MULTI-PRONGED APPROACH TO FIGHT DRUG ABUSE

Ohio's opioid prescribing guidelines complement its multi-pronged approach to tackling the oversupply of prescription opioids, preventing prescription drug abuse before it starts, treating those who fall prey to prescription drug addiction, and utilizing naloxone to reverse drug overdoses and save lives.
- **Cutting the Pill Supply:** Too many pills are available on the street for illicit use. From the crack down on pill mills, to the development of acute opioid prescribing guidelines, to enhancements to the Board of Pharmacy’s Ohio Automated Rx Reporting System, Ohio is making progress in reducing opioid over-prescribing. From 2012 to 2014, the number of opioid doses dispensed to Ohioans decreased by almost 42 million.

- **Preventing Drug Abuse Before it Starts:** Research shows that children are 50 percent less likely to use drugs when parents or other trusted adults talk with them about the risks of drug use. Ohio’s youth drug prevention program, *Start Talking!*, provides parents, teachers and community leaders with simple tools to have these conversations. Nearly 50,000 parents, 5,000 school principals and administrators, and all of Ohio’s school districts, have signed up to receive *Start Talking!* tips.

- **Providing Treatment and Recovery Support to Those in Need:** Ensuring that Ohioans have access to treatment and recovery support such as stable housing, employment services and relapse prevention is critical to Ohio’s efforts to treat addiction as a chronic disease. Ohio has allocated $2.5 million for recovery housing, an investment that will ultimately result in 900 new beds in treatment facilities. Medication Assisted Treatment is funded in 15 counties as a result of a $5.5 million annual investment, with the goal of reducing relapses. Ohio is getting prison inmates the help they need to overcome addiction and sustain their recovery after release. By extending Medicaid coverage, 400,000 people with mental health conditions and/or addiction are getting access to the care they need.

- **Saving Lives through Naloxone:** Gov. Kasich has signed multiple bills into law that increase access to naloxone – a drug overdose antidote – for use by first responders and families of addicted individuals. Ohio pharmacies with a standing order from a physician can now dispense naloxone over the counter. The 2016-17 state budget dedicates $1 million to make naloxone available to law enforcement and first responders through Ohio’s local health departments.

**BOTTOM LINE:** Ohio’s opioid prescribing guidelines will save lives by preventing “doctor shopping” for prescription pain medication, by urging prescribers and patients to consider non-opioid therapies that reduce the potential for addiction and abuse, by reducing overprescribing that leads to leftover pain medication, and by encouraging prescribers to find out what other controlled medications a patient might already be taking.
STRENGTHENING OHIO’S FIGHT AGAINST PRESCRIPTION DRUG ABUSE

New reforms continue to tackle opiate addiction by strengthening prescription drug oversight, encouraging responsible treatment and preventing overdoses

Since taking office, Governor John R. Kasich has put in place one of the nation’s most aggressive and comprehensive approaches to fight opiate addiction and drug overdoses, including a strong focus on preventing prescription drug abuse. In addition to shutting down pill mills and cracking down on traffickers, Ohio has worked with its medical community to adopt prescribing guidelines to ensure that people in pain get the right treatment without starting down the path toward addiction and overdose. Prescribers and pharmacists now have instant access to the state’s online prescription drug monitoring program so they can quickly identify potential signs of addiction, such as multiple opiate prescriptions from different prescribers, and assist patients in getting help. As a result, Ohio has seen encouraging results as the amount of prescription opiates being dispensed has decreased and fewer individuals are doctor shopping for controlled substances. In Ohio’s continuing effort to find new strategies to fight opiate abuse, Gov. Kasich’s 2016 Mid-Biennium Review proposes additional reforms to strengthen oversight by the Ohio Board of Pharmacy, encourage responsible treatment and prevent overdoses.

**Ensuring Responsible Opiate Addiction Treatment:** Suboxone is a medication that can be part of an effective treatment plan for opiate dependence. In order to ensure Suboxone is appropriately prescribed and to increase the success of this form of treatment, facilities where prescribers treat 30 individuals or more will be subject to licensure by the Board of Pharmacy unless the facility is a licensed hospital or is already certified by the state. This reform also will require physician ownership of office-based opiate treatment clinics along with mandatory background checks for the owners and employees of these facilities.

**Expanding Access to Naloxone:** Expanding availability of naloxone, an effective overdose antidote, has been proven to save lives. In an effort to build on previous measures that increased access to this life-saving antidote through Ohio pharmacies, the MBR proposes to allow facilities that regularly interact with high-risk individuals to have onsite access to naloxone. Facilities that could benefit from this measure include homeless shelters, halfway houses, schools and treatment centers. The measure also will expand the use of funds set aside to purchase naloxone for local communities.
Holding Pharmacy Technicians to Stronger Accountability: Ohio requires professional licensure of all pharmacists and pharmacy interns, but is one of a handful of states that do not register pharmacy technicians. Over the past three years, pharmacy technicians have accounted for more than one-third of all drug theft cases investigated by the Ohio Board of Pharmacy, and the lack of a registration process makes it too easy for a technician who is fired for theft to find new employment with another pharmacy. By requiring Ohio’s estimated 42,000 pharmacy technicians to register with the Board of Pharmacy, Ohio can ensure uniformity in the background-check process and see to it that all technicians maintain a set level of competency through continuing education.

Establishing New Oversight for Purchasing and Distributing Controlled Substances: An exemption in current Ohio law allows sole proprietors – medical doctors, veterinarians, dentists and other healthcare professionals in private practices – to distribute controlled substances to their patients without any oversight from the Ohio Board of Pharmacy. In 2015, exempted prescribers purchased more than 6.5 million doses of controlled substances – including more than 3 million doses of opiates. Licensure by the Board of Pharmacy will provide greater oversight of healthcare providers who store, administer and dispense dangerous drugs from their offices by providing safeguards to prevent theft or misuse of these highly addictive substances.

Limiting High-Volume Prescriptions to Prevent Misuse: Currently, there are no restrictions on the amount of opiate pills that can be dispensed from a single prescription. New reforms will place a 90-day cap on the total days’ supply for any opiate prescription that a patient may receive from a pharmacy and invalidate any opiate prescription that has not been used within 30 days. This reform will help prevent individuals from having too many opioids on hand and deter those who may try to fill another person’s prescription from obtaining access to these highly addictive substances.

Common Sense Regulation for Methadone Clinics: One of the challenges in tackling opiate addiction is the availability of treatment, specifically medication-assisted treatment. Some people travel hours on a daily basis to get a dose of methadone, a well-recognized and proven method of medication-assisted treatment. Methadone is a highly regulated substance, and as a result, new providers have difficulty entering the market. In an effort to allow new methadone clinics to open in the midst of an epidemic where additional treatment capacity is needed, the administration proposes a waiver to the current statutory requirement that a provider be certified in Ohio for two years prior to becoming a methadone clinic. This will allow new operations with experience in other states to open for business here, increasing the availability of treatment options while ensuring these new clinics are under state regulatory control.

BOTTOM LINE: Ohio has made progress in its fight to prevent prescription drug abuse and overdoses, but additional reforms are needed to improve oversight of individuals who have access to prescription opiates, while expanding access to life-saving naloxone and ensuring that those addicted to opiates get the treatment they need.
Emergency and Acute Care Facility Opioid and Other Controlled Substances Prescribing Guidelines (ED Guidelines)

Frequently Asked Questions

What are the Emergency and Acute Care Facility Opioid and Other Controlled Substances (OOCS) Prescribing Guidelines (ED Guidelines)?

Under the leadership of the Governor’s Cabinet Opiate Action Team (GCOAT) Professional Education Workgroup (PEW), Emergency Department Opiate Prescribing Guidelines Committee, the Emergency and Acute Care Facility Opioid and Other Controlled Substances Prescribing Guidelines (ED Guidelines) were developed to help emergency and other acute care facilities reduce inappropriate prescribing of opioid pain medication while preserving their vital role of treating patients with emergent medical conditions. They are intended to provide appropriate clinical guidance for the prescribing of opioids and other controlled substances in the unique acute care environment where the treatment of pain is frequently indicated without the benefit of an established patient-doctor relationship.

Why focus on Opioid Prescribing?

From 1999 to 2010, drug overdose deaths increased 372 percent in Ohio from 327 to 1,544, the highest number on record. This is equivalent to 4 Ohioans dying every day or one Ohioan dying every 6 hours. Unintentional drug overdose continues to be the leading cause of injury-related death in Ohio, ahead of motor vehicle traffic crashes, suicide and falls. Prescription drugs are involved in most of the unintentional drug overdoses and have largely driven the rise in deaths. Prescription opioids (pain medications) are associated with more fatal overdoses than any other prescription or illegal drug including cocaine and heroin combined. Nearly half (45 percent) of fatal unintentional overdoses involved prescription opioids in Ohio in 2010, compared to 39 percent in 2009.

Why focus on Emergency Departments/Acute Care Facilities?

The PEW decided to address the emergency and acute care setting first because of the positive attitude of its clinicians in wanting to get a more consistent approach to pain management in the EDs across Ohio, and because of its more controlled setting and operation. In addition, of the 374,891 ED visits in the U.S. during 1993-2005, 42 percent were related to pain and nearly one-third (29 percent) of patients received an opioid. The overall number of opioid prescriptions written during ED visits for pain increased 14 percent during this time period. Overall, 23 percent of these patients received a prescription for an opioid analgesic in 1993 compared to 37 percent in 2005. (Source: JAMA, Trends in Opioid Prescribing by Race/Ethnicity for Patients Seeking Care in US EDs, 2008)

Treatment of pain is frequently indicated in the emergency/acute care setting, but without the benefit of an established doctor-patient relationship. It is also often conducted in an environment of limited resources including prescriber time and diagnostic information.
In Ohio, 16 percent of fatal overdose victims in 2008 had a history of doctor shopping (filled prescriptions from at least five different prescribers per year) in the two years prior to their death. (Source: OAARS & ODH Vital Statistics). Doctor shopping often occurs in the ED setting. The closure of “pill mills” associated with HB 93 in 2011 may result in increased drug seeking behavior (e.g. doctor shopping) at EDs. For these reasons, the Professional Education Workgroup identified the ED/acute care setting as a critical first step in addressing responsible opioid prescribing practices.

The emergency clinician is not in a position to monitor the effects of chronic opioid therapy and therefore should prescribe opioids for the treatment of chronic pain only in very limited circumstances. Repeated prescribing of OOCS from the emergency department/acute care facility is a counter-therapeutic enabling action that delays patients from seeking appropriate pain control and monitoring. Prescribing OOCS for chronic pain from the emergency department/acute care facility should be limited to only the immediate treatment of acute exacerbations of pain associated with objective findings of uncontrolled pain. Chronic pain treatment requires monitoring the effects of the medication on pain levels and patient’s level of functioning. The emergency clinician’s one-time relationship with the patient does not allow proper monitoring of the patient’s response to chronic opioids. The absence of prescription opioid monitoring places the patient at risk for harm from excess or unnecessary amounts of these medications. However, as emergency departments and other acute care facilities routinely serve patients seeking relief from acute pain or exacerbation of chronic pain the recommended practices set forth in this document are intended as guidance for staff members in emergency departments and acute care facilities in their provision of patient care. 

These guidelines are not intended to take the place of clinical judgment, which should always be utilized in order to provide the most appropriate care to meet the unique needs of each patient.

How were the Guidelines developed in Ohio?

The Guidelines were developed through a multidisciplinary effort headed by the Professional Education Workgroup of the Governor’s Cabinet Opiate Action Team (GCOAT), which involved state medical and health care associations, emergency departments and acute care facilities, state agencies and boards, as well as individual health care professionals. The Professional Education Workgroup is tasked to address provider education around pain management and opioid use, which continues to be a significant need.

A subgroup of the Professional Education Workgroup was formed to develop the guidelines. Endorsing organizations are listed on the final ED Guidelines on the ODH website at http://www.healthyohioprogram.org/ed/guidelines.aspx however the Professional Education Workgroup is an even broader group of interested health care professionals and stakeholders. This group used Washington State’s ED opioid prescribing guidelines as a starting point and then provided Ohio-specific information, expertise and feedback. The Guidelines were developed and approved through consensus.
Who has officially endorsed the Guidelines?

The guidelines are endorsed by Ohio American College of Emergency Physicians, Ohio Association of Health Plans, Ohio Association of Physician Assistants, Ohio Bureau of Workers’ Compensation, Ohio Hospital Association, Ohio Osteopathic Association, Ohio Pharmacists Association, Ohio State Medical Association, and Ohio Bureau of Workers’ Compensation and facilitated by the Ohio Departments of Health and Aging.

Are the ED Guidelines to be considered clinical requirements or standards of care?

The ED Guidelines are not intended to be protocols or requirements for care. They are guidelines. The Guidelines take into account that they are unable to address the myriad circumstances and challenges that may present in the emergency/acute care setting, especially with chronic pain patients and/or individuals impacted by opioid-addiction. Clinical judgment is still the determining factor in prescribing practices. There is growing professional recognition however, that current opioid prescribing practices for chronic pain may not only be ineffective, but may actually have a damaging long-term impact on patients. For example, injured workers who are on long-term or high dose opioid therapy have longer recovery times and resulting workers’ compensation costs than those on lower dose/short-term opioid use or alternative pain management care (Source: Pain Pills Add Cost and Delays to Job Injuries, New York Times, June 3, 2012). In conjunction with the Guidelines, the Professional Education Workgroup recommends ongoing continuing education for emergency/acute care providers who prescribe opioids.

What do we do in rural areas where there are no pain management specialists and/or primary care physicians will no longer take pain patients?

These guidelines are not intended to take the place of clinical judgment, which should always be utilized in order to provide the most appropriate care to meet the unique needs of each patient. While it is generally recognized that a primary care provider or pain management specialist should provide chronic pain management for a patient instead of the emergency/acute care provider, the Professional Education Workgroup recognizes that PCPs or pain specialists are not always available or willing to take on new chronic pain patients. To that end, the guidelines provide an option for the treatment of pain by ED and acute care physicians through the use of pain agreements. These pain agreements typically identify patient responsibilities and explain the potential for and consequences of misuse and addiction. The corresponding ED Guidelines background paper provides more information for clinicians regarding the treatment of chronic pain in the ED/acute care facility including sample pain agreements. This information is posted to the Ohio Department of Health’s web site: http://www.healthyohioprogram.org/ed/guidelines.aspx.

With the closing of Ohio pill mills, won’t the ED Guidelines hurt chronic pain patients who are uninsured or who have no other options for pain management?

The ED Guidelines are not intended to shut the door on people in need of help. They are intended to provide uniform guidance to emergency/urgent care providers about appropriate use of these powerful, highly addictive substances in this specialized care setting that generally does not have the
benefit of a well-established physician/patient relationship. The goal is to break the cycle and prevent additional problems through updated opioid prescribing practices.

While it is generally recognized that a primary care provider or pain management specialist should provide chronic pain management for a patient when necessary instead of the emergency/acute care provider, the Professional Education Workgroup recognizes that PCPs or pain specialists are not always available or willing to take on new chronic pain patients. To that end, the guidelines provide an option for the treatment of pain by ED and acute care physicians through the use of pain agreements. These pain agreements typically identify patient responsibilities and explain the potential for and consequences of misuse and addiction. The corresponding ED Guidelines background paper provides more information for clinicians regarding the treatment of chronic pain in the ED/acute care facility including sample pain agreements. This information is posted to the Ohio Department of Health’s web site: http://www.healthyohioprogram.org/ed/guidelines.aspx.

What is SBIRT?

SBIRT is Screening, Brief Intervention and Referral to Treatment. Conducting a brief (three to five questions) screening for risk for addiction can serve as an early intervention and reduce risky alcohol and drug use before it leads to more severe consequences or dependence. SBIRT can serve as an early intervention and connect individuals with substance dependence to treatment options. Screening patients in emergency settings makes it possible to use their substance use-related injury or illness as motivation to change. There are many evidence based SBIRT screening tools available which can be adapted easily to almost any health or specialty setting. With proper training, brief interventions can be delivered in emergency settings by physicians, nurses, case managers, crisis counselors, social workers, or a chemical dependency professional. Sample tools are available at: http://www.healthyohioprogram.org/ed/guidelines.aspx

Doesn’t EMTALA require emergency providers to treat a patient’s pain in the ED?

The emergency physician is required by law to evaluate an emergency/acute care facility patient who reports pain. The law allows the emergency clinician to use their clinical judgment when treating pain and does not require the use of opioids. The Emergency Medical Treatment and Active Labor Act (EMTALA), passed as part of the Consolidated Omnibus Budget Reconciliation Act of 1986, also referred to as "the COBRA law", does not require the emergency medical clinician to provide pain relief for patients that do not have an emergency medical condition. Once a medical screening exam determines patient does not have an emergency medical condition, there is no obligation under EMTALA to treat a patient’s pain in the emergency facility. The EMTALA definition of a medical emergency makes reference to severe pain as a symptom that should be investigated that may be resultant to an emergency medical condition. EMTALA does not state that severe pain is an emergency medical condition. The Centers for Medicare and Medicaid Services (CMS) requires the hospital to have policies for accessing a patient’s pain and documenting the assessment. EMTALA does not obstruct the emergency medical clinician from applying their professional judgment to withhold opioid treatment of pain for emergency/acute care facility patients without an emergency medical condition.
What are the next steps for the Professional Education Workgroup now that the ED Guidelines are completed?

The next task of the Professional Education Workgroup is to develop consensus-based guidance for responsible opioid prescribing for non-cancer, non-hospice care in more general prescribing settings. This may involve the work of setting a threshold or trigger at which point a specialist referral or additional prescriber training would be required prior to proceeding. This work will assist primary care physicians in knowing when they should treat chronic pain and when a referral to a pain medicine specialist is required. The group is meeting monthly and meetings are open to the public. Should you wish to attend meetings of the Professional Education Workgroup, please contact the Ohio Department of Aging.

What is the Governor’s Cabinet Opiate Action Team?

The Governor’s Cabinet Opiate Action Team (GCOAT) was established under the leadership of the Ohio Department of Alcohol and Drug Addiction Services (ODADAS) in the fall of 2011 to address the continuing epidemic of misuse and abuse and overdose from prescription opioids. The GCOAT consists of five working groups: (1) Treatment—includes Medication Assisted Treatment; (2) Professional Education; (3) Public Education; (4) Enforcement; and (5) Recovery Supports.

What is being done through the GCOAT to assist those who are already addicted to prescription opioids?

The GCOAT’s Treatment Workgroup (TW) is also working to address the treatment needs of opioid addicted Ohioans. Recognizing that the relapse rates for individuals addicted to opioids ranges from 80 – 95 percent without medication assisted treatment, the TW is working to expand effective treatment options for opioid addicted Ohioans. Under the leadership of ODADAS, the TW has developed and is implementing low-dose medication-assisted treatment protocols for the treatment of opioid addiction. More information regarding these protocols and the work of the Treatment Workgroup can be accessed here: http://www.odadas.ohio.gov/public/ContentLinks.aspx?SectionID=e7c37d02-288f-4c68-a51d-3807c218a0a1

For more information on substance abuse treatment, please contact ODADAS at: 1-800-788-7254.
The following organizations were involved in the development of one or more of Ohio’s opioid prescribing guidelines.

- Academy of Medicine of Cleveland & Northern Ohio
- BEACON
- Capitol Action Team LLC
- CareSource
- Cleveland Clinic
- Fairfield Medical Center
- Governors Cabinet Opiate Action Team (GCOAT)
- Governor’s Office of Health Transformation
- Hospice of Dayton
- Mid-Ohio District Nurses Association
- Midwest Care Alliance
- Nationwide Children’s Hospital
- Ohio Academy of Family Physicians
- Ohio Association of Physician Assistants
- Ohio Board of Nursing
- Ohio Bureau of Workers Compensation
- Ohio Chapter, American College of Emergency Physicians
- Ohio Chapter, American College of Surgeons
- Ohio Dental Association
- Ohio Department of Aging
- Ohio Department of Health
- Ohio Department of Job and Family Services
- Ohio Department of Medicaid
- Ohio Department of Mental Health & Addiction Services
- Ohio Department of Public Safety
- Ohio Department of Rehabilitation & Correction
- Ohio Department of Youth Services
- Ohio Foot and Ankle Medical Association
- OhioHealth
- Ohio Healthcare Association
- Ohio Hospice and Palliative Care Organization
- Ohio Hospital Association
- Ohio Nurses Association
- Ohio Orthopaedic Society
- Ohio Osteopathic Association
- Ohio Pain Initiative
- Ohio Pharmacists Association
- Ohio Physical Therapy Association
- Ohio Psychiatric Physicians Association
- Ohio Public Health Association
- Ohio Society of Anesthesiologists
- Ohio Society of Interventional Pain Physicians
- Ohio State Board of Optometry
- Ohio State Chiropractic Association
- Ohio State Dental Board
- Ohio State Medical Association
- Ohio State University College of Dentistry
- Ohio State University College of Nursing
- Ohio State University Wexner Medical Center
- Start Talking!
- State Medical Board of Ohio
- State of Ohio Board of Pharmacy
- Summa Health System
- University Hospitals/Cleveland
Resuming a Course

You can also select a specific resume point using the menu.

If you leave a course before it is completed, you will be prompted upon your return to pick up where you left off.

From the course page for Course 4, you can download a completion certificate if you scored 70% or higher on the final assessment.

The exam is three (3) times.

If you fail the exam on the first two attempts, you will not meet course completion criteria. For Course 4, once you complete the course, the assessment will be made available. You can take the course again if you pass the exam on the first two attempts. If you fail the exam on the third attempt, you will have to take the course again.

The Smart RX Final Assessment

Click the Next button to move forward from a click-and-explore.

Click and Explore

Click to pause.

Each course is the topic of resources included for more learning.

View Learning Cycles

Smart RX Course - What Problems Can Do

Videos

A separate video player appears below video segments. Use it to

search, replay or pause the video.

Click the Next button to move forward from a click-and-explore.

Most relevant to you, you can choose to review the topics by clicking on the video player.

Storytelling.

Click to play.

Mindset Digital

Mindset Digital
Sample Patient Letters and Forms
Dear Patient:

Doctors, nurses, and pharmacists in Ohio are worried about the misuse of pain medicine. State officials are concerned too. We see too many deaths from the misuse of pain medicine.

Every time you fill your prescription for pain medicine, it goes into a registry. Anyone who writes a prescription for pain medicine must check that registry. We all are working together to make sure people get treated for pain safely.

That is why I will talk with you about a plan to treat your pain, including any pain medicines I prescribe for you.

Here are some things we will discuss:

- Your pain level, medicines and treatment.
- Your medical records.
- What happens when you take pain medicine for a long time
- The proper use of your medicines. We want to make sure you safely store them. We do not want anyone else taking your medicines.
- I may need to talk to your other doctors, nurses and dentists about the medicines you take.

I also want you to answer these questions with me:

1. Does your pain prevent you from normal activities?
2. What side effects might happen if you take pain medicine?
3. What signs of unusual behavior do we need to look for?

We may ask you to sign a patient agreement that includes things like:

- Participating in treatments that do not include some types of pain medicine.
- Telling the doctor’s office about other medicines you are taking, and when another doctor gives you a prescription for a new medicine.
- Periodic drug screens
- One pharmacy for prescriptions
- One doctor to prescribe your pain medicine
- What happens if you do not follow this agreement

You may need to see a specialist. This would be a physician who treats the part of the body where you feel pain.

I am concerned about your safety. Call me if you ever think you are addicted to your medicine. You also can call the 1-877-275-6364 toll-free number. Your call is confidential. They will refer you to someone for help. You can call them from Monday through Friday between 8 a.m. and 5 p.m.

I look forward to helping you with your pain.

Sincerely,
Dear Patient:

Doctors, nurses, and pharmacists in Ohio are worried about the misuse of pain medicine. Ohio sees too many deaths from the misuse of prescription pain medicine. That is why I will talk with you about a plan to treat your pain safely.

We will start by talking about:
- Your pain level.
- Your medical history.
- Any history of drug abuse by you or family members.

We will work together to create a pain treatment plan for you. We will discuss things like:
- Ways to treat your pain without prescription pain medicine.
- Other pain medicines you can take.
- How to take prescription pain medicine safely if you need it.
- Limiting the amount of prescription pain medicine you receive to keep you safe.
- Being careful about what other medicine you take with prescription pain medicine.
- Touching base to see how you are doing.

We also will talk about:
- How to safely store your prescription pain medicine so other people cannot take it.
- How to safely throw away pain medicine that you do not use.
- Whether we should sign an agreement that says what you and your doctor will do in order to keep you safe when you are taking a prescription pain medicine.

I care about your safety. That is why I will talk with you about all of these things and work with you to treat your pain safely.

Sincerely,
Attachment B: Sample Pain Agreements

Chronic Pain Agreement

I, _______________________ (patient receiving chronic pain medications), have agreed to correctly use pain medications as part of my treatment for chronic pain. I understand that these medications may not get rid of my pain but may decrease the pain and increase my level of activity that I am able to do each day. I understand that the Pain Management Clinic will deal with my chronic pain and will not deal with any of my other medical conditions.

I understand that __________________will be my pain management provider and the only provider who will be ordering my pain medications for my chronic pain.

I understand that I have the following responsibilities (initial each item you agree to):

_____ I will only take the medications at the amount and frequency as ordered.
_____ I will not increase or change how I take my medications without the approval of my pain management provider.
_____ I will not ask for refills earlier than agreed. I will arrange for refills ONLY during regular office hours. I will make the necessary arrangements before holidays and weekends. _____ I will get all pain medications only at one pharmacy. I will let my pain management provider know if I change pharmacies.

Pharmacy: _________________________ Phone Number: ________________

_____ I will allow my pain management provider to provide a copy of this agreement to my pharmacy.
_____ I will not ask for any pain medications or controlled substances from other providers and will let my pain management provider know of all medications I am taking, including non-legal drugs.
_____ I understand that other physicians should not change doses of my pain medications without first talking to my pain management provider.
_____ I will notify the Pain Management Clinic of any changes to my pain medications made by another provider.
_____ I will let my other health care providers know that I am taking these pain medications and that I have a pain management contract.
_____ In event of an emergency, I will give this same information to emergency department providers.
_____ I will allow my pain management provider to discuss all my medical conditions and treatment details with pharmacists, physicians, or other health care providers who provide my health care for purposes of care coordination.
_____ I will inform my pain management provider of any new medications or medical conditions.
_____ I will protect my prescriptions and medications. I understand that lost or misplaced prescriptions will not be replaced.
_____ I will keep medications only for my own use and will not share them with others. I will keep all medications away from children.
____ In addition, I will do the following (Initial each box):

____ I must make an appointment with a drug and alcohol counselor and bring proof on working with my treatment plan. (Insert Contact Number Here)
____ I must take a drug test at (frequency of) ________________.
____ I agree to pill counts to prove I am using my medications correctly
____ If I fail a drug test I will take the drug test more often at ________________
____ If I fail a drug testing I will be referred to the Medicaid’s Patient Review and Coordination Program that restricts me to certain providers, such as a primary doctor.
____ If I sell my narcotics my name will be referred to the Medicaid fraud unit
____ If I fail all of the above I will be discharged from your care with no notice

Should any of the above not show good faith efforts and your providers feel they can no longer order your pain medications in a safe and effective you may be discharged from our care.

I agree to use only the following providers. I will notify my physician of any changes in my health care and / or changes in my providers.

Provider: _______________  Clinic: _______________  Phone Number: ____________

Provider: _______________  Clinic: _______________  Phone Number: ____________

Patient Signature ________________________________
Sample Patient Contract

Opiate Contract Pain Management Agreement

The purpose of this agreement is to prevent misunderstandings about certain medications you will be taking for pain management. This is to help you and your doctor to comply with the law regarding controlled pharmaceuticals.

_____ I understand that this Agreement is essential to the trust and confidence necessary in a doctor/patient relationship and that my doctor undertakes to treat me based on this Agreement.

_____ I understand that if I break this Agreement, my doctor will stop prescribing these pain control medicines.

_____ In this case, my doctor will taper off the medicine over a period of several days, as necessary, to avoid withdrawal symptoms. Also, a drug-dependence treatment program may be recommended.

_____ I would also be amenable to seek psychiatric treatment, psychotherapy, and/or psychological treatment if my doctor deems necessary.

_____ I will communicate fully with my doctor about the character and intensity of my pain, the effect of the pain on my daily life, and how well the medicine is helping to relieve the pain.

_____ I will not use any illegal controlled substances, including marijuana, cocaine, etc., nor will I misuse or self-prescribe/medicate with legal controlled substances. Use of alcohol will be limited to time when I am not driving, operating machinery and will be infrequent.

_____ I will not share my medication with anyone.

_____ I will not attempt to obtain any controlled medications, including opioid pain medications, controlled stimulants, or anti-anxiety medications from any other doctor.

_____ I will safeguard my pain medication from loss or theft. Lost or stolen medications will not be replaced.

_____ I agree that refills of my prescriptions for pain medications will be made only at the time of an office visit or during regular office hours. No refills will be available during evenings or on weekends.

I agree to use: __________________________________________ (Name of Pharmacy),
Located at: ________________________________________________
Tele number: _____________ for filling my prescriptions for all of my pain medicine.

_____ I authorize the doctor and my pharmacy to cooperate fully with any city, state or federal law enforcement agency, including this state’s Board of Pharmacy, in the investigation of any possible misuse, sale, or other diversion of my pain medication. I authorize my doctor to provide a copy of this
Agreement to my pharmacy, primary care physician and local emergency room. I agree to waive any applicable privilege or right of privacy or confidentiality with respect to these authorizations.

_____ I agree that I will submit to a blood or urine test if requested by my doctor to determine my compliance with my program of pain control medications.

_____ I agree that I will use my medicine at a rate no greater that the prescribed rate and that use of my medicine at a greater rate will result in my being without medication for a period of time.

_____ I will bring unused pain medicine to every office visit.

_____ I agree to follow these guidelines that have been fully explained to me.

All of my questions and concerns regarding treatment have been adequately answered. A copy of this document has been given to me.

This Agreement is entered into on this _____ day of ____________, 20__.

Patient signature: ____________________

Physician signature: ____________________

Witnessed by: _________________________
Sample Patient Contract for Using Opioid Pain Medication in Chronic Pain

This is an agreement between ____________________________ (the patient) and Dr. ____________________________ (the doctor) concerning the use of opioid analgesics (narcotic pain-killers) for the treatment of a chronic pain problem. The medication will probably not completely eliminate my pain, but is expected to reduce it enough that I may become more functional and improve my quality of life.

1. I understand that opioid analgesics are strong medications for pain relief and have been informed of the risks and side effects involved with taking them.

2. In particular, I understand that opioid analgesics could cause physical dependence. If I suddenly stop or decrease the medication, I could have withdrawal symptoms (flu-like syndrome such as nausea, vomiting, diarrhea, aches, sweats, chills) that may occur within 24-48 hours of the last dose. I understand that opioid withdrawal is quite uncomfortable, but not a life-threatening condition.

I understand that if I am pregnant or become pregnant while taking these opioid medications, my child would be physically dependent on the opioids and withdrawal can be life-threatening for a baby.

3. Overdose on this medication may cause death by stopping my breathing; this can be reversed by emergency medical personnel if they know I have taken narcotic pain-killers. It is suggested that I wear a medical alert bracelet or necklace that contains this information.

4. If the medication causes drowsiness, sedation, or dizziness, I understand that I must not drive a motor vehicle or operate machinery that could put my life or someone else's life in jeopardy.

5. I understand it is my responsibility to inform the doctor of any and all side effects I have from this medication.

6. I agree to take this medication as prescribed and not to change the amount or frequency of the medication without discussing it with the prescribing doctor. Running out early, needing early refills, escalating doses without permission and losing prescriptions may be signs of misuse of the medication and may be reasons for the doctor to discontinue prescribing to me.

7. I agree that the opioids will be prescribed by only one doctor and I agree to fill my prescriptions at only one pharmacy. I agree not to take any pain medication or mind-altering medication prescribed by any other physician without first discussing it with the above-named doctor. I give permission for the doctor to verify that I am not seeing other doctors for opioid medication or going to other pharmacies.

8. I agree to keep my medication in a safe and secure place. Lost, stolen, or damaged medication will not be replaced.

9. I agree not to sell, lend, or in any way give my medication to any other person.
10. I agree not to drink alcohol or take other mood-altering drugs while I am taking opioid analgesic medication. I agree to submit a urine specimen at any time that my doctor requests and give my permission for it to be tested for alcohol and drugs.

11. I agree that I will attend all required follow-up visits with the doctor to monitor this medication and I understand that failure to do so will result in discontinuation of this treatment. I also agree to participate in other chronic pain treatment modalities recommended by my doctor.

12. I understand that there is a small risk that opioid addiction could occur. This means that I might become psychologically dependent on the medication, using it to change my mood or get high, or be unable to control my use of it. People with past history of alcohol or drug abuse problems are more susceptible to addiction. If this occurs, the medication will be discontinued and I will be referred to a drug treatment program for help with this problem.

I have read the above, asked questions, and understand the agreement. If I violate the agreement, I know that the doctor may discontinue this form of treatment.

Patient signature: _____________________

Doctor signature: _____________________

Date

Addendum - Sample Statement that could be in this agreement or included in chart at each visit: I understand that the medication is prescribed as follows:

Type of medication______________________________________________________________

Number of pills and frequency _________________________________________________

Total number of pills _________________________________________________________

Next refill due _____________________________________________________________

Patient signature: _________________

Doctor signature: __________________

This could avoid confusion if you are out of the office, if the patient is calling in for early refill, or if the patient says that you told them something different.
Sample Patient Agreement Forms

Introduction

This resource includes two sample patient agreement forms that can be used with patients who are beginning long-term treatment with opioid analgesics or other controlled substances. These documents contain statements to help ensure patients understand their role and responsibilities regarding their treatment (e.g., how to obtain refills, conditions of medication use), the conditions under which their treatment may be terminated, and the responsibilities of the health care provider. These documents can help facilitate communication between patients and healthcare providers and resolve any questions or concerns before initiation of long-term treatment with a controlled substance.
Pain Treatment with Opioid Medications: Patient Agreement*

I, ______________________________, understand and voluntarily agree that (initial each statement after reviewing):

_____ I will keep (and be on time for) all my scheduled appointments with the doctor and other members of the treatment team.

_____ I will participate in all other types of treatment that I am asked to participate in.

_____ I will keep the medicine safe, secure and out of the reach of children. If the medicine is lost or stolen, I understand it will not be replaced until my next appointment, and may not be replaced at all.

_____ I will take my medication as instructed and not change the way I take it without first talking to the doctor or other member of the treatment team.

_____ I will not call between appointments, or at night or on the weekends looking for refills. I understand that prescriptions will be filled only during scheduled office visits with the treatment team.

_____ I will make sure I have an appointment for refills. If I am having trouble making an appointment, I will tell a member of the treatment team immediately.

_____ I will treat the staff at the office respectfully at all times. I understand that if I am disrespectful to staff or disrupt the care of other patients my treatment will be stopped.

_____ I will not sell this medicine or share it with others. I understand that if I do, my treatment will be stopped.

_____ I will sign a release form to let the doctor speak to all other doctors or providers that I see.

_____ I will tell the doctor all other medicines that I take, and let him/her know right away if I have a prescription for a new medicine.

_____ I will use only one pharmacy to get all on my medicines: __________________________

Pharmacy name/phone#

_____ I will not get any opioid pain medicines or other medicines that can be addictive such as benzodiazepines (klonopin, xanax, valium) or stimulants (ritalin, amphetamine) without telling a member of the treatment team before I fill that prescription. I understand that the only exception to this is if I need pain medicine for an emergency at night or on the weekends.

*Adapted from the American Academy of Pain Medicine
I will not use illegal drugs such as heroin, cocaine, marijuana, or amphetamines. I understand that if I do, my treatment may be stopped.

I will come in for drug testing and counting of my pills within 24 hours of being called. I understand that I must make sure the office has current contact information in order to reach me, and that any missed tests will be considered positive for drugs.

I will keep up to date with any bills from the office and tell the doctor or member of the treatment team immediately if I lose my insurance or can't pay for treatment anymore.

I understand that I may lose my right to treatment in this office if I break any part of this agreement.

Pain Treatment Program Statement

We here at ______________________ are making a commitment to work with you in your efforts to get better. To help you in this work, we agree that:

We will help you schedule regular appointments for medicine refills. If we have to cancel or change your appointment for any reason, we will make sure you have enough medication to last until your next appointment.

We will make sure that this treatment is as safe as possible. We will check regularly to make sure you are not having bad side effects.

We will keep track of your prescriptions and test for drug use regularly to help you feel like you are being monitored well.

We will help connect you with other forms of treatment to help you with your condition. We will help set treatment goals and monitor your progress in achieving those goals.

We will work with any other doctors or providers you are seeing so that they can treat you safely and effectively.

We will work with your medical insurance providers to make sure you do not go without medicine because of paperwork or other things they may ask for.

If you become addicted to these medications, we will help you get treatment and get off of the medications that are causing you problems safely, without getting sick.

_________________________________  ___________________________  ___________________________
Patient signature                  Patient name printed                  Date

_________________________________  ___________________________  ___________________________
Provider signature                Provider name printed                  Date

*Adapted from the American Academy of Pain Medicine
Patient Agreement Form

Patient Name: ____________________________
Medical Record Number: ____________________
Addressograph Stamp: ______________________

AGREEMENT FOR LONG TERM CONTROLLED SUBSTANCE PRESCRIPTIONS

The use of _____________________________(print names of medication(s)) may cause addiction and is only one part of the treatment for: _____________________________(print name of condition—e.g., pain, anxiety, etc.).

The goals of this medicine are:

☐ to improve my ability to work and function at home.
☐ to help my _____________________________(print name of condition—e.g., pain, anxiety, etc.) as much as possible without causing dangerous side effects.

I have been told that:

1. If I drink alcohol or use street drugs, I may not be able to think clearly and I could become sleepy and risk personal injury.
2. I may get addicted to this medicine.
3. If I or anyone in my family has a history of drug or alcohol problems, there is a higher chance of addiction.
4. If I need to stop this medicine, I must do it slowly or I may get very sick.

I agree to the following:

- I am responsible for my medicines. I will not share, sell, or trade my medicine. I will not take anyone else's medicine.
- I will not increase my medicine until I speak with my doctor or nurse.
- My medicine may not be replaced if it is lost, stolen, or used up sooner than prescribed.
- I will keep all appointments set up by my doctor (e.g., primary care, physical therapy, mental health, substance abuse treatment, pain management)
- I will bring the pill bottles with any remaining pills of this medicine to each clinic visit.
- I agree to give a blood or urine sample, if asked, to test for drug use.

Refills

Refills will be made only during regular office hours—Monday through Friday, 8:00AM-4:30 PM. No refills on nights, holidays, or weekends. I must call at least three (3) working days ahead (M-F) to ask for a refill of my medicine. No exceptions will be made. I will not come to Primary Care for my refill until I am called by the nurse.

I must keep track of my medications. No early or emergency refills may be made.

Pharmacy

I will only use one pharmacy to get my medicine. My doctor may talk with the pharmacist about my medicines.
The name of my pharmacy is _____________________________.

1
Prescriptions from Other Doctors

If I see another doctor who gives me a controlled substance medicine (for example, a dentist, a doctor from the Emergency Room or another hospital, etc.) I must bring this medicine to Primary Care in the original bottle, even if there are no pills left.

Privacy
While I am taking this medicine, my doctor may need to contact other doctors or family members to get information about my care and/or use of this medicine. I will be asked to sign a release at that time.

Termination of Agreement
If I break any of the rules, or if my doctor decides that this medicine is hurting me more than helping me, this medicine may be stopped by my doctor in a safe way.

I have talked about this agreement with my doctor and I understand the above rules.

Provider Responsibilities
As your doctor, I agree to perform regular checks to see how well the medicine is working.

I agree to provide primary care for you even if you are no longer getting controlled medicines from me.

____________________________________   _______________________
Patient's signature                        Date

________________________________________
Resident Physician's signature

________________________________________
Attending Physician's signature

☐ This document has been discussed with and signed by the physician and patient. (A signed copy stamped with patient's card should be sent to the medical records department and a copy given to the patient.)
### The DOs and DON'Ts of Extended-Release / Long-Acting Opioid Analgesics

**DO:**
- Read the Medication Guide
- Take your medicine exactly as prescribed
- Store your medicine away from children and in a safe place
- Flush unused medicine down the toilet
- Call your healthcare provider for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

**Call 911 or your local emergency service right away if:**
- You take too much medicine
- You have trouble breathing, or shortness of breath
- A child has taken this medicine

**Talk to your healthcare provider:**
- If the dose you are taking does not control your pain
- About any side effects you may be having
- About all the medicines you take, including over-the-counter medicines, vitamins, and dietary supplements

**DON'T:**
- Do not give your medicine to others
- Do not take medicine unless it was prescribed for you
- Do not stop taking your medicine without talking to your healthcare provider
- Do not cut, break, chew, crush, dissolve, snort, or inject your medicine. If you cannot swallow your medicine whole, talk to your healthcare provider.
- Do not drink alcohol while taking this medicine

For additional information on your medicine go to: [dailymed.nlm.nih.gov](http://dailymed.nlm.nih.gov)

**Take this card with you every time you see your healthcare provider and tell him/her:**
- Your complete medical and family history, including any history of substance abuse or mental illness
- If you are pregnant or are planning to become pregnant
- The cause, severity, and nature of your pain
- Your treatment goals
- All the medicines you take, including over-the-counter (non-prescription) medicines, vitamins, and dietary supplements
- Any side effects you may be having

Take your opioid pain medicine exactly as prescribed by your healthcare provider.
You have received a prescription for a controlled substance. The following information is being provided to you for your safety and education.

**What is a controlled substance?**

Controlled substances include certain prescription medications which are regulated by the government for safety due to their significant side effects and addiction potential. Examples include: Vicodin, Percocet, Oxycontin, MSContin, Valium, Xanax, Ativan, Demerol, Morphine, Dilaudid, and Fentanyl.

**Side Effects:** Ingestion of controlled substances may lead to: confusion, drowsiness, dizziness, nausea, constipation. These are not allergic reactions. However, on rare occasions patients will experience an allergic reaction which may include: swelling of the face or throat, chest tightness, hives or shortness of breath.

**Tolerance:** Patients who use these medications on a long term basis will develop a tolerance to them. As a result, their usual dose will not give them the same relief from their symptoms as it once had. This can tempt patients to increase the amount of medication they take. This is dangerous and may lead to accidental overdose or death from respiratory or cardiovascular failure.

**Dependence/Addiction:** These medications have a high dependence and addiction potential. Chronic use of these medications can lead to dependence and addiction, both physically and psychologically/emotionally.

**Withdrawal:** Patients who abruptly stop taking these medications after building up a tolerance to them, or after becoming dependent/addicted to them, will experience withdrawal symptoms. These symptoms may include: agitation, sweatiness, palpitations, shortness of breath, nausea.

**Synergy:** Synergy occurs when more than one controlled substance is ingested at once, leading to effects greater than either of the medications when taken alone. As such, side effects are increased and patients are at greater risk for accidental overdose or death. Therefore, extreme caution is advised when taking more than one of these medications at a time. These medications should never be taken with alcohol.

**Pregnancy:** Certain controlled substances pose a definite health risk to the fetus in pregnant women. These include benzodiazepines, such as: Valium, Ativan, Xanax. Other medications are permitted with caution, but studies are scarce and therefore potential for harm to the fetus may still exist. In addition, chronic use of these medications during pregnancy can lead to the baby being born addicted to the medication, complete with withdrawal symptoms.
**Aftercare Instructions For Chronic Pain**

Chronic pain is ongoing, or recurrent, pain that persists after healing from the original cause has taken place. It may be due to a prior trauma, surgery or ongoing medical condition. Acute pain arises from a recent trauma, surgery, or new medical condition that has not yet completely resolved. The important difference between the two is that the causes of acute pain may be physically dangerous to patients, whereas chronic, non-malignant pain is not physically dangerous.

Here in the Emergency Department your pain has been determined to be chronic, nonmalignant pain and therefore not physically dangerous to you.

The Emergency Department is best equipped to evaluate and treat acute pain and other emergent conditions. It is not designed to treat ongoing, non-malignant, chronic pain. Some exceptions do exist such as recurrent, malignant pain due to: cancer, MS or sickle cell disease. Chronic pain requires long term treatment and is best managed by a primary care physician and/or pain specialist. While your chronic pain may never completely go away, with a consistent and controlled treatment program, set up with your doctor, your pain can be improved so that you may be more functional in your daily life. In addition, due to the stress of chronic pain, counseling may also be helpful as chronic pain patients can also develop depression and/or anxiety. As such, professional counseling may be helpful too.

You should follow up with your primary care physician or pain specialist to discuss which treatment options are best for you. If you do not have a physician you can call your insurance company, or the physician listed on the back of your medical card, to find one in your area. Otherwise, we will supply you with the name of one who you can contact.

**What to Do?**

- Avoid activities or situations that cause your pain to become worse or could otherwise cause you injury
- Take the medication prescribed for you as directed, or take over the counter pain medication as directed by the label or the pharmacist
- Ice or heat may be helpful. Place a towel between your skin and the ice. Apply the ice for approximately 20 minutes and then remove it for 20 minutes. Repeat this throughout the day for 24-48 hours. If you use a heating pad, do not sleep on it as it may cause burns
- If your pain involves a limb, then elevate it above your heart while resting

**Return to the Emergency Department**

- Return to the Emergency Department if you experience:
- A change in the type (or nature) of your pain that is different from your normal pain
- A change in the distribution of your pain (the part of your body that is affected) that is different from your normal distribution
- New neurologic symptoms such as: weakness, numbness, loss of bowel or bladder control
- New or unusual symptoms associated with your pain
Medication

Many medications are used for the management of chronic pain including: narcotics, anti-inflammatories, anti-depressants, and anti-convulsants. Whichever medication you are prescribed, take it as directed.

YOU MUST PLAN IN ADVANCE - If you think you are running low on your pain medications, it is your responsibility to plan in advance and get a refill from your doctor. You should NEVER wait until night or weekends to try to get in contact with your doctor if you are running out of pain medicine. Emergency/Urgent Care Physicians will usually only provide a single dose of pain medicine and you may not have enough for the rest of the weekend.

CAUTION

The following statement is provided for your information and protection. It is not intended to suggest any illegal activity on your part:

It is a felony to obtain narcotic pain medications by intentionally deceiving the physician who is caring for you. This include, but is not limited to: obtaining multiple prescriptions for pain medication from more than one physician, providing any false information in order to obtain a prescription, providing false information about the nature or severity of your medical condition, and/or selling narcotic pain medication or providing it to someone other than who the medication was intended.
Our staff understands that pain relief is important when someone is hurt or needs emergency care. However, providing ongoing pain relief is often complex. We recommend this be done through your primary health care provider such as your family doctor or pain management specialist. Because mistakes or misuse of pain medication can cause serious health problems and even death, it is important that you provide accurate information about all medications you are taking.

Our Emergency Department will only provide pain relief options that are safe and appropriate. For your safety, we follow these guidelines when managing chronic pain:

1. We are trained to look for and treat an emergency or urgent condition. We use our best judgment when treating pain and follow all legal and ethical guidelines.
2. We typically do not prescribe narcotic pain medicine for chronic pain if you have already received narcotic pain medication from another health care provider or emergency or acute care facility.
3. We may contact your primary care provider to discuss your care. Typically, we will not prescribe narcotic pain medicine if we cannot talk directly with your primary care provider. If you do not have a primary care provider, we will provide you with a list.
4. We may provide only enough pain medication to last until you can contact your primary care provider. We will prescribe pain medication with a lower risk of addiction and overdose whenever possible.
5. We will ask you to show a valid photo ID (like a driver’s license) when you check into the Emergency Department or before receiving a prescription for narcotic pain medication. If you do not have a photo ID, we may take your picture for the medical record.
6. We may ask you to give a urine sample before prescribing narcotic pain medication.
7. Healthcare laws, including HIPAA, allow us to request your medical record and share information with other health care providers who are treating you.
8. Before prescribing a narcotic or other controlled substance, we check the Ohio Automated Rx Reporting System (OARRS) or a similar database that tracks your narcotic and other controlled substance prescriptions.
9. For your safety, we do not:
   a. Routinely give narcotic pain medication injections (shots or IV) for flare-ups of chronic pain
   b. Refill stolen or lost prescriptions for narcotics or controlled substances
   c. Provide missing Subutex, Suboxone, or Methadone doses
   d. Prescribe long-acting or controlled-release pain medications such as OxyContin, MSContin, Duragesics, Methadone, Exalgo, and Opana ER.
10. Frequent users of the Emergency Department may have care plans developed to assist in improving their care. The plans may include avoiding medicines likely to be abused or addictive.
11. If you need help with substance abuse or addiction, please call this toll-free number for confidential referral to treatment between the hours of 8:00 AM and 5:00 PM Monday through Friday: 1-800-788-7254.

It is against the law to attempt to obtain controlled substance pain medicines by deceiving the health care provider caring for you. This can include getting multiple prescriptions from more than one provider or using someone else’s name to obtain a prescription.
Welcome
Pain Management in our Emergency/Acute Care Facility

Our staff understands that pain relief is important when someone is hurt or needs emergency care. However, providing ongoing pain relief is often complex. We recommend this be done through your primary health care provider such as your family doctor or pain management specialist. Because mistakes or misuse of pain medication can cause serious health problems and even death, it is important that you provide accurate information about all medications you are taking. Our emergency/acute care facility will only provide pain relief options that are safe and appropriate.

For your safety, we follow these guidelines when managing chronic pain:

1. We are trained to look for and treat an emergency or urgent condition. We use our best judgment when treating pain, and follow all legal and ethical guidelines.

2. We typically do not prescribe narcotic pain medicine for chronic pain if you have already received narcotic pain medication from another health care provider or emergency or acute care facility.

3. We may contact your primary care provider to discuss your care. Typically, we will not prescribe narcotic pain medicine if we cannot talk directly with your primary care provider. If you do not have a primary care provider, we will provide you with a list of those providers in our area.

4. We may provide only enough pain medication to last until you can contact your primary care provider. We will prescribe pain medication with a lower risk of addiction and overdose whenever possible.

5. We will ask you to show a valid photo ID (like a driver’s license) when you check into the emergency/acute care facility or before receiving a prescription for narcotic pain medication. If you do not have a photo ID, we may take your picture for the medical record.

6. We may ask you to give a urine sample before prescribing narcotic pain medication.

7. Health care laws, including HIPAA, allow us to request your medical record and share information with other health care providers who are treating you.

8. Before prescribing a narcotic or other controlled substance, we check the Ohio Automated Rx Reporting System (OARRS) or a similar database that tracks your narcotic and other controlled substance prescriptions.

9. For your safety, we do not:
   a. Routinely give narcotic pain medication injections (shots or IV) for flare-ups of chronic pain;
   b. Refill stolen or lost prescriptions for narcotics or controlled substances;
   c. Provide missing Subutex, Suboxone, or Methadone doses; or,
   d. Prescribe long-acting or controlled-release pain medications such as OxyContin, MS Contin, Duragesics, Methadone, Exalgo, and Opana ER.

10. Frequent users of the emergency/acute care facility may have care plans developed to assist in improving their care. The plans may include avoiding medicines likely to be abused or addictive.

11. If you need help with substance abuse or addiction, please call this toll-free number for confidential referral to treatment between the hours of 8:00 AM and 5:00 PM Monday through Friday: 1-800-788-7254

It is against the law to attempt to obtain controlled substance pain medicines by deceiving the health care provider caring for you. This can include getting multiple prescriptions from more than one provider or using someone else’s name to obtain a prescription.

Approved by GCOAT on April 18, 2012
Sample Patient Letters

Below are the links to the sample letters provided in the kit. From the link they can be edited to fit your practices specific needs.


Attachment C: for Sample Discharge Instructions
Attachment B: for Sample Pain Agreements

Patient Letter Chronic Pain Management:
http://mha.ohio.gov/Portals/0/assets/Initiatives/GCOAT/Patient-letter-chronic-pain.doc

Patient Letter Acute Pain Treatment:
http://mha.ohio.gov/Portals/0/assets/Initiatives/GCOAT/Patient-letter-acute-pain.doc

Sample Patient Agreement forms:

Patient Counseling Document:

Pain Management in Emergency Department Signs
http://www.healthy.ohio.gov/~/media/F2F834DAC88C4521B45BD25C61CBC172.ashx
http://www.healthy.ohio.gov/~/media/HealthyOhio/ASSETS/Files/ED/2012_%20ED%20Pain%20Management%20regional%20poster%20from%20MCHS.ashx
Research Articles
Original Contributions

A RANDOMIZED CONTROLLED TRIAL OF A CITYWIDE EMERGENCY DEPARTMENT CARE COORDINATION PROGRAM TO REDUCE PRESCRIPTION OPIOID RELATED EMERGENCY DEPARTMENT VISITS

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Abstract—Background: Increasing prescription overdose deaths have demonstrated the need for safer emergency department (ED) prescribing practices for patients who are frequent ED users. Objectives: We hypothesized that the care of frequent ED users would improve using a citywide care coordination program combined with an ED care coordination information system, as measured by fewer ED visits by and decreased controlled substance prescribing to these patients. Methods: We conducted a multisite randomized controlled trial (RCT) across all EDs in a metropolitan area; 165 patients with the most ED visits for complaints of pain were randomized. For the treatment arm, drivers of ED use were identified by medical record review. Patients and their primary care providers were contacted by phone. Each patient was discussed at a community multidisciplinary meeting where recommendations for ED care were formed. The ED care recommendations were stored in an ED information exchange system that faxed them to the treating ED provider when the patient presented to the ED. The control arm was subjected to treatment as usual. Results: The intervention arm experienced a 34% decrease (incident rate ratios = 0.66, p < 0.001; 95% confidence interval 0.57–0.78) in ED visits and an 80% decrease (odds ratio = 0.21, p = 0.001) in the odds of receiving an opioid prescription from the ED relative to the control group. Declines of 43.7%, 53.1%, 52.9%, and 53.1% were observed in the treatment group for morphine milligram equivalents, controlled substance pills, prescriptions, and prescribers, respectively. Conclusion: This RCT showed the effectiveness of a citywide ED care coordination program in reducing ED visits and controlled substance prescribing.

Keywords—frequent ED users; ED care coordination; prescription opioid abuse; prescription drug monitoring program; opioid prescribing

All authors report no conflict of interest except Darin Neven and Becky Grohs. Darin Neven reports owning a medical practice performing ED care coordination that was created after completion of this clinical trial, and Becky Grohs reports working for this practice as the clinical director. Darin Neven also reports being the medical director for the nonprofit Alliance Consistent Care Program and the nonprofit Providence Consistent Care Program. Becky Grohs reports being the program coordinator for the nonprofit Alliance Consistent Care Program.
An increase in overdose deaths related to opioid analgesics over the past 15 years has amplified the importance of safely managing prescription opioid medications prescribed by all physicians, including those who practice in emergency departments (EDs). Pain is the most common reason people seek care in EDs (1). Among all adult ED patients with pain-related complaints, approximately 43% are administered an opioid analgesic, and 26% receive a discharge prescription for an opioid during a pain-related ED visit (2). Roughly one in five prescriptions written by emergency medicine practitioners is for an opioid analgesic (3). ED providers find it difficult to balance effective pain treatment against risk for addiction and overdose (4).

Designed and outfitted for the rapid treatment of acute conditions, the ED lacks the resources for management of chronic pain (5). Such management is difficult in a setting of brief patient–physician interactions, with little or no access to primary care medical records, with small amounts of useful data buried within a voluminous electronic health record that is too lengthy and ill-formatted to efficiently and fully search, and with little training in the treatment of chronic pain or addiction. As a result, the care coordination process tends to break down when patients seek treatment for chronic pain in the ED. Moreover, the lack of timely, accurate information leads to difficulty in appropriately limiting controlled-substance prescribing in the ED. This incomplete substance abuse history makes it very challenging to discuss chemical dependency treatment with appropriate patients. These gaps make it possible for patients with drug addiction to use the ED to obtain controlled prescription drugs (6).

Of particular concern in this context is a small subset of patients who use the ED frequently. It has been reported that 3% to 4% of patients account for up to 20% of total ED visits (7). Frequent ED users are a particularly difficult population to treat appropriately due to a lack of consistently implemented ED treatment plans, which are routinely employed in the primary care setting. Patients who frequent the ED are more likely to have complex problems, be socially and economically disadvantaged, covered by Medicaid or Medicare, have comorbid psychiatric and substance abuse conditions, be in overall poor health, and have made frequent outpatient clinic visits (8,9). Some ED visitors go to multiple EDs in their communities to obtain prescriptions for drugs prone to abuse, a behavior known as “drug seeking” (10). Many efforts, such as statewide prescription monitoring programs, patient alert lists, and a non-narcotic protocol in the ED, have been implemented with unclear effect on ED opioid prescribing practices (11–13).

ED-specific care coordination programs are a novel strategy that seems to be effective at assisting frequent users with obtaining the appropriate level of care in the appropriate setting (14). Care coordination programs represent a client-centered, assessment-based, interdisciplinary approach to integrating health care and social support services wherein the individual’s needs and preferences are assessed, a care plan for ED treatment is developed, and services are managed and monitored by an identified case manager following evidence-based standards of care. ED care coordination programs that do not operate in all area EDs are not effective at deterring patients from frequenting nonparticipating EDs, and their outcomes are skewed (14).

In 2006, Providence Sacred Heart Medical Center and Children’s Hospital in Spokane, WA, established a citywide care coordination program, Consistent Care (CC), to offer ED providers at all metropolitan hospitals real-time ED treatment plans for patients at risk for using the ED to obtain prescription analgesics for inappropriate use. A pre-post analysis of a convenience sample of CC patients revealed a significant reduction in ED visits and indicated that the program was cost saving from the hospital’s perspective (15). Although these results were encouraging, a more rigorous evaluation of this program in a new community was needed, one that also evaluated the program’s impact on controlled-substance prescribing.

We conducted a multisite, randomized controlled trial (RCT) of the effectiveness of an information-exchange-assisted citywide ED care coordination program for the management of frequent ED users exhibiting opioid-prescription-seeking behavior in the Tri-Cities area of south-central Washington, 135 miles southwest of Spokane. We sought to determine if the intervention decreased participants’ frequency of ED visits, the controlled-substance-prescribing practices of ED clinicians located at the study sites, and the number of controlled substance prescriptions frequent users received from all providers in the state relative to a treatment-as-usual (TAU) control. If the intervention is shown to be effective, it might provide a management approach that can be implemented in cities nationwide. Such care coordination might ultimately reduce morbidity and mortality risks associated with prescription opioids and reduce related health care expenditures.

METHODS

Study Design and Setting

We utilized a multisite, RCT design. The study took place at three hospital-based EDs located in a region composed of three contiguous cities with a total population of 242,000. The number of combined yearly ED visits for these hospitals was approximately 112,000. The trial included all EDs in the metropolitan area. Each ED was operated independently in separate health care systems.
Two of the hospitals operated internal programs for monitoring frequent ED users prior to the RCT; however, there were no communication or coordination efforts with the other hospitals. Patients enrolled in these internal programs were excluded. This study received Institutional Review Board (IRB) approval from Washington State University and each of the hospitals.

The hospital information systems of the three study hospitals were connected to the Emergency Department Information Exchange (EDIE), an Internet-based ED care coordination application. Each hospital implemented a Health Level 7 admission, discharge, and transfer data feed from the hospital information system to the EDIE system. With the EDIE system, hospitals can track and analyze patient ED utilization patterns, compile historical patient data (e.g., diagnoses, medications, allergies, discharge summaries), manage patient care by creating ED Care Guidelines that are faxed to the ED provider in real-time, and document care coordination interventions provided to the patient.

Participants

Potential participants were identified by aggregating the ED census from all three hospitals and ranking patients according to their frequency of ED visits in the 12 months prior to January 2012. Patients who met the following criteria were included in the study: 1) five or more ED visits to study hospitals in the previous 12 months, 2) at least half of the ED visits attributed to pain complaints or drug-seeking behaviors, and 3) age 18 years or older. Patients were excluded who had 1) a medical condition that in the principal investigator’s (PI) or the study medical director’s judgment might interfere with safe study participation such as a terminal diagnosis; 2) a documented cancer diagnosis suspected of causing chronic pain; 3) acute suicidal behaviors (overt attempts or current serious suicidal intention) documented in the medical record; or 4) high frequency ED utilization for medical reasons other than pain, such as serial inebriation. Patients were randomly assigned to either the intervention group or TAU group using the urn randomization procedure (16). To minimize participant selection effects, a waiver of consent was obtained from the IRB, and participants were not informed of study participation. The waiver of consent prevented patients from being influenced to participate or not based on their impression that participation would affect being prescribed opioids during their ED visit.

Patient-specific care guidelines were automatically faxed to the ED by the EDIE system and placed on the patient’s chart within 3 minutes of the patient presenting to the ED. Enrollment in the intervention group was evident to ED providers by virtue of the faxed ED Care Guidelines being made part of the patient’s ED chart. Providers were not informed when patients in the TAU group presented to the ED. The ED Care Guidelines were recommendations and not mandatory. ED providers were educated to use clinical judgment when providing care to the patient. Patient charts of participants were monitored regularly by the study research coordinator for adverse events. Participants in the intervention and TAU group were removed from the study if they presented to the ED with suicidal behaviors.

Enrollment

The study enrollment period was March 2012 to July 2012. Participants in the intervention group received citywide care coordination for 1 year after entering the study. Participants in the control group were observed for 1 year after entering the study. The trial ended in July 2013.

For patients in the intervention group, the enrollment protocol started with one of the three hospital-based ED case managers reviewing the medical, mental, and social history contained in ED visit medical records from all the hospitals in the study area. Next, the ED case manager called all the current care providers of patients in the intervention group, including any substance abuse and mental health providers, to explain the program and solicit information on the patient and their ED treatment recommendations. Patients in the intervention group were sent a letter and contacted by phone to inform them of enrollment in the program. The ED case manager solicited their input regarding their frequent ED use, and offered to assist the patient in obtaining needed care. Thereafter, an ED case manager attempted to meet the patient whenever they presented to the ED. Patients that visited the ED when case management was not present received a follow-up call the next day to discuss their ED visit. Patients were enrolled using this process every 2 weeks during the study enrollment period in groups of 10–12 patients, and then discussed at biweekly multidisciplinary committee meetings.

The role of the multidisciplinary committee was to make recommendations for individualized ED Care Guidelines and for care coordination interventions on the patients in the intervention group. It included social service staff, a pharmacist, a chaplain, ED providers and staff from all three hospital sites, mental health and substance abuse providers, and study staff, including the Study PI and Research Coordinator. Cases were presented by an ED case manager from one of the three hospitals and included any relevant medical history and an identified reason behind the frequent ED visits. Meetings were held at each of the three study sites. The committee held eight meetings over the 14-week enrollment period.
Recommendations were developed and documented in the EDIE system for follow-up by involved agencies and case management staff.

The ED Care Guidelines were written by the research coordinator, who is also a certified nurse case manager, based on the recommendations of the committee. The Guidelines included eight sections:

1. Security Summary: An assessment of the security risk of the patient to ED staff and a description of any patterns of dangerous behavior demonstrated on previous ED visits.
2. Opioid Recommendation: A recommendation from the multidisciplinary committee not to administer or prescribe opioids from the ED when objective findings to substantiate complaints of pain are absent.
3. Primary Care Provider: The patient’s primary care provider and clinic name, including the phone number.
4. Chronic Pain Medication: Information about whether the patient has entered into an opioid agreement with their provider or is receiving a scheduled supply of controlled substances.
5. CT Scan Statement: A statement summarizing the number of CT scans the patient has received in the last 3 years and how often CT scans had significant findings.
6. ED Visit Summary: A table of all ED visits made by the patient in the metropolitan area for the past 2 years.
7. Referrals: A statement regarding the referrals recommended by the multidisciplinary committee, such as chemical dependency evaluation, psychiatric evaluation, or physical therapy evaluation.
8. Past Medical History: A compilation of diagnoses listed on medical records, as well as a summary of other pertinent psychosocial history factors obtained from hospital medical records.

The guidelines were entered into the EDIE system and were also provided to the assigned Primary Care Provider and other members of the care team at the conclusion of the enrollment process for each participant in the intervention arm. The ED Care Guidelines served as a permanent care coordination document that could be updated as the patient’s situation changed. Patients were contacted by the ED case manager as needed during the 12-month observation period to arrange for services that were thought necessary, such as specialty referrals or primary care follow-up. This allowed the ED Case Manager and hospital staff to work toward addressing identified gaps in care at every ED visit. For all patients, the multidisciplinary committee recommended the ED provider not provide any controlled substances if objective findings to support the pain complaints were not observed. Examples of objective findings would include ED imaging studies showing acute pathology or physical examination findings that are consistent with acute pathology. The study team educated the ED providers and hospital staff about the importance of following the ED Care Guidelines shortly after beginning the study and periodically throughout the course of the study. When ED care guidelines were not followed, follow-up education was provided to promote behavior change by the ED providers.

Care Coordination

Each hospital employed an ED case manager that performed care coordination for all ED patients. The study reimbursed each hospital for 10 hours per week of the ED case manager’s time to provide ED care coordination for study participants. Patients in the intervention group were assigned to an ED case manager at the ED they most frequented. The role of the ED case managers was to identify the factors contributing to ED use and to develop interventions to address the issues. This included addressing any untreated mental health or substance abuse issues, finding resources for basic needs (housing, transportation), connecting study participants to primary care, and providing education on alternatives to the use of the ED for nonemergent issues. The case managers also served as a liaison to identify a sole prescriber in the community for any individuals visiting multiple prescribers for controlled substances.

To determine whether study participants were acquiring controlled substance prescriptions outside of the study area, we retrieved data on Schedule II and III prescriptions from the Washington State Prescription Drug Monitoring Program (PDMP). The PDMP collects information on all controlled-substance prescriptions dispensed by all pharmacies in Washington State. The PDMP started mandatory collection of such information in October 2011, which was 5 months prior to the enrollment of the first group of study participants. Due to the limited prescription history in the PDMP, we analyzed PDMP outcomes only for the final month of the intervention, when we could compare all patients in the intervention and TAU groups during the same calendar month. This was the 10th month of the intervention. We compared aggregate data for the two groups because state privacy regulations prevented PDMP data from being reported on individual patients. In addition to examining whether the intervention decreased the overall number of controlled substance prescriptions, we also determined whether patients returned to the ED sooner if they were provided a controlled-substance prescription from the ED.
**Statistical Analysis**

Chi-squared and *t*-tests were used for categorical and continuous variables, respectively, to assess the success of the randomization procedure (see Table 1). The 12-month observation period for each participant began when the participant was enrolled in the study. We used generalized estimating equations (GEE) to compare the groups with respect to longitudinal ED visits (i.e., as a count; using the Poisson family and a log link function) per month during the 12-month observation period, and whether or not patients had one or more ED visits (1 = yes, 0 = no; using the binomial family and a logit link function) during any given month for each of the 12 months of the observation period. We report incident rate ratios (IRRs) for monthly counts of ED visits and odds ratios (ORs) for monthly ED visits (yes/no). We used independent sample *t*-tests to compare total number of ED visits, mean number of prescriptions on discharge (both opioid and nonopioid controlled substances), and longest consecutive period between ED visits. We also employed nonparametric alternatives to the independent samples *t*-test (i.e., adjusting for unequal variances) given potential assumption violations. We also utilized GEE for the secondary outcome of whether patients received an opioid in the ED or not. Using outcomes data from the PDMP, we calculated the prevented fraction (or proportion of incidents prevented by treatment in %) due to the intervention exposure compared to the control exposure using person-months for each group in the last observable uniform 1-month period (i.e., as noted above, month 10 of the intervention) (17,18). We utilized an alpha level of 0.05 (two-tailed) as the threshold for statistical significance in all tests. Stata 13.0 (College Station, TX) was used for all statistical analyses.

**RESULTS**

We evaluated 255 patients for inclusion in the study and excluded 90 that did not meet study criteria. The remaining 165 were randomized (Figure 1). Five participants were removed from the intervention group during the course of the trial: 2 due to suicidal behavior, 2 due to death, and 1 due to a new cancer diagnosis. Five participants were removed from the control group: 4 due to suicidal behavior and 1 due to death. One of the deaths was due to a tricyclic overdose and one death was due to hanging. The cause of the third death is unknown.

The groups did not differ on gender, mean age, number of ED visits in the previous 12 months, or number of opioid prescriptions from the ED in the previous 12 months (Table 1). All 155 patients in the study had at least 11 ED visits during the 12-month period prior to January 2012, at least 50% of which were attributed to a pain complaint. We also compared the distribution of the primary reasons for participants being lost to follow-up due to study disenrollment (i.e., death, suicidality, terminal diagnosis). The groups did not differ with respect to the reason for loss of follow-up (data not shown).

Participants in the intervention arm of the trial experienced an approximate 34% decrease in the incidence of ED visits (IRR 0.663, *p* < 0.001; 95% confidence interval [CI] 0.569–0.775) relative to the control group across the 12-month treatment period (Table 2). The odds of making any visit to the ED were about 33% less in the intervention group compared to the control group (OR 0.21, *p* = 0.001; 95% CI 0.538–0.841) during treatment as well (Table 2). The overall likelihood of visiting the ED for all study participants went down during the 12-month study observation period by approximately 4% per month (OR 0.961, *p* = 0.001; 95% CI 0.932–0.991) (Figure 2). Lastly, the GEE analysis on whether or not participants received an opioid prescription from the ED provider (yes/no) during each 1-month period found an 80% decrease in the odds of those in the treatment group receiving an opioid prescription from the ED provider compared to those in the control group (OR 0.21, *p* = 0.001; 95% CI 0.122–0.353) over time (Table 2).

Participants in the intervention group visited the ED fewer times on average than those in the control group (Table 3). Participants in the intervention group received a significantly smaller mean number of prescriptions written on ED discharge per person compared to those in the control group. Nonparametric tests produced the same result for all of the above tests for our secondary outcomes (data not shown).

The number of opioid prescriptions written per participant was predictive of ED visit-free days (*B* = −16.42, *p* < 0.001) while controlling for treatment group assignment. For every opioid prescription written, there was an approximate 16-day decrease in an individual’s longest consecutive ED visit-free days. There was no difference between the intervention group (M = 149.93, SD = 80.26) and the control group (M = 146.83, SD = 80.26) in the ED visit-free days for those completing the study. All outcomes have been adjusted for other factors that might affect ED visits, including the reason for loss of follow-up (data not shown).

**Table 1. Participant Characteristics at Baseline Across Study Groups, Citywide ED Care Coordination Trial, March 2012 to July 2013**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Intervention Group (n = 79)</th>
<th>Control Group (n = 76)</th>
<th>p-Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age in years, Mean (SD)</td>
<td>37.82 (13.37)</td>
<td>37.12 (12.90)</td>
<td>0.74</td>
</tr>
<tr>
<td>Percent female, % (n)</td>
<td>68.42 (57)</td>
<td>72.15 (52)</td>
<td>0.61</td>
</tr>
<tr>
<td>ED visits in 2011, Mean (SD)</td>
<td>16.67 (6.76)</td>
<td>15.46 (5.60)</td>
<td>0.23</td>
</tr>
<tr>
<td>Number of opioid prescriptions from the ED in prior 12 months, Mean (SD)</td>
<td>3.97 (3.97)</td>
<td>3.65 (3.69)</td>
<td>0.61</td>
</tr>
</tbody>
</table>

ED = emergency department; SD = standard deviation.
SD = 80.08; $t = -0.23$, $p = 0.815$) on an individual’s longest number of consecutive ED visit-free days during the intervention (data not shown). The two groups differed markedly by the last uniform observational month for this trial (month 10) (Table 4). The total number of pills dispensed, morphine milligram

Table 2. ED Visit and ED Opioid Prescribing Ratios for Intervention and Control Groups, Citywide ED Care Coordination Care Trial March 2012 to July 2013

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Treatment Effect (0 = Control Arm, 1 = Intervention Arm)</th>
<th>Time Effect (Per Month)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ratio</td>
<td>95% CI</td>
</tr>
<tr>
<td>ED visit incidence (count per month)</td>
<td>0.663*</td>
<td>0.569–0.775</td>
</tr>
<tr>
<td>ED visit (yes/no per month)</td>
<td>0.673†</td>
<td>0.538–0.841</td>
</tr>
<tr>
<td>Opioid incidence in ED (count per month)</td>
<td>0.208*</td>
<td>0.122–0.353</td>
</tr>
<tr>
<td>Opioid in ED (yes/no)</td>
<td>0.198†</td>
<td>0.120–0.325</td>
</tr>
</tbody>
</table>

ED = emergency department; CI = confidence interval.
* Odds ratio.
† Incident rate ratio.
equivalents, and opioid prescriptions filled in the treatment group statewide was nearly half that of the control group. The number of prescriptions for nonopioid schedule II and III prescriptions was two-thirds fewer for the treatment group (total = 28) compared to the control group (total = 84). The number of opioid prescriptions with a refill was four in the treatment group and 10 in the control group, which is the only nonstatistically significant finding from the PDMP outcomes. Lastly, there were a total of 23 unique prescribers in the treatment group and 40 in the control group.

**DISCUSSION**

This RCT has demonstrated that a citywide ED care coordination program combined with an ED care coordination information system can reduce ED visits and controlled substance prescribing by ED providers. Data from the state’s prescription drug-monitoring program indicated that participants in the intervention group received fewer controlled-substance prescriptions and pills from all prescribers than participants in the TAU group.

A variety of other efforts to improve care and reduce visits of frequent ED users have been attempted. For example, “Patient Alert” lists have been used to reduce ED drug-seeking behaviors with limited success (12). The citywide ED care coordination program studied in this RCT was inspired by a program started in Calgary, Canada for frequent ED users with headache complaints that involved all four Calgary hospitals; however, the program lacked computerized information sharing and did not proceed to full implementation (19). A small study found that when ED patients were told they would be denied further narcotic treatment in their facility, patients received a prescription drug 93% of the time in another hospital and 71% of the time in the same hospital at a subsequent visit (20). The use of a strict non-narcotic protocol in the ED for chronic pain patients was found to reduce overall ED and other clinic visits in a select population (21). Research on intensive case management of individuals frequently using the ED has found mixed results. Findings from two reports suggest that case management may be effective, yet other studies have found no decline in, or increased utilization of, the ED (22–25). Sample sizes for each of these studies were relatively small (ranging from 24–70). A major limitation of these studies was the use of coordination in a single hospital or hospital system, and ED visits were not measured at all nearby EDs.

This study examined the combination of an ED care coordination program with timely data on patient prescription histories in all hospitals in one metropolitan area. A small study has suggested that immediate access to information from a PDMP could significantly affect the emergency physician’s controlled substance prescribing (26). The availability of similar information to the ED provider in real time might be more effective when coupled with coordinated community care for the patients. Notably, in 2013 Washington State mandated the use of the information-sharing platform used in this study without mandating care coordination services, and found only a 10% reduction in ED visits per year after implementation (13,27).

Some of the declines in outcomes noted in both study groups might have been due to regression to the mean or to other interventions being introduced in Washington State.
State during this time period (27). For example, in 2010, Washington State enacted a law (ESHB 2876) requiring rules on pain management to be adopted by practitioners. This bill outlined dosing criteria, consultation guidance, treatment review, continuing education requirements, and also cited exceptions to these requirements. Although most ED providers fell into the exception of managing acute pain caused by injury or surgery, their awareness of these rules may have affected their prescribing practices (28). The decline noted in the control group might also have been due, in part, to a spillover effect: sensitizing the local providers about the problem of opioid abuse during our communications regarding patients in the intervention group. Anecdotally, providers reported being more empowered to say “No” in prescribing these medications to any patients. However, one would expect the same influence to be exerted in the TAU group.

Limitations

This study has several limitations. Providing information as to whether or not individuals sought treatment via primary care and what type of care they received was not within the scope of this study. Patients might have gone to primary care providers instead of returning to EDs in the study area. Only ED visits made to the three metropolitan hospitals were measured, and it is unknown to what extent patients made ED visits outside the metropolitan area. However, the risk is estimated to be small, as the closest hospital is over 30 miles away. The PDMP data show a decrease in all dispensed controlled-substance metrics measured across the state. Another potential concern is that patients turned to other means to obtain opioids (e.g., theft, greater use of family or friends’ medications), but we did not attempt to measure such behavior. It is also unknown whether patients might have filled prescriptions out of state to avoid being recorded in the Washington State PDMP. The closest Oregon town is 30 miles from the study area. Schedule IV controlled substances include many substances of abuse sought by frequent ED users, including alprazolam, lorazepam, and clonazepam. This study did not retrieve information on schedule IV controlled substances from the PDMP.

Finally, it is unknown whether the intervention had positive or negative effects on the management of chronic health problems in these patients or on their subsequent risk of health problems related to substance abuse, such as overdose. One study that reported a case management system for frequent ED users found both a reduction in ED use and an improvement in psychosocial problems (29).

CONCLUSIONS

To our knowledge, this is the first RCT to show the effectiveness of coordinating ED care across all hospitals in a metropolitan area using an ED care coordination information system to reduce ED visits and opioid prescribing among frequent ED users. Expanding the use of ED care coordination information systems would allow other hospitals to appropriately treat patients that they suspect are moving from hospital to hospital in an effort to obtain controlled substances. The goal should be not only to identify and treat these individuals appropriately in the ED, but also to provide follow-up ED care coordination so they can obtain the treatment needed for the long-term management of their condition(s). Sharing ED care plans between all EDs could result in patients receiving a consistent message from all emergency providers, which could lead to long-term behavior modification that results in healthier lifestyles. The effectiveness of this intervention could be extended to other frequent ED user groups with chronic conditions where the patient is resistant to long-term behavior modification, such as congestive heart failure, chronic obstructive pulmonary disease, and diabetes.

Acknowledgments—This project was funded by the Centers for Disease Control and Prevention under contract #BAA 2011-N-13277 with the Washington State University Program of Excellence in Addictions Research, Principal Investigator: Darin
Neven. The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention or the Agency for Toxic Substances and Disease Registry.

REFERENCES


### ARTICLE SUMMARY

1. **Why is this topic important?**
   Opioid abuse is a major cause of death and mortality in the United States. Frequent emergency department (ED) users tax the health care system.

2. **What does this study attempt to show?**
   This study shows that an ED care coordination program operating in cooperation with all EDs within a community are effective.

3. **What are the key findings?**
   ED visits by frequent ED users were reduced, and controlled substance prescribing was reduced by a community ED care coordination program.

4. **How is patient care impacted?**
   Patients with frequent ED use for pain complaints should be referred to a community-wide ED care coordination program.
Counterfeit Norco Poisoning Outbreak — San Francisco Bay Area, California, March 25–April 5, 2016

Kathy T. Vo, MD1,2; Xander M.R. van Wijk, PhD3; Kara L. Lynch, PhD3; Alan H.B. Wu, PhD3; Craig G. Smollin, MD1,2

On April 26, 2016, this report was posted as an MMWR Early Release on the MMWR website (http://www.cdc.gov/mmwr).

On March 28, 2016, two patients were evaluated at the Contra Costa Regional Medical Center emergency department (ED) in Contra Costa County, California, for nausea, vomiting, central nervous system depression, and respiratory depression, 30 minutes after ingesting what appeared to be Norco, a prescription opioid pain medication that contains acetaminophen and hydrocodone. The patients purchased the drug from a friend a few days earlier. The two cases of drug intoxication were reported to a Contra Costa County Health Department public health official who subsequently notified the California State Health Department.

Three days earlier, the Sacramento County Division of Public Health had released a Drug Overdose Health Alert regarding multiple poisoning overdoses related to ingestion of fentanyl-contaminated counterfeit Norco in Sacramento County (1). All staff members at the California Poison Control System (CPCS) were alerted to increase vigilance for potential cases. In the subsequent 2 weeks, the CPCS San Francisco Division identified an additional five cases in three Bay Area counties (Alameda, San Francisco, and Santa Clara), including one case in a patient (patient 1) that was reported retrospectively (Table). All patients reported to the CPCS San Francisco Division had various signs and symptoms of opioid intoxication after ingestion of the illicit product, and all recovered without clinical sequelae within 24 hours.

Although analyses of product and patient specimens from Sacramento County were reported to have contained fentanyl, all cases in the Bay Area also contained promethazine, which had not been reported as an additive in previous counterfeit or adulterated fentanyl-containing products. Fentanyl is a synthetic opioid analgesic that is a full µ-opioid receptor agonist (one of the three opioid receptors through which opioids exert their pharmacologic actions) and has 100 times the potency of morphine (2). Fentanyl is available in many formulations, and its unique physicochemical properties, particularly its high lipophilicity, allow it to quickly enter the central nervous system and are responsible for its high potency (2) and high potential for abuse. Fentanyl is not currently formulated for oral administration in pill or tablet form, however, and its presence in pill form is a marker for an illicitly produced product. Promethazine, a phenothiazine derivative, is routinely prescribed for the treatment of nausea, vomiting, and motion sickness. Promethazine use has recently been reported to be common among chronic opioid users and is thought to potentiate the “high” from opioids (3).

Initial Case Reports

Patient 2 was a man aged 36 years who went to the ED with his girlfriend (patient 3), concerned that he was experiencing an adverse reaction to an illicitly purchased drug. He bought what he believed to be Norco tablets from a friend a few days earlier and described the tablets as having the inscription “M367,” and looking exactly like Norco tablets that had been previously prescribed to him after a shoulder cartilage repair. He had ingested half of one street-purchased tablet approximately 12 hours earlier, and two additional tablets 30 minutes before arriving in the ED. In the ED, he was afebrile with stable vital signs and blood oxygen saturation 99% on room air. Electrolytes and blood chemistries were within normal ranges. Physical examination was notable for lethargy. He was administered a 0.4-mg dose of intramuscular naloxone with transient improvement in his mental status; however, 1.5 hours later, he experienced respiratory depression with a decline in his oxygen saturation to 90%, which improved with administration of supplemental oxygen. Acetaminophen level was <10 µg/mL. Urine drug screen was positive for opiates. He was observed for 6 hours and discharged home.

Patient 3, a woman aged 30 years, came to the ED with her boyfriend (patient 2), also having ingested two of the street-purchased “Norco” tablets 30 minutes before arrival. After ingestion, she complained of dizziness and became unresponsive, and her boyfriend initiated cardiopulmonary resuscitation and contacted emergency responders, who noted that her blood oxygen saturation was 93% on room air. A 0.4-mg dose of IV naloxone was administered, and on arrival at the ED, her physical exam was notable for lethargy and bradypnea (8 breaths/minute), and blood oxygen saturation of 98% on 2 L of oxygen via nasal cannula. She received a second 0.4-mg dose of IV naloxone 6 hours after arrival. Laboratory results were normal except for a slightly elevated white blood cell count (13,400/µL [normal = 4,000–10,000]). Acetaminophen level was <10 µg/mL and urine drug screen was positive for opiates. She had persistent nausea and vomiting, and was admitted to the hospital for...
overnight observation. Her symptoms improved, and she was discharged home 32 hours after her arrival.

**Laboratory Analyses**

Tablets purchased by another patient (patient 6) were provided to the hospital staff. The tablets and serum specimens from all seven patients were analyzed using liquid chromatography high-resolution mass spectrometry (4). Levels of fentanyl, acetaminophen, and hydrocodone were quantified. Additional drugs were also detected in the serum (Table).

Analysis of a tablet obtained from patient 6 indicated that it contained 3.5 mg of fentanyl, 2.3 mg of promethazine, 39.2 mg of acetaminophen, and trace amounts of cocaine. All patients had serum fentanyl levels of 1.6–10.1 ng/mL (therapeutic range...
for analgesia = 0.6–3.0 ng/mL), with all except one (patient 4) in excess of the therapeutic range (5). All patients had detectable acetaminophen and hydrocodone, these counterfeit tablets predominantly contained fentanyl and promethazine. Prior to this outbreak in the Bay Area, counterfeit or adulterated fentanyl-containing products had not previously been reported to include promethazine as an additive. Promethazine likely potentiates the opioid effect.

What are the implications for public health practice?

The distribution of counterfeit tablets represents a major public health threat given the potentially lethal nature of the tablets. Health care providers should be aware of this and other concurrent outbreaks and notify local poison centers and health departments of suspected cases. Collaborative efforts among public health, medical, and law enforcement officials are essential for a rapid and effective response.

Discussion

Response to this outbreak has included notification of the California Department of Public Health, local media outlets, and law enforcement officials. On April 4, 2016, the Drug Enforcement Administration (DEA) launched an anonymous tip line in San Francisco. No information has been released regarding the source of the counterfeit tablets, and an investigation is ongoing. The distribution of counterfeit medications, especially those containing fentanyl, is an emerging and serious public health threat. Opioid abuse is the fastest-growing drug problem in the United States; despite prevention strategies at federal, state, and local levels, deaths caused by ingestion of opioid analgesics continue (6). In addition to prescription drug abuse, nonpharmaceutical illicitly produced opioid-containing products have received much attention in recent years. Fentanyl, in particular, was responsible for more than 1,000 deaths during 2005–2007 (7). In March 2015, DEA issued a nationwide alert about the dangers of illicitly produced fentanyl and fentanyl compounds, describing these products as a threat to health and public safety (8). In California, during October–December 2015, seven persons, including two who died, were found to have been exposed to fentanyl-adulterated counterfeit Xanax (9).

Efforts to identify the source of the current counterfeiting are ongoing. Patients with signs and symptoms of acute opioid overdose including central nervous system and respiratory depression, and in whom larger doses of naloxone are required to reverse symptoms, should raise suspicion for intoxication with a counterfeit product containing fentanyl. Physicians should inquire about the illegal purchase of prescription medications in these cases and notify their local poison control centers and health departments. Efforts should also be made to communicate to the general public the significant risks to life and health when purchasing what appears to be prescription medications from any source other than a reputable pharmacy or health care provider, because it might be difficult to distinguish a counterfeit pill from the legitimate pharmaceutical product (Figure).

Summary

What is already known about this topic?
The United States is experiencing an opioid epidemic with synthetic opioids such as fentanyl responsible for the highest rise in death rates in recent years. Fentanyl, a potent opioid receptor agonist, can cause significant central nervous system and respiratory depression and has been implicated in multiple outbreaks in the past decade.

What is added by this report?
During March 25–April 5, 2016, seven cases of counterfeit Norco ingestion and intoxication were identified by the San Francisco Division of the California Poison Control System. Whereas Norco typically contains acetaminophen and hydrocodone, these counterfeit tablets predominantly contained fentanyl and promethazine. Prior to this outbreak in the Bay Area, counterfeit or adulterated fentanyl-containing products had not previously been reported to include promethazine as an additive. Promethazine likely potentiates the opioid effect.

What are the implications for public health practice?
The distribution of counterfeit tablets represents a major public health threat given the potentially lethal nature of the tablets. Health care providers should be aware of this and other concurrent outbreaks and notify local poison centers and health departments of suspected cases. Collaborative efforts among public health, medical, and law enforcement officials are essential for a rapid and effective response.

FIGURE. Photo of four counterfeit Norco “M367” tablets obtained from patient 6 during the investigation of a counterfeit Norco poisoning outbreak — San Francisco Bay Area, California, 2016

Photo/California Poison Control System, San Francisco Division

1Department of Emergency Medicine, University of California, San Francisco; 2California Poison Control System, San Francisco Division; 3Department of Laboratory Medicine, University of California, San Francisco.

Corresponding author: Kathy T. Vo, kathy.vo@ucsf.edu, 415-643-3243.
References


Drowsy Driving and Risk Behaviors — 10 States and Puerto Rico, 2011–2012

Anne G. Wheaton, PhD1, Ruth A. Shults, PhD2, Daniel P. Chapman, PhD1, Earl S. Ford, MD1, Janet B. Croft, PhD1

(Approximately 25%) of the United States (1,2). CDC previously reported that, in 2009–2010, 4.2% of adult respondents in 19 states and the District of Columbia reported having fallen asleep while driving at least once during the previous 30 days (3). Adults who reported usually sleeping ≤6 hours per day, snoring, or unintentionally falling asleep during the day were more likely to report falling asleep while driving compared with adults who did not report these sleep patterns (3). However, limited information has been published on the association between drowsy driving and other risk behaviors that might contribute to crash injuries or fatalities. Therefore, CDC analyzed responses to survey questions regarding drowsy driving among 92,102 respondents in 10 states and Puerto Rico to the 2011–2012 Behavioral Risk Factor Surveillance System (BRFSS) surveys. The results showed that 4.0% reported falling asleep while driving during the previous 30 days. In addition to known risk factors, drowsy driving was more prevalent among binge drinkers than non-binge drinkers or abstainers and also more prevalent among drivers who sometimes, seldom, or never wear seatbelts while driving or riding in a car, compared with those who always or almost always wear seatbelts. Drowsy driving did not vary significantly by self-reported smoking status. Interventions designed to reduce binge drinking and alcohol-impaired driving, to increase enforcement of seatbelt use, and to encourage adequate sleep and seeking treatment for sleep disorders might contribute to reductions in drowsy driving crashes and related injuries.

Each year, state health departments administer BRFSS, a random-digit–dialed telephone survey of noninstitutionalized adults aged ≥18 years, in collaboration with CDC. The response rate is the number of respondents who completed the survey as a proportion of all eligible and likely eligible persons.* The median survey response rate for all 50 states and the District of Columbia, was 49.7% in 2011 (range = 33.8%–64.1%) and 45.2% in 2012 (range = 27.7%–60.4%). Questions regarding insufficient sleep were asked in an optional sleep module used by only 10 states and Puerto Rico†; therefore, this analysis was confined to those 10 states and Puerto Rico. Response rates for the 10 states and Puerto Rico had a median of 51.7% in 2011 and ranged from 35.4% (California) to 61.7% (Puerto Rico); those states used the module again in 2012. Aggregating data for two surveys increased the sample size in those states; sampling weights in each year were halved before obtaining the prevalence estimates in those states. The prevalence of drowsy driving was not statistically different when comparing 2011 and 2012 for the states that used the module for both years.

†Alaska, California, Kansas, Maine, Massachusetts, Minnesota, Nebraska, Nevada, Oregon, and Puerto Rico used the insufficient sleep module in 2011. Alaska, Kansas, Nevada, Oregon, and Puerto Rico used the module again in 2012. Aggregating data for two surveys increased the sample size in those states; sampling weights in each year were halved before obtaining the prevalence estimates in those states. The prevalence of drowsy driving was not statistically different when comparing 2011 and 2012 for the states that used the module for both years.
response rates in 2012 had a median of 47.0% and ranged from 39.4% (Oregon) to 58.2% (Puerto Rico).§

A total of 92,102 respondents were asked, “During the past 30 days, have you ever nodded off or fallen asleep, even just for a brief moment, while driving?” Drowsy driving was defined as an affirmative response, whereas no drowsy driving included responses of “no” and also 81 responses of “don’t know/not sure.” Those who responded that they did not drive or did not have a license (5,575) were excluded from the analysis. Frequent insufficient sleep was defined as ≥14 days in response to “During the past 30 days, for about how many days have you felt you did not get enough rest or sleep?” Respondents were also asked: “On average, how many hours of sleep do you get in a 24-hour period? Think about the time you actually spend sleeping or napping, not just the amount of sleep you think you should get.” “Do you snore?” and “During the past 30 days, for about how many days did you find yourself unintentionally falling asleep during the day (categorized as none or ≥1 day)?”

Smoking status included current smoker, former smoker, and never smoker. Alcohol use status included binge drinker, non-binge drinker, and abstainer. Binge drinking was defined for men as having five or more drinks and for women as having four or more drinks on at least one occasion during the preceding month. Abstainers were respondents who had not consumed any alcoholic beverages during the preceding month. Respondents also were asked about their frequency of seatbelt use and categorized as “always or almost always” and “sometimes, seldom, or never” users.

The age-adjusted prevalences of falling asleep while driving (with 95% confidence intervals) were calculated by state, selected demographic characteristics, sleep-related characteristics, and risk behaviors using statistical software that took into account the complex sampling design. For comparisons of prevalence between subgroups, statistical significance (p<0.05) was determined by using t-tests. All indicated differences between subgroups are statistically significant.

Among the 92,102 respondents, 4.0% reported falling asleep while driving during the preceding 30 days (Table 1). Drowsy driving decreased with age (linear trend p<0.001) from 5.9% among adults aged 18–24 years to 1.8% among adults aged ≥65 years. Overall, the age-adjusted prevalence of drowsy driving was higher among men than women (5.0% compared with 3.0%, p<0.001). The prevalence of drowsy driving for men aged 18–34 years was 6.9%, compared with 3.5% for women in the same age group. Drowsy driving prevalence was higher among all other racial/ethnic groups compared with non-Hispanic whites (p<0.05) and did not differ by educational level. Among the 10 states and Puerto Rico, drowsy driving prevalence ranged from 1.8% in Oregon to 7.4% in Puerto Rico (Table 1). These prevalence estimates can be extrapolated to approximately 1.8 million

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TABLE 1. Age-adjusted* prevalence of falling asleep while driving in the preceding 30 days among drivers aged ≥18 years, by selected characteristics — Behavioral Risk Factor Surveillance System, 10 states and Puerto Rico, 2011–2012

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>No.†</th>
<th>No. who reported falling asleep while driving</th>
<th>%§ (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>92,102</td>
<td>2,602</td>
<td>4.0 (3.7–4.4)</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>37,105</td>
<td>1,368</td>
<td>5.0 (4.4–5.7)</td>
</tr>
<tr>
<td>Women</td>
<td>54,997</td>
<td>1,234</td>
<td>3.0 (2.6–3.5)</td>
</tr>
<tr>
<td>Age group (yrs)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18–24</td>
<td>3,885</td>
<td>179</td>
<td>5.9 (4.8–7.0)</td>
</tr>
<tr>
<td>25–34</td>
<td>8,365</td>
<td>353</td>
<td>4.8 (3.9–5.7)</td>
</tr>
<tr>
<td>35–44</td>
<td>12,177</td>
<td>507</td>
<td>4.4 (3.7–5.1)</td>
</tr>
<tr>
<td>45–54</td>
<td>17,359</td>
<td>592</td>
<td>4.2 (3.5–5.0)</td>
</tr>
<tr>
<td>55–64</td>
<td>21,519</td>
<td>564</td>
<td>2.9 (2.3–3.5)</td>
</tr>
<tr>
<td>≥65</td>
<td>28,797</td>
<td>407</td>
<td>1.8 (1.5–2.3)</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>70,783</td>
<td>1,605</td>
<td>2.9 (2.6–3.3)</td>
</tr>
<tr>
<td>Black, non-Hispanic</td>
<td>2,595</td>
<td>110</td>
<td>7.0 (4.9–9.9)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>12,678</td>
<td>704</td>
<td>4.9 (4.2–5.7)</td>
</tr>
<tr>
<td>Other race†, non-Hispanic</td>
<td>5,425</td>
<td>167</td>
<td>6.5 (4.8–8.7)</td>
</tr>
<tr>
<td>Education level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than high school diploma or GED</td>
<td>6,701</td>
<td>199</td>
<td>3.6 (2.6–5.1)</td>
</tr>
<tr>
<td>High school diploma or GED</td>
<td>24,633</td>
<td>655</td>
<td>4.1 (3.4–5.0)</td>
</tr>
<tr>
<td>At least some college</td>
<td>60,628</td>
<td>1,743</td>
<td>4.1 (3.7–4.7)</td>
</tr>
<tr>
<td>Employment status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>46,866</td>
<td>1,725</td>
<td>4.5 (4.0–5.1)</td>
</tr>
<tr>
<td>Unemployed</td>
<td>5,320</td>
<td>170</td>
<td>3.7 (2.6–5.1)</td>
</tr>
<tr>
<td>Retired</td>
<td>25,997</td>
<td>339</td>
<td>**</td>
</tr>
<tr>
<td>Unable to work</td>
<td>5,080</td>
<td>182</td>
<td>**</td>
</tr>
<tr>
<td>Student/Homemaker</td>
<td>8,624</td>
<td>185</td>
<td>2.5 (1.9–3.3)</td>
</tr>
<tr>
<td>Location of residence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alaska</td>
<td>7,025</td>
<td>124</td>
<td>2.1 (1.6–2.7)</td>
</tr>
<tr>
<td>California</td>
<td>9,314</td>
<td>303</td>
<td>4.5 (3.8–5.2)</td>
</tr>
<tr>
<td>Kansas</td>
<td>13,306</td>
<td>349</td>
<td>3.6 (3.1–4.1)</td>
</tr>
<tr>
<td>Maine</td>
<td>3,658</td>
<td>75</td>
<td>3.7 (2.6–5.3)</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>5,531</td>
<td>141</td>
<td>3.3 (2.4–4.5)</td>
</tr>
<tr>
<td>Minnesota</td>
<td>13,535</td>
<td>353</td>
<td>3.1 (2.6–3.6)</td>
</tr>
<tr>
<td>Nebraska</td>
<td>9,461</td>
<td>282</td>
<td>3.2 (2.6–3.9)</td>
</tr>
<tr>
<td>Nevada</td>
<td>8,039</td>
<td>182</td>
<td>2.8 (2.3–3.4)</td>
</tr>
<tr>
<td>Oregon</td>
<td>9,253</td>
<td>150</td>
<td>1.8 (1.4–2.3)</td>
</tr>
<tr>
<td>Tennessee</td>
<td>4,917</td>
<td>126</td>
<td>3.8 (2.6–5.5)</td>
</tr>
<tr>
<td>Puerto Rico</td>
<td>8,063</td>
<td>517</td>
<td>7.4 (6.6–8.2)</td>
</tr>
<tr>
<td>Median (range)</td>
<td></td>
<td></td>
<td>3.3 (1.8–7.4)</td>
</tr>
</tbody>
</table>

Abbreviations: CI = confidence interval; GED = General Educational Development certificate.
* Age adjusted to the 2000 projected U.S. population, except for age groups.
† Unweighted sample. Categories might not sum to survey total because of missing responses.
§ Weighted percentage.
¶ Asian, Native Hawaiian or Pacific Islander, American Indian/Alaska Native, and multiracial.
** Estimate is unreliable. Relative standard error >0.3.

Drivers driving drowsy in the last 30 days in the 10 states and Puerto Rico included in this report.¶

Respondents who usually slept ≤5 hours per 24 hours reported drowsy driving more often than those who slept 6 hours or ≥7 hours (9.1% compared with 5.2% [p<0.001] and 2.7% [p<0.001], respectively), as did snorers compared with non-snorers (5.6% compared with 2.9%, p<0.001) (Table 2).

In addition, drowsy driving was more common among binge drinkers than non-binge drinkers and abstainers (5.2% compared with 3.7% [p=0.028] and 3.6% [p=0.005], respectively). Drowsy driving also was more common among drivers who sometimes, seldom, or never wear seatbelts while driving or riding in a car compared with those who always or almost always wear seatbelts (6.6% compared with 3.9%, p=0.005). Drowsy driving did not vary by smoking status.
CDC has named motor vehicle injury prevention as one of its 10 “winnable battles.”** More than 30,000 persons have died in motor vehicle crashes each year since 1963 (4). In 2012, nearly one third (10,322) of the 33,561 traffic fatalities occurred in alcohol-impaired driving crashes (i.e., a driver involved in the crash had a blood alcohol content of ≥0.08 g/dL), and 70% of the alcohol-impaired drivers involved in these fatal crashes had a blood alcohol content of ≥0.15 g/dL, indicating binge drinking.†† In addition, half of vehicle occupants killed were not wearing seatbelts (3), and as many as 7,500 fatal crashes in the United States each year might involve drowsy drivers (1,2).

Effective interventions exist to address binge drinking, alcohol-impaired driving, and nonuse of seatbelts. Information about these interventions has been published by the Community Preventive Services Task Force.§§ This study showed that drivers who reported binge drinking or infrequent (sometimes, seldom, or never) use of seatbelts also were more likely to drive drowsy; therefore, enforcement efforts aimed at these behaviors might also help reduce drowsy driving crashes and resulting injuries, as well as provide opportunities for increasing awareness of the dangers of drowsy driving. Because young men are more likely to engage in all of these risk behaviors, interventions might be aimed at this high-risk population.

Falling asleep while driving is clearly dangerous, but drowsiness also impairs the ability to drive safely even if drivers do not fall asleep. Studies have observed that drowsy drivers take

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>No.</th>
<th>No. who reported falling asleep while driving</th>
<th>%</th>
<th>(95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sleep patterns</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequent insufficient sleep (≥14 days of insufficient rest or sleep in the preceding 30 days)</td>
<td>Yes</td>
<td>22,711</td>
<td>1,139</td>
<td>6.2 (5.4–7.1)</td>
</tr>
<tr>
<td>No</td>
<td>69,279</td>
<td>1,462</td>
<td>3.2 (2.8–3.6)</td>
<td></td>
</tr>
<tr>
<td>Usual sleep duration (per 24 hrs)</td>
<td>≤5 hrs</td>
<td>8,693</td>
<td>568</td>
<td>9.1 (7.5–11.2)</td>
</tr>
<tr>
<td>6 hrs</td>
<td>19,610</td>
<td>789</td>
<td>5.2 (4.4–6.1)</td>
<td></td>
</tr>
<tr>
<td>7 hrs</td>
<td>9,267</td>
<td>623</td>
<td>3.0 (2.4–3.7)</td>
<td></td>
</tr>
<tr>
<td>8 hrs</td>
<td>25,710</td>
<td>417</td>
<td>2.4 (1.9–3.0)</td>
<td></td>
</tr>
<tr>
<td>≥9 hrs</td>
<td>9,482</td>
<td>179</td>
<td>2.7 (1.8–3.8)</td>
<td></td>
</tr>
<tr>
<td>Snoring</td>
<td>Yes</td>
<td>43,902</td>
<td>1,541</td>
<td>5.6 (4.8–6.5)</td>
</tr>
<tr>
<td>No</td>
<td>48,178</td>
<td>1,061</td>
<td>2.9 (2.6–3.4)</td>
<td></td>
</tr>
<tr>
<td>Unintentionally fell asleep during the day (≠1 day in the preceding 30 days)</td>
<td>Yes</td>
<td>29,394</td>
<td>1,815</td>
<td>8.9 (8.0–9.9)</td>
</tr>
<tr>
<td>No</td>
<td>62,652</td>
<td>786</td>
<td>1.6 (1.3–1.9)</td>
<td></td>
</tr>
<tr>
<td><strong>Risk behaviors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking status</td>
<td>Current smoker</td>
<td>13,435</td>
<td>382</td>
<td>4.3 (3.3–5.5)</td>
</tr>
<tr>
<td>Former smoker</td>
<td>27,291</td>
<td>687</td>
<td>3.7 (3.0–4.6)</td>
<td></td>
</tr>
<tr>
<td>Never smoker</td>
<td>50,995</td>
<td>1,522</td>
<td>4.0 (3.6–4.5)</td>
<td></td>
</tr>
<tr>
<td>Alcohol use (previous 30 days)</td>
<td>None (abstainers)</td>
<td>42,575</td>
<td>1,138</td>
<td>3.6 (3.1–4.1)</td>
</tr>
<tr>
<td>Binge drinkers¶</td>
<td>11,720</td>
<td>500</td>
<td>5.2 (4.3–6.3)</td>
<td></td>
</tr>
<tr>
<td>Non-binge drinkers **</td>
<td>36,588</td>
<td>916</td>
<td>3.8 (3.2–4.6)</td>
<td></td>
</tr>
<tr>
<td>Seatbelt use</td>
<td>Always/almost always</td>
<td>87,175</td>
<td>2,361</td>
<td>3.9 (3.5–4.3)</td>
</tr>
<tr>
<td>Sometimes, seldom, or never</td>
<td>4,835</td>
<td>238</td>
<td>6.6 (5.0–8.8)</td>
<td></td>
</tr>
</tbody>
</table>

Abbreviation: CI = confidence interval. 
* Age adjusted to the 2000 projected U.S. population. 
† The sleep module was used by Alaska, California, Kansas, Maine, Massachusetts, Minnesota, Nebraska, Nevada, Oregon, Tennessee, and Puerto Rico in 2011 and again by Alaska, Kansas, Nevada, Oregon, and Puerto Rico in 2012. 
§ Unweighted sample. Categories might not sum to survey total because of missing responses. 
¶ Binge drinking was defined for men as having five or more drinks and for women as having four or more drinks on one occasion during the previous 30 days. 
** Includes respondents who reported consuming alcohol in previous 30 days, but not binge drinking.
What is already known on this topic?
As many as 7,500 fatal motor vehicle crashes in the United States each year might involve drowsy driving, and 4.2% of adult respondents to a 2009–2010 survey reported falling asleep while driving at least once during the previous 30 days. Adults who reported usually sleeping ≤6 hours per day, snoring, or unintentionally falling asleep during the day were more likely to report falling asleep while driving than adults who did not.

What is added by this report?
CDC analyzed data regarding drowsy driving by selected characteristics, including sleep patterns and risk behaviors, from 92,102 adult survey respondents in 10 states and Puerto Rico in 2011–2012. Among the respondents, 4% reported having fallen asleep while driving in the previous 30 days. In addition to known risk factors, drowsy driving was more prevalent among men, younger drivers, binge drinkers, and among drivers who did not regularly use seatbelts compared with other respondents.

What are the implications for public health practice?
Interventions designed to reduce binge drinking and alcohol-impaired driving, to enforce seatbelt use, and to encourage adequate sleep and seeking treatment for sleep disorders might contribute to reductions in drowsy driving crashes and their related deaths and injuries.

longer to react, are less attentive to their environment, and have impaired decision-making skills (5), all of which can contribute to vehicle crashes. Sleep-related crashes are more likely to happen at times when drivers are more likely to be sleepy: at night or in the midafternoon (6,7). Although these crashes often involve a single vehicle going off the road, sleep-related crashes also are disproportionately represented in rear-end and head-on collisions. Finally, injuries and fatalities are more common in drowsy driving crashes than non-drowsy driving crashes (6). Various technologies have been developed to prevent drowsy driving crashes (7). Detection technologies use in-vehicle devices to sense changes in the driver that indicate sleepiness, such as excessive eyelid closure and head-nodding. Other technologies, such as the use of rumble strips (shoulder or center line), in-vehicle lane departure warning systems, and collision avoidance systems, are designed to prevent crashes from driver fatigue or inattention. Although evaluation of the effectiveness of in-vehicle technologies in preventing crashes is in the early stages, results to date are promising (7,8).

The findings in this report are subject to at least three limitations. First, estimates of falling asleep while driving are based on self-report, which likely result in underestimates. Persons often are not aware that they have fallen asleep, even after several minutes asleep (9). Second, data were not collected for all states and might not be generalizable to the rest of the United States. In addition, because response rates for the states that used the optional sleep module during 2011–2012 were relatively low, ranging from 35.4% to 60.9% (median = 51.7%), nonresponse bias might have affected the results. Finally, BRFSS does not survey persons aged <18 years, thereby excluding young drivers who might be at increased risk for drowsy driving (6).

To prevent drowsy driving, drivers should get enough sleep (7–8 hours for adults), seek treatment for sleep disorders, and avoid alcohol use before driving. Even small amounts of alcohol can amplify driver impairment caused by drowsiness (10). Drivers should recognize the symptoms of drowsiness and respond appropriately when on the road. Symptoms of drowsiness include frequent yawning or blinking, difficulty remembering the past few miles driven, missing exits, drifting from a lane, or hitting a rumble strip. Drivers are advised to get off the road and rest until no longer drowsy or change drivers if they experience these symptoms. Turning up the radio, opening the window, and turning up the air conditioner have not proven to be effective techniques to stay awake (7). Public health professionals in motor vehicle injury prevention can learn about drowsy driving countermeasures and other highway safety countermeasures in the National Highway Traffic Safety Administration’s guide Countermeasures That Work.

References


¶¶ 1Division of Population Health, National Center for Chronic Disease Prevention and Health Promotion; 2Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control, CDC (Corresponding author: Anne G. Wheaton, awheaton@cdc.gov, 770-488-5362)


**Introduction**

Persons in the United States consume opioid pain relievers (OPR) at a greater rate than any other nation. They consume twice as much per capita as the second ranking nation, Canada (1). Overprescribing of opioid pain relievers can result in multiple adverse health outcomes, including fatal overdoses. Interstate variation in rates of prescribing OPR and other prescription drugs prone to abuse, such as benzodiazepines, might indicate areas where prescribing patterns need further evaluation.

**Methods:** CDC analyzed a commercial database (IMS Health) to assess the potential for improved prescribing of OPR and other drugs. CDC calculated state rates and measures of variation for OPR, long-acting/extended-release (LA/ER) OPR, high-dose OPR, and benzodiazepines.

**Results:** In 2012, prescribers wrote 82.5 OPR and 37.6 benzodiazepine prescriptions per 100 persons in the United States. State rates varied 2.7-fold for OPR and 3.7-fold for benzodiazepines. For both OPR and benzodiazepines, rates were higher in the South census region, and three Southern states were two or more standard deviations above the mean. Rates for LA/ER and high-dose OPR were highest in the Northeast. Rates varied 22-fold for one type of OPR, oxymorphone.

**Conclusions:** Factors accounting for the regional variation are unknown. Such wide variations are unlikely to be attributable to underlying differences in the health status of the population. High rates indicate the need to identify prescribing practices that might not appropriately balance pain relief and patient safety.

**Implications for Public Health:** State policy makers might reduce the harms associated with abuse of prescription drugs by implementing changes that will make the prescribing of these drugs more cautious and more consistent with clinical recommendations.

**Abstract**

**Background:** Overprescribing of opioid pain relievers (OPR) can result in multiple adverse health outcomes, including fatal overdoses. Interstate variation in rates of prescribing OPR and other prescription drugs prone to abuse, such as benzodiazepines, might indicate areas where prescribing patterns need further evaluation.

**Methods:** CDC analyzed a commercial database (IMS Health) to assess the potential for improved prescribing of OPR and other drugs. CDC calculated state rates and measures of variation for OPR, long-acting/extended-release (LA/ER) OPR, high-dose OPR, and benzodiazepines.

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**Implications for Public Health:** State policy makers might reduce the harms associated with abuse of prescription drugs by implementing changes that will make the prescribing of these drugs more cautious and more consistent with clinical recommendations.
Results
Prescribers wrote 82.5 OPR prescriptions and 37.6 benzodiazepine prescriptions per 100 persons in the United States in 2012 (Table). LA/ER OPR accounted for 12.5%, and high-dose OPR accounted for 5.1% of the estimated 258.9 million OPR prescriptions written nationwide. Prescribing rates varied widely by state for all drug types. For all OPR combined, the prescribing rate in Alabama was 2.7 times the rate in Hawaii. The high/low ratio was greater for LA/ER OPR and high-dose OPR compared with all OPR together: for high-dose OPR, state rates ranged 4.6-fold (Delaware versus Texas), and for LA/ER OPR, state rates ranged 5.3-fold (Maine versus Texas). State rates ranged 3.7-fold (West Virginia versus Hawaii) for benzodiazepines. For both OPR and benzodiazepines, Alabama, Tennessee, and West Virginia were the three highest-prescribing states. Among the OPR drugs, interstate variation was greatest for oxymorphone (CV = 0.72, IQ = 2.50, high/low = 21.9).

OPR prescribing rates correlated with benzodiazepine prescribing rates ($r = 0.80; p<0.01$).

The distribution of state prescribing rates was skewed toward higher rates (Figure 1). For both OPR and benzodiazepine rates, Alabama, Tennessee, and West Virginia were ≥2 SDs above the mean. For LA/ER opioids, Maine and Delaware were ≥2 SDs above the mean. For high-dose OPR, Delaware, Tennessee, and Nevada were ≥2 SDs above the mean. Texas's rate for LA/ER OPR was the only rate ≥2 SDs below the mean for any category.

The South region had the highest rate of prescribing OPR and benzodiazepines (Figure 2). The Northeast had the highest rate for high-dose OPR and LA/ER OPR, although high rates also were observed in individual states in the South and West. In the Northeast, 17.8% of OPR prescribed were LA/ER OPR. States in the South ranked highest for all individual opioids except for hydromorphone, fentanyl, and methadone, for which the highest rates were in Vermont, North Dakota, and Oregon, respectively.

Conclusions and Comment
The rates of use of pain relievers and benzodiazepine sedatives showed about three- to five-fold variation from the highest to lowest states. Variation was greater for the LA/ER and high-dose formulations of OPR. Higher OPR and benzodiazepine prescribing rates in the South presented in this report are similar to the findings of higher prescribing rates for other drugs in the South, including antibiotics (7), stimulants in children (8), and medications that are high-risk for the elderly (9). Previous studies have found that regional prescribing variation cannot be explained by variation in the prevalence of the conditions treated by these drugs (5,7). Other research indicates that wide variation in rates of surgery and hospitalization also cannot be explained by the underlying health status of the population (9,10). Wide variation in the use of medical technology, including pharmacotherapy, usually indicates a lack of consensus on the appropriateness of its use (9). Therefore, one possible explanation for the results of this study is the lack of consensus among health-care providers on whether and how to use OPR for chronic, noncancer pain (2).

Research on small-area variation in health care indicates that high rates of use of prescription drugs and medical procedures do not necessarily translate into better outcomes or greater patient satisfaction. In fact, high rates of use might produce worse outcomes (11,12). In this case, greater use of opioids and benzodiazepines might expose populations to greater risks for overdose and falls (2,3,13,14). Greater use is also associated with abuse (4), although such use might both cause and be caused by abuse. The wide variation in rates of use for LA/ER
Table: Prescribing rates per 100 persons, by state and drug type — IMS Health, United States, 2012

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Opioids, in particular, might reflect the demand for these drugs in the drug-using community and their selective prescribing, often in combination with sedatives and muscle relaxants, by unscrupulous pain clinics (14). Factors that might explain why some states have consistently lower rates of prescribing also need to be identified in future research.

The findings in this report are subject to at least four limitations. First, IMS estimates have not been validated, and they do not include prescriptions dispensed by prescribers, hospital/clinic pharmacies, or health maintenance organization pharmacies, potentially biasing rates downward. Second, prescriptions might be dispensed to nonstate residents, as commonly occurred in Florida during the previous decade (14). Third, prescribing rates cannot be correlated with rates of outcomes, such as overdoses with these drugs, because drug-specific overdose data are not available for most jurisdictions. Finally, the prescribing rates shown for a state might conceal large differences in rates within the state (15).

Evaluating and modifying state prescribing patterns is particularly important in states with the highest prescribing rates for drugs prone to abuse. States can determine the factors driving their high prescribing rates by using data from their prescription drug monitoring programs (PDMPs), systems that record all prescriptions for drugs prone to abuse. They can also use PDMPs to evaluate the impacts of policy changes. Recently, a few states have been able to change prescribing patterns by increasing prescriber use of their PDMPs. New York and Tennessee, for example, mandated prescriber use of the state PDMP in 2012. They subsequently used their PDMPs to document declines of 75% and 36%, respectively, in the inappropriate use of multiple prescribers by patients (16).
Key Points

- Opioid pain relievers and benzodiazepine sedatives are commonly prescribed in the United States. They are frequently prescribed to the same patient.
- Overprescribing of opioid pain relievers can result in multiple adverse health outcomes, including fatal overdoses.
- Wide variation exists from one state to another in prescribing rates for these drugs. For states that prescribe well above the national rate, the need for a change in prescribing practices is urgent.
- CDC recommends that states make active use of their prescription drug monitoring programs to calculate current rates of prescribing, examine variations within the state, and track the impact of safer prescribing initiatives.
- Additional information is available at http://www.cdc.gov/vitalsigns.

States can take other actions that will affect prescribers. Developing or adopting existing guidelines for prescribing OPR and other controlled substances can establish local standards of care that might help bring prescribing rates more in line with current best practices. State Medicaid programs can manage pharmacy benefits so as to promote cautious, consistent use of OPR and benzodiazepines. In addition, a number of states have passed laws designed to address the most egregious prescribing excesses. Florida, for example, enacted pain clinic legislation in 2010 and prohibited dispensing by prescribers in 2011. It subsequently experienced a decline in rates of drug diversion (17) and a 52% decline in its oxycodone overdose death rate (18). Guidelines, insurance strategies, and laws are promising interventions that need further evaluation. Patients in all states deserve access to safe and effective evidence-based medical care, and prescribers should carefully consider the balance between risks and benefits in any pharmacotherapy.

Acknowledgments

Rose Rudd, MSPH, National Center for Injury Prevention and Control, CDC. Caitlin Koris, Rollins School of Public Health, Emory University.
FIGURE 1. Distribution of state prescribing rates,* by drug type — IMS Health, United States, 2012

* State rates are rounded to the nearest 0.25 standard deviation for purposes of presentation.

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References

FIGURE 2. Prescribing rates per 100 persons (in quartiles), by state and drug type — IMS Health, United States, 2012


On July 1, 2014, this report was posted as an MMWR Early Release on the MMWR website (http://www.cdc.gov/mmwr).

During 2003–2009, the number of deaths caused by drug overdose in Florida increased 61.0%, from 1,804 to 2,905, with especially large increases in deaths caused by the opioid pain reliever oxycodone and the benzodiazepine alprazolam (J). In response, Florida implemented various laws and enforcement actions as part of a comprehensive effort to reverse the trend. This report describes changes in overdose deaths for prescription and illicit drugs and changes in the prescribing of drugs frequently associated with these deaths in Florida after these policy changes. During 2010–2012, the number of drug overdose deaths decreased 16.7%, from 3,201 to 2,666, and the deaths per 100,000 persons decreased 17.7%, from 17.0 to 14.0. Death rates for prescription drugs overall decreased 23.2%, from 14.5 to 11.1 per 100,000 persons. The decline in the overdose deaths from oxycodone (52.1%) exceeded the decline for other opioid pain relievers, and the decline in deaths for alprazolam (35.6%) exceeded the decline for other benzodiazepines. Similar declines occurred in prescribing rates for these drugs during this period. The temporal association between the legislative and enforcement actions and the substantial declines in prescribing and overdose deaths, especially for drugs favored by pain clinics, suggests that the initiatives in Florida reduced prescription drug overdose fatalities.

Florida gained notoriety after 2007 because of the proliferation of pain clinics in the state that were prescribing large quantities of drugs for pain with little medical justification and were being used primarily by persons abusing or diverting opioid analgesics, benzodiazepines, and muscle relaxants (2). In 2010, Florida was also home to 98 of the 100 U. S. physicians who dispensed the highest quantities of oxycodone directly from their offices. In response, Florida enacted several measures to address prescribing that was inconsistent with best practices. The Florida legislature required that pain clinics treating pain with controlled substances register with the state by January 4, 2010. In February 2010, the Drug Enforcement Administration and various Florida law enforcement agencies began to work together in Operation Pill Nation (3). Pain clinic regulations were further expanded later in 2010. In February 2011, law enforcement conducted statewide raids, resulting in numerous arrests, seizures of assets, and pain clinic closures. In July of that year, coinciding with a public health emergency declaration by the Florida Surgeon General, the state legislature prohibited physician dispensing of schedule II or III drugs from their offices and activated regional strike forces to address the emergency. Mandatory dispenser reporting to the newly established prescription drug monitoring program began in September 2011. Finally, in 2012, the legislature expanded regulation of wholesale drug distributors and created the Statewide Task Force on Prescription Drug Abuse and Newborns.

Florida Medical Examiners Commission (FMEC) data from the period 2003–2012 were analyzed for this report. Florida has a regional system of 24 district medical examiners with jurisdiction over all drug-related deaths occurring in the state. Florida has established a unique system that requires each medical examiner to submit a report to the FMEC on every death in which a drug is detected in a decedent. The report includes information on the manner of death (unintentional, suicide, homicide, or undetermined) and which of 50 monitored drugs were detected in the decedent (including prescription drugs, illicit drugs, and alcohol). For each drug detected, the medical examiner determines whether it played a causal role in the death or was merely present (4). Only those deaths caused by one or more drugs (i.e., overdoses) were included in this analysis. Deaths were not restricted to Florida residents.

Drug overdose death rates per 100,000 Florida residents were computed using population estimates compiled by the Florida Department of Health in consultation with the Florida Legislature’s Office of Economic and Demographic Research.* Rates were calculated for deaths caused by all drugs, all prescription drugs, opioid analogues (including oxycodone, methadone, hydrocodone, morphine, and hydromorphone), benzodiazepines (including alprazolam), carisoprodol (a muscle relaxant), illicit drugs (including heroin and cocaine), and alcohol. Most deaths included more than one drug, so rates (including those for alcohol) refer to deaths involving a drug type irrespective of whether they were single or multidosed. The temporal significance of changes in death rates from 2010 to 2012 was assessed using z-tests.

Rates of prescribing selected prescription drugs in Florida were calculated from statewide estimates of prescription counts from the IMS Health National Prescription Audit (NPA). NPA provides state-level estimates of the numbers of prescriptions

The rate of drug overdose deaths increased 58.9% during 2003–2010. The number of drug overdose deaths decreased 16.7%, from 3,201 to 2,666, and the rate decreased 17.7% during 2010 and 2012 (Table 1, Figure 1). This change was largely attributable to the decrease in prescription drug-related deaths, which peaked at 2,722 in 2010 and decreased to 2,116 in 2012. The prescription drug overdose death rate decreased 23.2% to 11.1 per 100,000 persons, the lowest rate since 2007. Opioid analgesic overdose deaths declined from 2,560 to 1,892, with a corresponding rate decrease of 27.0%. Oxycodone, methadone, and hydrocodone rates decreased, whereas morphine and hydromorphone rates increased. Benzodiazepine overdose death rates decreased 28.4%, with alprazolam rates down 35.6%. The rate of carisoprodol-related deaths also declined, but not significantly. Prescribing declined for drugs whose overdose rate declined and increased for drugs whose overdose rate increased. For example, oxycodone prescribing declined 24.0%, whereas morphine prescribing increased 37.6%. Overall illicit drug overdose death rates did not change significantly, although heroin overdose deaths increased from 48 to 108, a change from 0.3 to 0.6 per 100,000 persons. Alcohol overdose death rates were unchanged. The semiannual time trends in overdose rates for specific drugs indicate a steady decline beginning in 2011 rather than an abrupt decline following any one of the legislative and enforcement actions taken in Florida (Figure 2).

Although the oxycodone overdose death rate decreased across all demographic groups, the greatest declines were among males (57.0%) and non-Hispanic whites (52.6%) (Table 2). Decedents who were aged 0–24 years (67.0%) and 25–34 years (66.7%) showed larger decreases than older decedents. The rate of deaths ruled unintentional showed a larger decrease (53.9%) than those of suicide (37.8%) or undetermined intent (29.0%). Additionally, the rate of deaths in which oxycodone and alprazolam were both identified as causal declined 61.5%.

**Discussion**

This analysis showed that policy changes in Florida were followed by declines in the prescribing of drugs, especially those favored by Florida prescribing dispensers and pain clinics, as well as by declines in overdose deaths involving those drugs. Florida has reported that approximately 250 pain clinics were closed by 2013, and the number of high-volume oxycodone dispensing prescribers declined from 98 in 2010 to 13 in 2012 and zero in 2013 (2). Law enforcement agencies in Florida also reported that rates of drug diversion (i.e., channeling of prescription drugs to illicit markets) declined during 2010–2012 (6). Preliminary data for the first half of 2013 from the FMEC indicate a continued decline in oxycodone and alprazolam overdose deaths (4). These changes might represent the first documented substantial decline in drug overdose mortality in any state during the past 10 years.

Although the combined state initiatives were followed by the desired effect, determining the extent of each policy’s contribution to the decline in overdose deaths in Florida is not possible. Declines in overdoses of oxycodone might also have been related to the transition in late 2010 to a formulation of extended-release oxycodone designed to be abuse-resistant (7), but most of the decline in oxycodone prescribing and overdoses occurred after 2011. The increase in deaths associated with heroin and hydromorphone and morphine after 2010 might be a sign of a switch to use of alternative opioids. However, the effect of such a switch was limited: 668 fewer opioid analgesic overdose deaths occurred in 2012, compared with 60 more heroin deaths. Heroin deaths fluctuated widely during 2003–2012, so other factors might be involved. Moreover, other states that did not experience declines in prescription opioid deaths have reported increases in heroin overdose deaths during 2010–2012 (8). National data indicate a substantial increase in heroin overdose deaths during 2010–2011 (CDC WONDER, unpublished data, 2014).
The findings in this report are subject to at least five limitations. First, rates might be overestimated by the inclusion of nonstate residents, but the impact of this factor on trends is likely to be small (Florida Medical Examiners Commission, unpublished data, 2005–2008). Second, deaths from heroin might be underestimated because only the metabolites of heroin, such as morphine, are usually present in postmortem toxicology specimens. For prescription drug overdose deaths, however, the FMEC data provide a more complete accounting than death certificates (9). Third, prescription counts are estimated by a proprietary method and therefore include an undisclosed amount of error. Fourth, the role of other factors that might have affected prescribing and/or overdose death rates during this period (e.g., greater awareness of the problem) could not be evaluated. The absence of similar recent drugspecific overdose mortality data from other states precluded a comparison with other jurisdictions not making policy changes. Finally, the data sources available for this investigation did not permit any assessment of potential unintended consequences of these policy changes, such as reduction of

TABLE 1. Overdose death rates,* number of overdose deaths, and prescribing (Rx) rates † for selected substances, by year — Florida, 2003–2012

<table>
<thead>
<tr>
<th>Substance</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>% change to 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescription drugs</td>
<td>7.3</td>
<td>8.2</td>
<td>8.6</td>
<td>9.5</td>
<td>10.9</td>
<td>11.8</td>
<td>13.3</td>
<td>14.5</td>
<td>13.5</td>
<td>11.1</td>
<td>-23.2ências</td>
</tr>
<tr>
<td>Opioid analgesics</td>
<td>6.7</td>
<td>7.7</td>
<td>7.9</td>
<td>8.8</td>
<td>10.2</td>
<td>10.9</td>
<td>12.4</td>
<td>13.6</td>
<td>12.5</td>
<td>9.9</td>
<td>-27.0</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>1.8</td>
<td>1.9</td>
<td>1.9</td>
<td>2.7</td>
<td>3.8</td>
<td>5.0</td>
<td>6.2</td>
<td>8.1</td>
<td>6.6</td>
<td>3.9</td>
<td>-52.1</td>
</tr>
<tr>
<td>Rx rate</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Methadone</td>
<td>2.1</td>
<td>3.2</td>
<td>3.5</td>
<td>3.9</td>
<td>4.2</td>
<td>3.7</td>
<td>3.8</td>
<td>3.7</td>
<td>3.6</td>
<td>2.7</td>
<td>-27.5</td>
</tr>
<tr>
<td>Rx rate</td>
<td>367</td>
<td>556</td>
<td>620</td>
<td>716</td>
<td>785</td>
<td>693</td>
<td>720</td>
<td>694</td>
<td>691</td>
<td>511</td>
<td>-26.4</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>1.1</td>
<td>1.3</td>
<td>1.2</td>
<td>1.3</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
<td>1.6</td>
<td>1.4</td>
<td>1.8</td>
<td>2.2</td>
</tr>
<tr>
<td>Rx rate</td>
<td>180</td>
<td>228</td>
<td>221</td>
<td>236</td>
<td>264</td>
<td>270</td>
<td>265</td>
<td>315</td>
<td>307</td>
<td>345</td>
<td>-22.2</td>
</tr>
<tr>
<td>Morphine</td>
<td>1.3</td>
<td>1.2</td>
<td>1.4</td>
<td>1.3</td>
<td>1.4</td>
<td>1.6</td>
<td>1.6</td>
<td>1.4</td>
<td>1.8</td>
<td>2.2</td>
<td>56.2</td>
</tr>
<tr>
<td>Rx rate</td>
<td>217</td>
<td>216</td>
<td>247</td>
<td>229</td>
<td>255</td>
<td>300</td>
<td>302</td>
<td>262</td>
<td>345</td>
<td>414</td>
<td>-8.7</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.3</td>
<td>0.3</td>
<td>0.5</td>
<td>0.9</td>
<td>189.9</td>
</tr>
<tr>
<td>Rx rate</td>
<td>12</td>
<td>20</td>
<td>24</td>
<td>31</td>
<td>36</td>
<td>41</td>
<td>64</td>
<td>60</td>
<td>99</td>
<td>176</td>
<td>193.3</td>
</tr>
<tr>
<td>Other opioid analgesics</td>
<td>1.6</td>
<td>1.5</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
<td>1.7</td>
<td>1.5</td>
<td>2.1</td>
<td>2.2</td>
<td>2.0</td>
<td>-4.5</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>2.2</td>
<td>2.6</td>
<td>3.2</td>
<td>3.5</td>
<td>4.0</td>
<td>5.0</td>
<td>5.9</td>
<td>6.9</td>
<td>6.8</td>
<td>5.0</td>
<td>-28.4</td>
</tr>
<tr>
<td>Alprazolam</td>
<td>1.3</td>
<td>1.8</td>
<td>2.3</td>
<td>2.5</td>
<td>3.1</td>
<td>3.8</td>
<td>4.4</td>
<td>5.2</td>
<td>5.0</td>
<td>3.4</td>
<td>3.5</td>
</tr>
<tr>
<td>Rx rate</td>
<td>226</td>
<td>310</td>
<td>414</td>
<td>456</td>
<td>572</td>
<td>705</td>
<td>822</td>
<td>981</td>
<td>947</td>
<td>639</td>
<td>-34.9</td>
</tr>
<tr>
<td>Other benzodiazepines</td>
<td>1.1</td>
<td>1.1</td>
<td>1.2</td>
<td>1.3</td>
<td>1.4</td>
<td>1.8</td>
<td>2.2</td>
<td>2.4</td>
<td>3.0</td>
<td>2.3</td>
<td>-5.0</td>
</tr>
<tr>
<td>Carisoprodil</td>
<td>0.3</td>
<td>0.5</td>
<td>0.5</td>
<td>0.4</td>
<td>0.5</td>
<td>0.5</td>
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<td>0.6</td>
<td>0.8</td>
<td>0.5</td>
<td>-9.0</td>
</tr>
<tr>
<td>Rx rate</td>
<td>45</td>
<td>81</td>
<td>96</td>
<td>74</td>
<td>88</td>
<td>84</td>
<td>98</td>
<td>111</td>
<td>153</td>
<td>91</td>
<td>-82.6</td>
</tr>
<tr>
<td>Illicit drugs</td>
<td>4.3</td>
<td>4.4</td>
<td>4.9</td>
<td>5.1</td>
<td>5.1</td>
<td>4.1</td>
<td>3.4</td>
<td>3.6</td>
<td>3.9</td>
<td>3.8</td>
<td>5.5</td>
</tr>
<tr>
<td>Rx rate</td>
<td>737</td>
<td>771</td>
<td>882</td>
<td>936</td>
<td>935</td>
<td>768</td>
<td>635</td>
<td>678</td>
<td>739</td>
<td>724</td>
<td>6.8</td>
</tr>
<tr>
<td>Heroin</td>
<td>1.3</td>
<td>0.9</td>
<td>0.6</td>
<td>0.4</td>
<td>0.5</td>
<td>0.6</td>
<td>0.5</td>
<td>0.3</td>
<td>0.3</td>
<td>0.6</td>
<td>122.4</td>
</tr>
<tr>
<td>Cocaine</td>
<td>3.2</td>
<td>3.4</td>
<td>4.1</td>
<td>4.5</td>
<td>4.6</td>
<td>3.5</td>
<td>2.8</td>
<td>3.0</td>
<td>3.2</td>
<td>2.9</td>
<td>-3.1</td>
</tr>
<tr>
<td>Rx rate</td>
<td>541</td>
<td>591</td>
<td>732</td>
<td>829</td>
<td>843</td>
<td>648</td>
<td>529</td>
<td>561</td>
<td>604</td>
<td>550</td>
<td>-2.0</td>
</tr>
<tr>
<td>Ethanol (alcohol)</td>
<td>1.6</td>
<td>1.7</td>
<td>1.9</td>
<td>2.1</td>
<td>2.5</td>
<td>2.6</td>
<td>3.0</td>
<td>3.0</td>
<td>3.1</td>
<td>3.0</td>
<td>-0.8</td>
</tr>
<tr>
<td>Rx rate</td>
<td>279</td>
<td>293</td>
<td>343</td>
<td>378</td>
<td>466</td>
<td>489</td>
<td>559</td>
<td>572</td>
<td>590</td>
<td>574</td>
<td>0.3</td>
</tr>
<tr>
<td>All substances</td>
<td>10.7</td>
<td>11.8</td>
<td>12.4</td>
<td>13.3</td>
<td>14.4</td>
<td>14.7</td>
<td>15.8</td>
<td>17.0</td>
<td>16.5</td>
<td>14.0</td>
<td>-17.7</td>
</tr>
</tbody>
</table>

* Per 100,000 population, based on Florida Department of Health resident population estimates, available at http://www.floridacharts.com/flquery/population/populationrpt.aspx. The source of overdose death data is the Florida Medical Examiners Commission.
† Per 100,000 population, based on Florida Department of Health resident population estimates. The source of prescribing data is IMS Health’s National Prescription Audit.
§ Change in rate is statistically significant at p<0.001. Changes in prescribing rates were not tested.
¶ Many deaths had more than one drug contributing to the death; thus, the sum of the rates in each column exceeds the total death rate.
access to pain medication for legitimate prescribing indications.

Some of the measures introduced in Florida have been adopted by other states. For example, the number of states with pain clinic laws increased from three in 2010 to 11 in 2013 (10). However, more rigorous evaluations of such interventions using comparison populations are necessary.

At present, state legislation that establishes oversight over pain management clinics or describes specific registration, licensure, or ownership requirements for such clinics, coupled with restrictions on dispensing controlled substances by prescribers, can be considered promising interventions to reduce prescription drug overdose deaths.

### TABLE 2. Oxycodone overdose death rate* and number of deaths, by selected characteristics — Florida, 2010 and 2012†

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>2010</th>
<th>2012</th>
<th>% change in rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rate</td>
<td>No.</td>
<td>Rate</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>5.1</td>
<td>487</td>
<td>2.9</td>
</tr>
<tr>
<td>Male</td>
<td>11.2</td>
<td>1029</td>
<td>4.8</td>
</tr>
<tr>
<td>Age group (yrs)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0–24</td>
<td>2.7</td>
<td>156</td>
<td>0.9</td>
</tr>
<tr>
<td>25–34</td>
<td>17.3</td>
<td>394</td>
<td>5.8</td>
</tr>
<tr>
<td>35–44</td>
<td>14.4</td>
<td>349</td>
<td>6.4</td>
</tr>
<tr>
<td>45–54</td>
<td>15.0</td>
<td>412</td>
<td>8.4</td>
</tr>
<tr>
<td>≥55</td>
<td>3.6</td>
<td>205</td>
<td>2.9</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>13.2</td>
<td>1446</td>
<td>6.3</td>
</tr>
<tr>
<td>Black/Other, non-Hispanic</td>
<td>1.3</td>
<td>46</td>
<td>1.0</td>
</tr>
<tr>
<td>Hispanic</td>
<td>0.6</td>
<td>24</td>
<td>0.3</td>
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<tr>
<td>Manner of death</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Unintentional</td>
<td>7.2</td>
<td>1347</td>
<td>3.3</td>
</tr>
<tr>
<td>Suicide</td>
<td>0.7</td>
<td>124</td>
<td>0.4</td>
</tr>
<tr>
<td>Undetermined</td>
<td>0.2</td>
<td>39</td>
<td>0.1</td>
</tr>
<tr>
<td>Oxycodone and alprazolam</td>
<td>3.3</td>
<td>627</td>
<td>1.3</td>
</tr>
<tr>
<td>Total</td>
<td>8.1</td>
<td>1516</td>
<td>3.9</td>
</tr>
</tbody>
</table>

† The source of overdose death data is the Florida Medical Examiners Commission.
FIGURE 2. Semiannual drug overdose death rates* for selected drugs, and selected prescription drug diversion and misuse actions taken — Florida, 2006–2012†


† The source of overdose death data is the Florida Medical Examiners Commission.

E. July 1, 2011. Physician dispensing prohibited and statewide regional strike forces activated.
F. September 1, 2011. Mandatory reporting to prescription drug monitoring program begins.

References


Announcement

National Cleft and Craniofacial Awareness and Prevention Month — July 2014

July is National Cleft and Craniofacial Awareness and Prevention Month, an observance intended to raise awareness and improve understanding of birth defects of the head and face. Common craniofacial birth defects include orofacial clefts (cleft lip, cleft palate, or both), craniosynostosis (when the skull sutures join together prematurely), and anotia/microtia (when the ear is missing or malformed).

This year, CDC highlights research on the association between smoking during early pregnancy and orofacial clefts. Although the causes of most orofacial clefts are unknown, the 2014 Surgeon General’s report confirmed that maternal smoking during early pregnancy can cause orofacial clefts in babies (1). In the United States, approximately 7,000 babies are born with orofacial clefts each year (2). Many of those birth defects could be prevented if women did not smoke during early pregnancy.

Orofacial clefts occur very early in pregnancy. Health-care providers should encourage women who are thinking about becoming pregnant to quit smoking before pregnancy or as soon as they find out that they are pregnant. Additional information regarding National Cleft and Craniofacial Awareness and Prevention Month is available at http://www.nccapm.org/about.html.

References
Errata

Vol. 63, No. 25

In the report, “Tobacco Product Use Among Adults — United States, 2012–2013,” one of the sexual orientation categories was incorrectly listed as lesbian, gay, bisexual, or transgender (LGBT). For the 2012–2013 National Adult Tobacco Survey, respondents could self-identify as lesbian, gay, or bisexual (LGB); the measure did not specifically assess whether a respondent was transgender. In the tables, on pages 543 and 544, the second listing under “Sexual orientation” should be LGB, defined as LGB = lesbian, gay, or bisexual. On page 545, the final sentence should read, “By sexual orientation, prevalence was higher among lesbian, gay, or bisexual (LGB) adults (30.8%) than heterosexual/straight adults (20.5).” On page 546, the second sentence under “Discussion” should read, “Any tobacco use was greater among men, younger adults, non-Hispanic other adults, those living in the Midwest and South, those with less education and income, and LGB adults.”

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In the MMWR Surveillance Summary “Youth Risk Behavior Surveillance — United States, 2013,” the title for Table 23 on page 72 was incorrect. It should read, “TABLE 23. Percentage of high school students who felt sad or hopeless,* † by sex, race/ethnicity, and grade — United States, Youth Risk Behavior Survey, 2013.”
In 2011, age-adjusted rates for deaths from drug poisoning varied by state, ranging from 7.1 to 36.3 per 100,000 population. In 17 states, the age-adjusted drug-poisoning death rate was significantly higher than the overall U.S. rate of 13.2 deaths per 100,000 population. The five states with the highest poisoning death rates were West Virginia (36.3), New Mexico (26.3), Kentucky (25.0), Nevada (22.8), and Utah (19.5).


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Data presented by the Notifiable Disease Data Team and 122 Cities Mortality Data Team in the weekly *MMWR* are provisional, based on weekly reports to CDC by state health departments. Address all inquiries about the *MMWR* Series, including material to be considered for publication, to Editor, *MMWR* Series, Mailstop E-90, CDC, 1600 Clifton Rd., N.E., Atlanta, GA 30329-4027 or to mmwrq@cdc.gov.

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Prescription Opioids and Heroin

Introduction

Drug overdose deaths involving prescription opioid pain relievers have increased dramatically since 1999. Concerted federal and state efforts have been made to curb this epidemic. In 2011, the White House released an interagency strategy for Responding to America’s Prescription Drug Crisis (www.whitehouse.gov/sites/default/files/ondcp/issues-content/prescription-drugs/rx_abuse_plan.pdf). Enacting this strategy, federal agencies have worked with states to educate providers, pharmacists, patients, parents, and youth about the dangers of prescription drug abuse and the need for proper prescribing, dispensing, use, and disposal; to implement effective prescription drug monitoring programs; to facilitate proper medication disposal through prescription take-back initiatives; and to support aggressive enforcement to address doctor shopping and pill mills and support development of abuse-resistance formulations for opioid pain relievers.

Improvements have been seen in some regions of the country in the form of decreasing availability of prescription opioid drugs and a decline in overdose deaths in states with the most aggressive policies (Johnson et al., 2014). However, since 2007, overdose deaths related to heroin have started to increase. The Centers for Disease Control and Prevention counted 10,574 heroin overdose deaths in 2014, which represents more than a fivefold increase of the heroin death rate from 2002 to 2014 (CDC, 2015).

In an effort to combat the intertwined problems of prescription opioid misuse and heroin use, in March of 2015 the Secretary of Health and Human Services announced the Secretary’s Opioid Initiative (www.hhs.gov/news/press/2015pres/03/20150326a.html), which aims to reduce addiction and mortality related to opioid drug abuse by (HHS takes strong steps, 2015):

- reforming opioid prescribing practices
- expanding access to the overdose-reversal drug naloxone
- expanding access to medication-assisted treatment for opioid use disorder
The relationship between prescription opioid abuse and increases in heroin use in the United States is under scrutiny. These substances are all part of the same opioid drug category and overlap in important ways. Currently available research demonstrates:

- Prescription opioid use is a risk factor for heroin use.
- Heroin use is rare in prescription drug users.
- Prescription opioids and heroin have similar effects, different risk factors.
- A subset of people who abuse prescription opioids may progress to heroin use.
- Increased drug availability is associated with increased use and overdose.
- Heroin use is driven by its low cost and high availability.
- Emphasis is needed on both prevention and treatment.

**Prescription opioid use is a risk factor for heroin use**

Pooling data from 2002 to 2012, the incidence of heroin initiation was 19 times higher among those who reported prior nonmedical pain reliever use than among those who did not (0.39 vs. 0.02 percent) (Muhuri et al., 2013). A study of young, urban injection drug users interviewed in 2008 and 2009 found that 86 percent had used opioid pain relievers nonmedically prior to using heroin, and their initiation into nonmedical use was characterized by three main sources of opioids: family, friends, or personal prescriptions (Lankenau et al., 2012). This rate represents a shift from historical trends. Of people entering treatment for heroin addiction who began abusing opioids in the 1960s, more than 80 percent started with heroin. Of those who began abusing opioids in the 2000s, 75 percent reported that their first opioid was a prescription drug (Cicero et al., 2014). Examining national-level general population heroin data (including those in and not in treatment), nearly 80 percent of heroin users reported using prescription opioids prior to heroin (Jones, 2013; Muhuri et al., 2013).
Heroin use is rare in prescription drug users

While prescription opioid abuse is a growing risk factor for starting heroin use, only a small fraction of people who abuse pain relievers switch to heroin use. According to general population data from the National Survey on Drug Use and Health, less than 4 percent of people who had abused prescription opioids started using heroin within 5 years (Muhuri et al., 2013). This suggests that prescription opioid abuse is just one factor in the pathway to heroin. Furthermore, analyses suggest that those who transition to heroin use tend to be frequent users of multiple substances (polydrug users) (Jones et al., 2015). Additional analyses are needed to better characterize the population that abuses prescription opioids who transition to heroin use, including demographic criteria, what other drugs they use, and whether or not they are injection drug users.

Prescription opioids and heroin have similar effects, different risk factors

Heroin and prescription opioid pain relievers both belong to the opioid class of drugs, and their euphoric effects are produced by their binding with mu opioid receptors in the brain. Different opioid drugs have different effects that are determined by the way they are taken and by the timing and duration of their activity at mu opioid receptors.

People who began using heroin in the 1960s were predominantly young men from minority groups living in urban areas (82.8 percent; mean age at first opioid use, 16.5 years) whose first opioid of abuse was heroin (80 percent). The epidemic of prescription opioid abuse has been associated with a shifting of the demographic of opioid users toward a population that is somewhat older (mean age at first opioid use, 22.9 years), less minority, more rural/suburban, with few gender differences among those who were introduced to opioids through prescription drugs. Whites and nonwhites were equally represented in those initiating use prior to the 1980s, but nearly 90 percent of respondents who began use in the last decade were white (Cicero et al., 2014).
Because heroin is often injected, the upsurge in use also has implications for HIV, hepatitis C (HCV), and other injection-related illnesses. Recent studies suggest that having used opioid pain relievers before transitioning to heroin injection is a common trajectory for young injection drug users with HCV infection (Klevens et al., 2012). A study of new HCV infections in Massachusetts found that 95 percent of interview respondents used prescription opioids before initiating heroin (Church et al., 2010).

**A subset of people who abuse prescription opioids may progress to heroin use**

A recent study of heroin users in the Chicago metropolitan area identified three main paths to heroin addiction: prescription opioid abuse to heroin use, cocaine use to heroin use (to "come down"), and polydrug use (i.e., use of multiple substances) to heroin use. Polydrug use to heroin was the most common path in this study (Kane-Willis et al., n.d.). The estimated 4 percent subset of people who transition from prescription opioid abuse to heroin use (Muhuri et al., 2013) may be predisposed to polydrug use, and the transition may represent a natural progression for them. Examination of new HCV cases in young adults living in rural areas identified a population who reported transition from non-injection drug use to injecting opioid pain relievers before switching to injecting heroin or methamphetamine (Stanley et al., 2012). A study looking at a larger sample found that prescription opioid abuse preceded heroin use by an average of 2 years (Suryaprasad et al., 2014). Frequent prescription opioid users and those diagnosed with dependence or abuse of prescription opioids are more likely to switch to heroin; dependence on or abuse of prescription opioids has been associated with a 40-fold increased risk of dependence on or abuse of heroin (Jones et al., 2015).

**Increased drug availability is associated with increased use and overdose**

From 1991 to 2011, there was a near tripling of opioid prescriptions dispensed by U.S. pharmacies: from 76 million to 219 million prescriptions (IMS Health, 2014a; IMS Health, 2014b). In parallel with this increase, there was also a near tripling of opioid-related deaths over the same time period. Mexican heroin production increased from an estimated 8 metric tons in 2005 to 50 metric tons in 2009—more than a sixfold increase in just 4 years. Domination of the U.S. market by Mexican and Colombian heroin sources, along with technology transfer between these suppliers, has increased the availability of easily injectable, white powder heroin (National Drug Intelligence Center, 2011). In a recent survey of patients receiving treatment for opioid abuse, accessibility was one of the main factors identified in the decision to start using heroin (Cicero et al., 2014).
Heroin use is driven by its low cost and high availability

One main factor that contributes to the popularity of a drug is availability. One key to prevention is reducing exposure. While efforts to reduce the availability of prescription opioid analgesics have begun to show success, the supply of heroin has been increasing (see "Increased drug availability is associated with increased use and overdose" on page 4). Prescription opioids and heroin have similar chemical properties and physiological impacts; when administered by the same method (i.e., ingested or injected), there is no real difference for the user.

It is not clear whether the increased availability of heroin is causing the upsurge in use or if the increased accessibility of heroin has been caused by increased demand. A number of studies have suggested that people transitioning from abuse of prescription opioids to heroin cite that heroin is cheaper, more available, and provides a better high. Notably, the street price of heroin has been much lower in recent years than in past decades (Unick et al., 2014). In addition to these market forces, some have reported that the transition from opioid pills to heroin was eased by sniffing or smoking heroin before transitioning to injection (Mars et al., 2014). In a recent survey of people in treatment for opioid addiction, almost all—94 percent—said they chose to use heroin because prescription opioids were "far more expensive and harder to obtain" (Cicero et al., 2014).

Emphasis is needed on both prevention and treatment

With the increasing use of opioids, there has been a concomitant increase in the number of treatment admissions attributable to prescription opioids and heroin. The number of persons receiving substance use treatment for prescription opioids rose from 360,000 in 2002, representing 10.3 percent of the total treatment population, to 772,000 (18.6 percent) in 2014 (CBHSQ, 2015b). The number of persons receiving treatment for heroin increased from 277,000 in 2002 to 618,000 in 2014 (CBHSQ, 2015b). In addition, the number of heroin users in the United States jumped from about 404,000 in 2002 to 914,000 in 2014, and the number of those with heroin "dependence or abuse" more than doubled from 2002 to 2014, increasing from about 214,000 to 586,000 (CBHSQ, 2015a).

In addition to efforts to prevent initiation of abuse of prescription opioids and use of heroin, there is a significant need to identify and treat people who have already developed an addiction to these substances. The prescription drug monitoring programs are one means by which states are identifying individuals who are doctor shopping.
In addition, there are ongoing efforts to encourage health care practitioners to screen patients for potential drug abuse problems. However, identification is only the first step; it is critical to provide evidence-based treatments for these individuals. Treatment should include access to the medication-assisted treatment (MAT) options of methadone, buprenorphine, or extended-release naltrexone, which are effective for both prescription opioid and heroin addiction. Currently, far fewer people receive MAT than could potentially benefit from it. Nearly all U.S. states have higher rates of opioid abuse and dependence than their buprenorphine treatment capacity (Jones et al., 2015), and fewer than 1 million of the 2.5 million Americans who abused or were dependent on opioids in 2012 received MAT (Volkow et al., 2014). Removing barriers to MAT access and utilization is a top priority for the U.S. Department of Health and Human Services and is a key objective of the Secretary’s Opioid Initiative (www.hhs.gov/news/press/2015pres/03/20150326a.html) to combat opioid drug-related dependence and overdose.

References


Center for Behavioral Health Statistics and Quality (CBHSQ). Table 7.50A. 2014 National Survey on Drug Use and Health: Detailed Tables. Substance Abuse and Mental Health Services Administration, Rockville, MD; 2015.

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U.S. Drug Enforcement Administration (DEA) ARCOS. Data extracted October 8, 2015.


Where can I get further information about prescription opioids and heroin?

To learn more about prescription opioids and heroin, visit the NIDA website at [www.drugabuse.gov](http://www.drugabuse.gov) or contact DrugPubs Research Dissemination Center at 877-NIDA-NIH (877-643-2644) (TTY/TDD: 240-645-0228).

**NIDA Websites and Webpages**
- [www.drugabuse.gov](http://www.drugabuse.gov)
- [www.teens.drugabuse.gov](http://www.teens.drugabuse.gov)
- [www.easyread.drugabuse.gov](http://www.easyread.drugabuse.gov)
- [www.drugabuse.gov/drugs-abuse/opioids](http://www.drugabuse.gov/drugs-abuse/opioids)
- [www.hiv.drugabuse.gov](http://www.hiv.drugabuse.gov)
- [www.researchstudies.drugabuse.gov](http://www.researchstudies.drugabuse.gov)
- [www.irp.drugabuse.gov](http://www.irp.drugabuse.gov)

**For Physician Information**
- [www.drugabuse.gov/nidamed](http://www.drugabuse.gov/nidamed)

**Other Websites**
Information on prescription opioids and heroin is also available through:
- Substance Abuse and Mental Health Services Administration: [www.samhsa.gov](http://www.samhsa.gov)
- Drug Enforcement Administration: [www.dea.gov](http://www.dea.gov)
- Monitoring the Future: [www.monitoringthefuture.org](http://www.monitoringthefuture.org)

NIDA’s website includes:
- Information on drugs of abuse and related health consequences
- NIDA publications, news, and events
- Resources for health care professionals, educators, and patients and families
- Information on NIDA research studies and clinical trials
- Funding information (including program announcements and deadlines)
- International activities
- Links to related websites (access to websites of many other organizations in the field)
- Information in Spanish (en español)

Updated December 2015

R. Matthew Gladden, PhD1; Pedro Martinez, MPH1; Puja Seth, PhD1

In March and October 2015, the Drug Enforcement Administration (DEA) and CDC, respectively, issued nationwide alerts identifying illicitly manufactured fentanyl (IMF) as a threat to public health and safety (1,2). IMF is unlawfully produced fentanyl, obtained through

References

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850 National, Regional, State, and Selected Local Area Vaccination Coverage Among Adolescents Aged 13–17 Years — United States, 2015
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illicit drug markets, includes fentanyl analogs, and is commonly mixed with or sold as heroin (1,3,4). Starting in 2013, the production and distribution of IMF increased to unprecedented levels, fueled by increases in the global supply, processing, and distribution of fentanyl and fentanyl-precursor chemicals by criminal organizations (3). Fentanyl is a synthetic opioid 50–100 times more potent than morphine (2).* Multiple states have reported increases in fentanyl-involved overdose (poisoning) deaths (fentanyl deaths) (2). This report examined the number of drug products obtained by law enforcement that tested positive for fentanyl (fentanyl submissions) and synthetic opioid-involved deaths other than methadone (synthetic opioid deaths), which include fentanyl deaths and deaths involving other synthetic opioids (e.g., tramadol). Fentanyl deaths are not reported separately in national data. Analyses also were conducted on data from 27 states† with consistent death certificate reporting of the drugs involved in overdoses. Nationally, the number of fentanyl submissions and synthetic opioid deaths increased by 426% and 79%, respectively, during 2013–2014; among the 27 analyzed states, fentanyl submission increases were strongly correlated with increases in synthetic opioid deaths. Changes in fentanyl submissions and synthetic opioid deaths were not correlated with changes in fentanyl prescribing rates, and increases in fentanyl submissions and synthetic opioid deaths were primarily concentrated in eight states (high-burden states). Reports from six of the eight high-burden states indicated that fentanyl-involved overdose deaths were primarily driving increases in synthetic opioid deaths. Increases in synthetic opioid deaths among high-burden states disproportionately involved persons aged 15–44 years and males, a pattern consistent with previously documented IMF-involved deaths (5). These findings, combined with the approximate doubling in fentanyl submissions during 2014–2015 (from 5,343 to 13,882) (6), underscore the urgent need for a collaborative public health and law enforcement response.

Data were analyzed from four sources: 1) fentanyl submission data from the DEA National Forensic Laboratory Information System (NFLIS), which systematically collects drug identification results from drug cases submitted for analysis to forensic laboratories§; 2) synthetic opioid deaths, calculated using the National Vital Statistics System multiple cause-of-death mortality files¶; 3) synthetic opioid deaths, calculated using the National Vital Statistics System multiple cause-of-death mortality files¶; 4) data from seven states§§; and 5) data from the CDC’s Drug Intelligence System (DIS), a collection of drug intelligence information provided by law enforcement agencies.§§§


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US Department of Health and Human Services/Centers for Disease Control and Prevention

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Data were extracted July 1, 2016; additional information on NFLIS is available at http://www.deadiversion.usdoj.gov/nflis/.

Data were analyzed from four sources: 1) fentanyl submission data from the DEA National Forensic Laboratory Information System (NFLIS), which systematically collects drug identification results from drug cases submitted for analysis to forensic laboratories§§; 2) synthetic opioid deaths, calculated using the National Vital Statistics System multiple cause-of-death mortality files¶; 3) synthetic opioid deaths, calculated using the National Vital Statistics System multiple cause-of-death mortality files¶; 4) data from seven states§§§; and 5) data from the CDC’s Drug Intelligence System (DIS), a collection of drug intelligence information provided by law enforcement agencies.§§§


Available at http://www.deadiversion.usdoj.gov/nflis/.


Data were extracted July 1, 2016; additional information on NFLIS is available at http://www.deadiversion.usdoj.gov/nflis/.
3) national and state fentanyl prescription data that are estimated from IMS Health’s National Prescription Audit collecting 87% of retail prescriptions in the United States; and 4) medical examiner/coroner reports or death certificate data from states with a high burden of synthetic opioid deaths (i.e., a 1-year increase in synthetic opioid deaths exceeding two per 100,000 residents, or a 1-year increase of ≥100 synthetic opioid deaths during 2013–2014). Synthetic opioid deaths were identified using the following International Classification of Diseases, 10th Revision codes: 1) an underlying cause-of-death code of X40–44 (unintentional), X60–64 (suicide), X85 (homicide), or Y10–Y14 (undetermined intent) and 2) a multiple cause-of-death code of T40.4. In 2014, any information on the specific drug or drugs involved in a drug overdose were reported for approximately 80% of drug overdose deaths; this proportion varied over time and by state (7). State analyses were limited to 27 states meeting the following criteria: 1) >70% of drug overdose deaths reported at least one specific drug in 2013 and 2014; 2) the change in the percentage of overdose deaths reporting at least one specific drug from 2013 to 2014 was <10%;††; 3) ≥20 synthetic opioid deaths occurred during 2013 and 2014; and 4) fentanyl submissions were reported in 2013 and 2014.¶¶ These 27 states accounted for 75% of synthetic opioid deaths in the United States in 2014. Analyses compared changes in the crude rate of fentanyl submissions, fentanyl prescriptions, and synthetic opioid deaths during 2013–2014 using Pearson correlations. States were classified as high-burden if they experienced a 1-year increase in synthetic opioid deaths exceeding two per 100,000 residents or a 1-year increase of ≥100 synthetic opioid deaths during 2013–2014. Additional evidence from published state medical examiner/coroner or death certificate data was reviewed to understand whether increases in synthetic opioid deaths were being primarily driven by fentanyl deaths and not by other synthetic opioids. Demographic characteristics of synthetic opioid deaths for high-burden and low-burden states were described.

During 2013–2014, fentanyl submissions in the United States increased by 426%, from 1,015 in 2013 to 5,343 in 2014, and synthetic opioid deaths increased by 79%, from 3,105 in 2013 to 5,544 in 2014.¶¶ In contrast, fentanyl prescription rates remained relatively stable (Figure 1). Although changes in fentanyl submissions and synthetic opioid death rates from 2013–2014 among the 27 states were highly correlated (r = 0.95) (Figure 2), changes in state-level synthetic opioid deaths were not correlated with changes in fentanyl prescribing (data not shown). During 2013–2014, the synthetic opioid crude death rate in the eight high-burden states increased 174%, from 1.3 to 3.6 per 100,000, and the fentanyl submissions rate increased by 1,000% from 0.5 to 5.5 per 100,000 (Table). Six of the eight high-burden states reported increases in synthetic opioid death rates exceeding 2.0 per 100,000 population, and seven states reported increases in deaths of ≥100.*** The eight high-burden states were located in the Northeast (Massachusetts, Maine, and New Hampshire), Midwest (Ohio), and South (Florida, Kentucky, Maryland, and North Carolina). Six of the eight states published data on fentanyl deaths from 2013 and 2014.††† Combining results across the state reports, total fentanyl deaths during 2013–2014 increased by 1,008, from 392 (2013) to 1,400 (2014), and the increase in total fentanyl deaths was of nearly the same magnitude as the increase in 966 synthetic opioid deaths in these states (589 [2013], 1,555 [2014]). This finding indicates that increases in fentanyl deaths were driving the increases in synthetic opioid deaths in these six states. Among high-burden states, all demographic groups experienced substantial increases in synthetic opioid death rates. Increases of >200% occurred among males (227%); persons aged 15–24 years (347%), 25–34 years...
FIGURE 1. Trends in number of drug overdose deaths involving synthetic opioids other than methadone,* number of reported fentanyl submissions,† and rate of fentanyl prescriptions§ — United States, 2010–2014

* Synthetic opioid–involved (other than methadone) overdose deaths are deaths with an International Classification of Diseases, 10th Revision underlying cause–of–death of X40–44 (unintentional), X60–64 (suicide), X85 (homicide), or Y10–Y14 (undetermined intent) and a multiple cause–of–death of T40.4 (poisoning by narcotics and psychodysleptics [hallucinogens]: other synthetic narcotics).
† Drug products obtained by law enforcement that tested positive for fentanyl are referred to as fentanyl submissions. Reports were supplied by the Drug Enforcement Administration’s National Forensic Laboratory Information System and downloaded July 1, 2016.
§ National estimates supplied by IMS National Prescription Audit and include short and long-acting fentanyl prescriptions.

Deaths in high-burden states, highlights the need to understand the factors driving this increase.

IMF production and distribution began increasing in 2013 and has grown to unprecedented levels in 2016 (3). For example, there were approximately eight times as many fentanyl submissions in 2015 as there were in 2006 during the last multistate outbreak involving IMF (3). DEA has not reported a sharp increase in pharmaceutical fentanyl being diverted from legitimate medical use to illegal uses (4). Given the strong correlation between increases in fentanyl submissions (primarily driven by IMF) (3,4) and increases in synthetic opioid deaths (primarily fentanyl deaths), and uncorrelated stable fentanyl prescription rates, it is hypothesized that IMF is driving the increases in fentanyl deaths. Findings from DEA (3,4), state, and CDC investigations (5) documenting the role of IMF in the observed increases in fentanyl deaths further support this hypothesis. The demographics of synthetic opioid deaths are rapidly changing and are consistent with the changes in demographics of persons using heroin, in particular, increasing use among non-Hispanic white men aged 25–44 years (9).

Historically, the heroin market in the United States has been divided along the Mississippi River, with Mexican black tar and brown powder heroin being sold in the west and white powder heroin being sold in the east. IMF is most commonly mixed with or sold as white powder heroin (4). The concentration of high-burden states east of the Mississippi River is consistent with reports of IMF distribution in white powder heroin markets (3,4).

An urgent, collaborative public health and law enforcement response is needed to address the increasing problem of IMF and fentanyl deaths. Recently released fentanyl submissions data indicate that 15 states experienced >100 fentanyl submissions in 2015. This is up from 11 states in 2014 (6). The national increase of 8,539 in fentanyl submissions from 2014 (5,343) to 2015 (13,882) (6) exceeded the increase of 4,328 from 2013 to 2014. This finding coupled with the strong correlation between fentanyl submissions and fentanyl-involved overdose deaths observed in Ohio and Florida (5) and supported by this report likely indicate the problem of IMF is rapidly expanding. Recent (2016) seizures of large numbers of counterfeit pills containing IMF indicate that states where persons commonly use diverted prescription pills, including opioid pain relievers, might begin to experience increases in fentanyl deaths (3) because many counterfeit pills are

Discussion

In the 27 states meeting analysis criteria, synthetic opioid deaths sharply increased in the eight high-burden states, and complementary data suggest this increase can be attributed to fentanyl. Six of the eight high-burden states reported substantial increases in fentanyl deaths during 2013–2014, based on medical examiner/coroner data or literal text searches of death certificates. The high potency of fentanyl and the possibility of rapid death after fentanyl administration (8), coupled with the extremely sharp 1-year increase in fentanyl

(248%), and 35–44 (230%) years; Hispanics (290%), and persons living in large fringe metro areas (230%). The highest rates of synthetic opioid deaths in 2014 were among males (5.1 per 100,000); non-Hispanics whites (4.6 per 100,000); and persons aged 25–34 years (8.3 per 100,000), 35–44 years (7.4 per 100,000), and 45–54 years (5.7 per 100,000) (Table).
deceptively sold as and hard to distinguish from diverted opioid pain relievers. Finally, the approximate tripling of heroin-involved overdose deaths since 2010 highlights the need for interventions targeting the illicit opioid market.

The findings in this report are subject to at least four limitations. First, national vital statistics data only report synthetic opioid deaths. A review of state-level reports in six of eight high-burden states indicated that the increase in fentanyl deaths was the primary factor driving increases in synthetic opioid deaths during 2013–2014. Because synthetic opioid deaths include deaths involving synthetic opioids besides fentanyl, the absolute number of synthetic opioid deaths occurring in a year such as 2014 should not be considered a proxy for the number of fentanyl deaths in a year. Second, law enforcement drug submissions might vary over time and geographically because of differences or changes in law enforcement testing practices and drug enforcement activity, which might underestimate or overestimate the number of fentanyl submissions in certain states. Third, findings and implications are restricted to 27 states. Finally, testing for fentanyl deaths might vary across states because toxicologic testing protocols for drug overdoses vary across states and local jurisdictions.

The Secretary of Health and Human Services has launched an initiative to reduce opioid misuse, abuse, and overdose by expanding medication-assisted treatment, increasing the availability and use of naloxone, and promoting safer opioid prescribing (I0). Efforts should focus on 1) improving timeliness

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http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6450a3.htm.
TABLE. Number and crude rates per 100,000 persons of synthetic opioid deaths (overdose deaths involving synthetic opioids other than methadone), * by sex, age group, † race and Hispanic origin, § reported fentanyl submissions, ¶ and 2013 urbanization** — eight high-burden states†† and 19 low-burden states, §§ 2013 and 2014

<table>
<thead>
<tr>
<th>Decedent characteristic</th>
<th>High-burden states (n = 8)</th>
<th>Low-burden states (n = 19)</th>
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<tr>
<td>All</td>
<td>803 1.32</td>
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<tr>
<td>Sex</td>
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<td>Female</td>
<td>342 1.1</td>
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<td>Male</td>
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<td>Age groups (yrs)</td>
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<td>15–24</td>
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<td>185 2.38</td>
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<td>35–44</td>
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<td>560 7.36</td>
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<tr>
<td>45–54</td>
<td>242 2.8</td>
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<td>55–64</td>
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<tr>
<td>≥65</td>
<td>21 0.22</td>
<td>48 0.48</td>
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<tr>
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<td>1,925 4.62</td>
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<td>172 1.79</td>
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<td>Other, non-Hispanic</td>
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<tr>
<td>Hispanic</td>
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</tr>
<tr>
<td>Reported fentanyl</td>
<td>293 0.48</td>
<td>3,340 5.46</td>
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</table>


* Synthetic opioid-involved (other than methadone) overdose deaths are deaths with an International Classification of Diseases, 10th Revision underlying cause-of-death of X40–44 (unintentional), X60–64 (suicide), X85 (homicide), or Y10–Y14 (undetermined intent) and a multiple cause-of-death of T40.4.
† Synthetic opioid-involved overdose deaths involving persons aged ≤14 years are not reported because cells have nine or fewer deaths. Also, a small number of synthetic opioid-involved overdose deaths do not report age of the decedent.
§ Data for Hispanic origin should be interpreted with caution; studies comparing Hispanic origin on death certificates and on census surveys have indicated inconsistent reporting on Hispanic ethnicity. Numbers might not sum to the total because the ethnicity and race of some synthetic opioid-involved overdose deaths are not known.
¶ Drug products obtained by law enforcement that tested positive for fentanyl are referred to as fentanyl submissions. Reports were supplied by the Drug Enforcement Administration’s National Forensic Laboratory Information System and downloaded July 1, 2016.
** Categories of 2013 NCHS Urban-Rural Classification Scheme for Counties (http://www.cdc.gov/nchs/data/series/sr_02/sr02_166.pdf): Large central metro: Counties in metropolitan statistical areas (MSAs) of ≥1 million population that 1) contain the entire population of largest principal city of the MSA, or 2) have their entire population contained in the largest principal city of the MSA, or 3) contain at least 250,000 inhabitants of any principal city of the MSA; Large fringe metro: Counties in MSAs of ≥1 million population that did not qualify as large central metro counties; Medium metro: Counties in MSAs of populations of 250,000–999,999; Small metro: Counties in MSAs of populations less than 250,000; Micropolitan (nonmetropolitan counties); counties in micropolitan statistical areas; Noncore (nonmetropolitan counties): nonmetropolitan counties that did not qualify as micropolitan.
†† High-burden states (n = 8) include Florida, Kentucky, Maine, Maryland, Massachusetts, New Hampshire, North Carolina, and Ohio.
¶¶ Statistically significant at p<0.05 level. Gamma tests were used if cell count was less than 100 in 2013 or 2014, and z-tests were used if cell counts were ≥100 in both 2013 and 2014.
*** Cells with nine or fewer deaths are not reported and rates based on <20 deaths are not considered reliable and not reported. When rate for a year is suppressed, change in rate is also not reported.
Summary
What is already known about this topic?
In 2015, the Drug Enforcement Administration and CDC issued nationwide alerts identifying illicitly manufactured fentanyl (IMF) as a threat. Beginning in 2013, the distribution of IMF increased to unprecedented levels. Individual states have reported increases in fentanyl-involved overdose deaths (fentanyl deaths).

What is added by this report?
During 2013–2014, the number of drug products obtained by law enforcement that tested positive for fentanyl (fentanyl submissions) increased by 426%, and synthetic opioid–involved overdose deaths (excluding methadone) increased by 79% in the United States. Changes in synthetic opioid–involved overdose deaths among 27 states were highly correlated with fentanyl submissions but not correlated with fentanyl prescribing. Eight high-burden states were identified, and complementary data indicate increases in these states are primarily attributable to fentanyl, supporting the argument that IMF is driving increases in fentanyl deaths.

What are the implications for public health practice?
An urgent, collaborative public health and law enforcement response is needed, including 1) improving timeliness of opioid surveillance to facilitate faster identification and response to spikes in fentanyl overdoses; 2) expanding testing for fentanyl and fentanyl analogues in high-burden states; 3) expanding evidence-based harm reduction and naloxone access; 4) implementing programs that increase linkage and access to medication-assisted treatment; and 5) increasing collaboration between public health and public safety; and 6) planning rapid response in high-burden states and states beginning to experience increases in fentanyl submissions or deaths.

Acknowledgments
Tamara Haegerich, PhD, Nina Shah, MS, Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control, CDC.

References
Exposure to opioids during pregnancy can lead to adverse infant outcomes, including neonatal abstinence syndrome (1) and birth defects (2). Ascertaining opioid prescriptions for women who become pregnant or have no indication of contraceptive use is important to determine the number of women who are at potential risk for adverse fetal outcomes. The New York State (NYS) Department of Health (DOH) analyzed data for women aged 15–44 years (i.e., reproductive-aged women) enrolled in Medicaid to examine opioid drug prescriptions during 2008–2013. On the basis of Medicaid drug claims for any drug with an opioid ingredient, prescriptions were identified for the enrolled population of reproductive-aged women and for three subgroups: women whose diagnosis, procedure, and drug codes indicated contraceptive use or infertility; women who were not using contraceptives and not infertile; and women who had had a live birth during the reporting year. During 2008–2013, among all women of reproductive age, 20.0% received a prescription for a drug with an opioid component; the proportion was highest (27.3%) among women with an indication of contraceptive use or infertility, intermediate (17.3%) among women who had no indication of contraceptive use, and lowest (9.5%) among women who had had a live birth. Although New York’s proportion of opioid prescriptions among female Medicaid recipients who had a live birth is lower than a recent U.S. estimate (3), these results suggest nearly one in 10 women in this group may have been exposed to opioids in the prenatal period.

To understand patterns of prescribing opioid medications for women of reproductive age, NYS DOH examined Medicaid fee-for-service and managed care data during 2008–2013 for females aged 15–44 years who were continuously enrolled in Medicaid during each reporting year. NYS DOH used a list of medications derived from the NYS Medicaid formulary with First Data Bank hierarchical ingredient codes indicating opioids, and defined opioid prescription as any outpatient claim for a drug that contained an opioid ingredient for any woman during each reporting year (4). Live births were identified based on an International Classification of Diseases, Ninth Revision (ICD-9) primary diagnosis code indicating live birth (641.01–676.64, V27) and a principal procedure code indicating live birth (vaginal and cesarean delivery Current Procedural Terminology codes 59400, 59409, 59410, 59510, 59514, 59515, 59610, 59612, 59614, 59620, and 59622; ICD-9 procedure codes 73.51, 73.59, 74.0, 74.1, and 72.0–72.7) within 2 days of the diagnosis code.

To determine the prenatal period, Medicaid records for a 1-year cohort of women were matched with vital statistics birth records. Among enrolled women who had a live birth, the mean gestational age in days for each pregancy-related ICD-9 primary diagnosis code was calculated and used to compute the average prenatal period. Using this approach, the prenatal period was defined as the 280 days preceding the date of a live birth for women with an indication of “late” pregnancy (ICD-9 code 645), 252 days for women with an indication of “multiple gestation” (ICD-9 code 651), or “antepartum hemorrhage” (ICD-9 code 641); as 238 days for women with an indication of “preterm labor” (ICD-9 code 644); and 270 days for all other live births (ICD-9 codes 650, 652, 654–657, 659, 660–666, or 669). Prescription of an opioid was ascertained during the prenatal period for women with an ICD-9 and Current Procedural Terminology code indicating a live birth, and for the entire reporting period for all other women of reproductive age. Women were identified as infertile using an approach similar to the Centers for Medicare & Medicaid Services developmental measure for pre- and interconception health (5). This approach uses diagnosis codes as well as procedure codes indicating hysterectomy, bilateral oophorectomy, or premature menopause occurring in the reporting year to identify women who cannot become pregnant. Contraceptive use during the reporting year was ascertained using diagnosis, procedure, and drug codes to identify female sterilization, or use of an intrauterine device, hormonal implant, injectable contraception, oral contraception, birth control patch, vaginal ring, or diaphragm. Results are reported for all women enrolled in Medicaid for whom opioid drugs were prescribed and for three subgroups: women with an indication of contraceptive use or infertility; women with no indication of contraceptive use; and, during pregnancy, women who had a live birth during 2008–2013. The percentage of overall prescribing does not include opioids prescribed to women before pregnancy, on the date of delivery, or after pregnancy for women who had a live birth.

During 2008–2013, the average number of women aged 15–44 years and continuously enrolled in Medicaid was 800,908; the number ranged from 675,717 in 2008 to 903,721 in 2013 (Table). The average proportion of women...
of reproductive age who received prescriptions for opioids during 2008–2013 was 20.0%, ranging from a low of 18.7% in 2008 to a high of 20.9% in 2011. The average proportion of opioid prescriptions for women with an indication of contraceptive use was 27.3%, with a range of 25.8% in 2008 to 28.2% for 2012. The average proportion of opioid prescriptions for women with no indication of contraceptive use was 17.3%, with a range of 18.1% in 2011 to 16.0% in 2013. The average proportion of prenatal opioid prescriptions for women who had a live birth was 9.5%, ranging from 8.8% in 2008 to 10.0% in 2010 and 2011.

Discussion

During 2008–2013, an average of 20.0% of reproductive-aged women enrolled in Medicaid in New York (average total = 800,908) received a prescription for opioids at least one time. Previous studies have examined opioid prescriptions among women of reproductive age enrolled in Medicaid, and women enrolled in Medicaid experiencing a live birth (3,4). During 2008–2012, an estimated 39.4% of reproductive-aged women enrolled in Medicaid in a selection of U.S. states received opioid prescriptions (4), a higher proportion than New York’s overall proportion of 20.0% during a similar period. Because data used for the U.S. results did not allow a geographic breakdown of prescribing, a direct comparison with the findings from New York is not possible. A study that examined opioid prescriptions in Medicaid-enrolled women who had a live birth during 2000–2007 reported that in the United States overall, 21.6% of these women had received opioid prescriptions, including 9.3% in the Northeast (3) and 9.6% in New York (R. Desai, personal communication, June 9, 2015), proportions which are similar to New York’s 9.5% during 2008–2013. Regional differences in opioid prescriptions for males and females in the Medicaid program have also been reported for the fee-for-service population during 1996–2002; New York was in the lowest opioid prescription quintile (6). Geographic variation in opioid prescribing has also been reported for the U.S. population (males and females); in 2008, the proportion of residents receiving opioid prescriptions in New York was low compared with other states (7).

New York has a history of prescription monitoring, beginning in 1972, with a program to regulate Schedule II controlled substances. In 2012, monitoring was enhanced by implementation of the Internet System for Tracking Over-Prescribing, or I-STOP, prescription monitoring program for Schedule II, III and IV controlled substances. These programs, adopted in response to concerns about the abuse and diversion of controlled substances, might contribute to the lower proportion of opioid prescribing in New York compared with opioid prescribing in most other states and the United States overall.

The findings in this report are subject to at least four limitations. First, ascertainment of opioid prescriptions was based on medications dispensed in the outpatient setting, and it is not known whether women took the prescribed medicine. Second, women who paid for drugs containing opioids without using Medicaid and women who received opioids while using Medicaid services in an inpatient or emergency department setting were not identified. Third, women with no indication of contraceptive use in this analysis might be using nonprescribed contraceptive methods (e.g., condoms) or might not have a male sexual partner or be sexually active; therefore, the number of women who might have had a pregnancy at risk for opioid exposure is smaller than what is presented. Finally, so that New York results could be compared with recent U.S. results (4), the opioid prescription experience of women of reproductive age was restricted to recipients continuously

### TABLE. Percentage of Medicaid-enrolled women of reproductive age (15–44 years) who were prescribed opioids, by contraception use and pregnancy status — New York, 2008–2013

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>All women, continuous Medicaid enrollment</td>
<td>675,717</td>
<td>742,067</td>
<td>795,551</td>
<td>822,356</td>
<td>866,035</td>
<td>903,721</td>
<td>800,908</td>
</tr>
<tr>
<td>No. opioid prescriptions</td>
<td>126,119</td>
<td>146,898</td>
<td>162,536</td>
<td>172,070</td>
<td>179,393</td>
<td>173,219</td>
<td>160,039</td>
</tr>
<tr>
<td>% opioid prescriptions</td>
<td>18.7</td>
<td>19.8</td>
<td>20.4</td>
<td>20.9</td>
<td>20.7</td>
<td>20.7</td>
<td>20.0</td>
</tr>
<tr>
<td>Women using contraception/infertile</td>
<td>185,960</td>
<td>227,102</td>
<td>261,767</td>
<td>285,089</td>
<td>300,690</td>
<td>319,488</td>
<td>263,349</td>
</tr>
<tr>
<td>No. opioid prescriptions</td>
<td>47,888</td>
<td>61,044</td>
<td>72,586</td>
<td>80,230</td>
<td>84,787</td>
<td>84,493</td>
<td>71,832</td>
</tr>
<tr>
<td>% opioid prescriptions</td>
<td>25.8</td>
<td>26.9</td>
<td>27.7</td>
<td>28.1</td>
<td>28.2</td>
<td>26.4</td>
<td>27.3</td>
</tr>
<tr>
<td>Women not using contraception/fertile</td>
<td>433,429</td>
<td>453,653</td>
<td>469,962</td>
<td>472,443</td>
<td>498,410</td>
<td>513,191</td>
<td>473,515</td>
</tr>
<tr>
<td>No. opioid prescriptions</td>
<td>73,264</td>
<td>79,962</td>
<td>83,545</td>
<td>85,363</td>
<td>88,360</td>
<td>82,255</td>
<td>82,125</td>
</tr>
<tr>
<td>% opioid prescriptions</td>
<td>16.9</td>
<td>17.6</td>
<td>17.8</td>
<td>18.1</td>
<td>17.7</td>
<td>16.0</td>
<td>17.3</td>
</tr>
<tr>
<td>Women with a live birth in the reporting year</td>
<td>56,328</td>
<td>61,312</td>
<td>63,822</td>
<td>64,824</td>
<td>66,935</td>
<td>71,012</td>
<td>64,044</td>
</tr>
<tr>
<td>No. prenatal opioid use</td>
<td>4,967</td>
<td>5,892</td>
<td>6,405</td>
<td>6,477</td>
<td>6,285</td>
<td>6,471</td>
<td>6,083</td>
</tr>
<tr>
<td>% prenatal opioid prescriptions</td>
<td>8.8</td>
<td>9.6</td>
<td>10.0</td>
<td>10.0</td>
<td>9.4</td>
<td>9.1</td>
<td>9.5</td>
</tr>
</tbody>
</table>

* Average for all 6 years.
† Does not include opioid prescriptions before pregnancy, on the day of delivery, or after pregnancy for women with a live birth.
Summary

What is already known about this topic?
Opioid exposure during pregnancy can cause neonatal abstinence syndrome and has been associated with the occurrence of birth defects.

What is added by this report?
During 2008–2013, approximately 20% of women of reproductive age (15–44 years) continuously enrolled in New York’s Medicaid program filled a prescription for an opioid pain medication from an outpatient setting. The proportion of women who received opioid prescriptions was lowest during the prenatal period for women who had a live birth (9.5%), intermediate for women with no indication of contraceptive use or infertility (17%), and highest for women with an indication of contraceptive use or infertility (27%).

What are the implications for public health practice?
Pregnancy status, sexual activity, and contraceptive use should be ascertained by providers before prescribing opioid pain medications; for women with chronic pain, recommendations from CDC’s opioid prescribing guideline should be followed. For women with other pain conditions who are pregnant or who are not using contraceptives, adherence to acute care setting, dental practice, and other clinical practice guidelines facilitated through clinical quality improvement strategies might result in increased prescribing and use of safer pain medications or nonpharmacologic treatments.

or might become pregnant to use other effective nonopioid pharmacologic or nonpharmacologic treatments to reduce the risk for adverse pregnancy outcomes. Fewer than 6,500 women per year in this study population received prescriptions for opioids during pregnancy. However, further study is required to determine the reason for prescribing opioids rather than other pain medication, and whether, for women with chronic pain, the prescribed dose and duration are consistent with CDC’s opioid prescribing guideline (8) or, for women with other pain presentations, whether other prescribing recommendations are being followed. Additional analyses of opioid prescriptions should also include comparisons of all Medicaid-eligible women with those with continuous enrollment.

1Division of Information and Statistics, Office of Quality and Patient Safety, New York State Department of Health; 2Office of Quality and Patient Safety, New York State Department of Health.

For chronic pain—United States, 2016. MMWR Recomm Rep 2016;65(No. RR-1). http://dx.doi.org/10.15585/mmwr.rr6501e1

References
Some medications have psychoactive (mind-altering) properties and, because of that, are sometimes abused—that is, taken for reasons or in ways or amounts not intended by a doctor, or taken by someone other than the person for whom they are prescribed. In fact, prescription and over-the-counter (OTC) drugs are, after marijuana (and alcohol), the most commonly abused substances by Americans 14 and older.

The classes of prescription drugs most commonly abused are: opioid pain relievers, such as Vicodin® or Oxycontin®; stimulants for treating Attention Deficit Hyperactivity Disorder (ADHD), such as Adderall®, Concerta®, or Ritalin®; and central nervous system (CNS) depressants for relieving anxiety, such as Valium® or Xanax®. The most commonly abused OTC drugs are cough and cold remedies containing dextromethorphan.

People often think that prescription and OTC drugs are safer than illicit drugs. But they can be as addictive and dangerous and put users at risk for other adverse health effects, including overdose—especially when taken along with other drugs or alcohol.

Before prescribing drugs, a health care provider considers a patient’s health conditions, current and prior drug use, and other medicines to assess the risks and benefits for a patient.

How Are Prescription Drugs Abused?

Prescription and OTC drugs may be abused in one or more of the following ways:
Most teenagers who abuse prescription drugs are given them for free by a friend or relative.

Taking a medication that has been prescribed for somebody else. Unaware of the dangers of sharing medications, people often unknowingly contribute to this form of abuse by sharing their unused pain relievers with their family members.

Taking a drug in a higher quantity or in another manner than prescribed. Most prescription drugs are dispensed orally in tablets, but abusers sometimes crush the tablets and snort or inject the powder. This hastens the entry of the drug into the bloodstream and the brain and amplifies its effects.

Taking a drug for another purpose than prescribed. All of the drug types mentioned can produce pleasurable effects at sufficient quantities, so taking them for the purpose of getting high is one of the main reasons people abuse them.

ADHD drugs like Adderall® are also often abused by students seeking to improve their academic performance. However, although they may boost alertness, there is little evidence they improve cognitive functioning for those without a medical condition.

How Do Prescription and OTC Drugs Affect the Brain?

Taken as intended, prescription and OTC drugs safely treat specific mental or physical symptoms. But when taken in different quantities or when such symptoms aren't present, they may affect the brain in ways very similar to illicit drugs.

For example, stimulants such as Ritalin® achieve their effects by acting on the same neurotransmitter systems as cocaine. Opioid pain relievers such as OxyContin® attach to the same cell receptors targeted by illegal opioids like heroin. Prescription depressants produce sedating or calming effects in the same manner as the club drugs GHB and Rohypnol®. And when taken in very high doses, dextromethorphan acts on the same cell receptors as PCP or ketamine, producing similar out-of-body experiences.

When abused, all of these classes of drugs directly or indirectly cause a pleasurable increase in the amount of dopamine in the brain's reward pathway. Repeatedly seeking to experience that feeling can lead to addiction.

What Are the Other Health Effects of Prescription and OTC Drugs?

Opioids can produce drowsiness, cause constipation, and—depending upon the amount taken—depress breathing. The latter effect makes opioids particularly dangerous, especially when they are snorted or injected or combined with other drugs or alcohol.
More people die from overdoses of prescription opioids than from all other drugs combined, including heroin and cocaine (see "The Prescription Opioid Overdose Epidemic").

Stimulants can have strong effects on the cardiovascular system. Taking high doses of a stimulant can dangerously raise body temperature and cause irregular heartbeat or even heart failure or seizures. Also, taking some stimulants in high doses or repeatedly can lead to hostility or feelings of paranoia.

CNS depressants slow down brain activity and can cause sleepiness and loss of coordination. Continued use can lead to physical dependence and withdrawal symptoms if discontinuing use.

**Opioids and Brain Damage**
While the relationship between opioid overdose and depressed respiration (slowed breathing) has been confirmed, researchers are also studying the long-term effects on brain function. Depressed respiration can affect the amount of oxygen that reaches the brain, a condition called hypoxia. Hypoxia can have short- and long-term psychological and neurological effects, including coma and permanent brain damage.

Researchers are also investigating the long-term effects of opioid addiction on the brain. Studies have shown some deterioration of the brain’s white matter due to heroin use, which may affect decision-making abilities, the ability to regulate behavior, and responses to stressful situations.

Dextromethorphan can cause impaired motor function, numbness, nausea or vomiting, and increased heart rate and blood pressure. On rare occasions, hypoxic brain damage—caused by severe respiratory depression and a lack of oxygen to the brain—has occurred due to the combination of dextromethorphan with decongestants often found in the medication.

All of these drugs have the potential for addiction, and this risk is amplified when they are abused. Also, as with other drugs, abuse of prescription and OTC drugs can alter a person’s judgment and decision making, leading to dangerous behaviors such as unsafe sex and drugged driving.
Prescription Opioid Abuse: A First Step to Heroin Use?

Prescription opioid pain medications such as Oxycontin® and Vicodin® can have effects similar to heroin when taken in doses or in ways other than prescribed, and research now suggests that abuse of these drugs may actually open the door to heroin abuse.

Nearly half of young people who inject heroin surveyed in three recent studies reported abusing prescription opioids before starting to use heroin. Some individuals reported taking up heroin because it is cheaper and easier to obtain than prescription opioids.

Many of these young people also report that crushing prescription opioid pills to snort or inject the powder provided their initiation into these methods of drug administration.

Learn More

For more information on prescription and OTC drugs, visit:

www.drugabuse.gov/publications/research-reports/prescription-drugs

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Updated November 2015

References

1 These are proprietary names of particular drug products. Generic versions may also exist.
Treatment
Medical Professional Opiate Prevention 2017: Crisis & Community Resources

Opiate Hotline: 330-454-HELP (4357) – Community information, education, support and connection to services anytime, day or night.

If your patient is in crisis ...

- Call 330-452-6000, the Stark County Crisis Hotline anytime
- Text 4hope to 741 741, the Crisis Text Line anytime
- Call 9-1-1 if emergency services are needed. If requesting law enforcement, you can ask for a CIT-trained officer
- Call the Domestic Violence Help Line anytime at 330-453-SAFE (7233)
- Trevor Lifeline for LGBTQ youth 1-866-488-7386
- Military & Veterans Crisis Line 1-800-273-8255, press 1 anytime
- Military & Veterans Crisis Text Line 838255 to get help now

If your patient needs detoxification services ...

If someone is ready to engage in alcohol and/or drug (AoD) treatment services, they must first be detoxed from the substance(s) of use. Some substances, like alcohol and benzodiazepines, can be deadly to detox from, and require medical monitoring for the individual’s safety. After detoxification, the individual can then be linked with treatment services. Detox services are available from StarkMHAR’s Care Network:

- Contact Crisis Intervention and Recovery Center by dialing the Crisis Hotline at 330-452-6000
- Contact Quest Recovery & Prevention Services - Regional Center for Opiate Recovery by dialing 330-837-9411.

At the Crisis Center (CIRC): OAC 3793:2-1-08 Treatment services (Y): Sub-acute detoxification refers to detoxification services provided with twenty-four-hour medical monitoring. Services are of brief duration and linkage to other formal and informal services shall be made. Sub-acute detoxification may be provided in a hospital setting as a step-down service from acute detoxification, or may be provided in a free-standing setting with medical monitoring. This service shall be supervised by a physician, under a defined set of policies and procedures, who is licensed by the state of Ohio medical board.

At ReCOR: OAC 3793:2-1-08 Treatment services (X): Ambulatory detoxification services means face-to-face interactions with an individual who is suffering mild to moderate symptoms of withdrawal, for the purpose of alcohol and/or drug detoxification. This service shall be supervised by a physician, under a defined set of policies and procedures, who is licensed by the state of Ohio medical board. Ambulatory detoxification services shall be provided by an outpatient program that is certified by the department of alcohol and drug addiction services. Department certified halfway house and residential treatment programs that want to provide ambulatory detoxification services need not obtain outpatient certification from the department.


If your patient does not have insurance ...
Stark County residents can access behavioral health services regardless of their ability to pay through the Stark County Mental Health & Addiction Recovery (StarkMHAR) Care Network. StarkMHAR funded service providers accept various insurance programs, Medicare and Medicaid. Stark residents that are not covered by one of those options can receive services. Their ability to pay for those services will be determined by their income and could be fully subsidized by StarkMHAR. View the online StarkMHAR.org/CareNetwork »

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Opiate Epidemic Community & Family Resources

Everyone can take action

Be a responsible consumer  Talk with your doctor or pharmacist about why you might need the pain medication prescribed. Use the prescription exactly as directed. Don’t share your pills with others and above all, get rid of your medication properly. Do not throw them out in the trash or flush them. Take advantage of free, anonymous drug drop off locations throughout Stark County.

Drug drop box locations  Don’t risk your unwanted prescriptions getting into an illicit supply pipeline. Drug Free Stark County has collaborated with law enforcement and community partners throughout Stark County to establish 17 permanent drug drop-off locations. No questions asked. Find a drop box near you at StarkMHAR.org/DrugCollection »

Opiate Prevention Toolkit  Designed for students, educators and for parents, Stark County Mental Health & Addiction Recovery partners with Drug Free Stark County and the Stark County Educational Service Center to make this online resource tool accessible. Access prevention tools at StarkMHAR.org/OpiateToolkit »

Get a Naloxone overdose kit  Naloxone (also known as Narcan®) is a medication that can reverse an overdose caused by an opioid drug (heroin or prescription pain medications). When administered during an overdose, Naloxone blocks the effects of opioids on the brain and quickly restores breathing. Naloxone kits are distributed free of charge at area providers. If you know a loved one struggling with opiate addiction, please get an overdose kit. Find out where at StarkMHAR.org/OverdoseKit »

Teach prevention early

Be On the Look Out (BOLO) is a prevention program developed by Drug Free Stark County aimed at parents and caregivers of middle grade and high school students. More at StarkMHAR.org/BOLO »

Ohio Governor John Kasich’s Stark Talking prevention program helps parents and caregivers begin conversations about drugs and consequences. Learn more at StarkTalking.Ohio.gov »

Family resources

Get a Naloxone Overdose Kit  Naloxone (also known as Narcan®) is a medication that can reverse an overdose caused by an opioid drug (heroin or prescription pain medications). When administered during an overdose, Naloxone blocks the effects of opioids on the brain and quickly restores breathing.
Naloxone kits are distributed free of charge at area providers. Find out where to get a kit at StarkMHAR.org/OverdoseKit »

Addiction is a brain disease If your loved one has an opiate addiction, learn what to do. This website was prepared by family members for family members, StarkHeroinEpidemic.org »

SOLACE of Stark County Surviving Our Loss And Continuing Everyday is a support group for those who have lost someone to drug abuse, suicide, violence or incarceration. The group meets the 3rd Monday of each month at Stark County Park's Exploration Gateway at 5712 12th Street NW in Canton from 6:30-8:00 p.m. Contact Dale Batdorff at 330-323-7605. Also on Facebook at Solace of Stark County »

OhioCAN With leadership across the state and in Stark County, OhioCAN's mission is to bring the family voice to addiction and recovery, and empower families to create an atmosphere of open exchange without shame or stigma. Reach OhioCAN online at ChangeAddictionNow.org »

F.A.T.H.E.R.S. Motorcycle Poker Run An annual event, the motorcycle run is led by Families Against The Heroin Epidemic Rally in Stark. Find out more online at FathersRunStark.com »

Warriors Project A faith-based support system for those on the road to recovery and their families, Warriors Project can be reached online at WarriorsProjectOnline.com »

Get involved

Drug Free Stark County A partnership of law enforcement, schools, faith-based organizations, health care and treatment providers, business, parents and youth, Drug Free Stark County aims to increase public awareness of the harmful effects of substance abuse. Learn more »

Opiate Task Force of Stark County Designed to bring people and resources together from all sectors of the community to develop and pursue goals and strategies to address the public health concern of opiate use in Stark County. Join law enforcement, medical professionals, treatment providers, criminal justice, community leaders and parents. Learn more »

Stark County Suicide Prevention Coalition is a partnership of representatives from more than 20 local community organizations working together to save lives. Active members include representatives from community advocacy, behavioral health organizations, survivors of suicide loss, social service organizations, human service agencies, government organizations, medical facilities and educational institutions. Individuals or organizations are welcome to join. Find out more »
NOTE: This fact sheet discusses research findings on effective treatment approaches for drug abuse and addiction. If you're seeking treatment, you can call the Substance Abuse and Mental Health Services Administration's (SAMHSA's) National Helpline at 1-800-662-HELP (1-800-662-4357) or go to www.findtreatment.samhsa.gov for information on hotlines, counseling services, or treatment options in your state.

What is drug addiction?

Drug addiction is a chronic disease characterized by compulsive, or uncontrollable, drug seeking and use despite harmful consequences and changes in the brain, which can be long lasting. These changes in the brain can lead to the harmful behaviors seen in people who use drugs. Drug addiction is also a relapsing disease. Relapse is the return to drug use after an attempt to stop.

The path to drug addiction begins with the voluntary act of taking drugs. But over time, a person's ability to choose not to do so becomes compromised. Seeking and taking the drug becomes compulsive. This is mostly due to the effects of long-term drug exposure on brain function. Addiction affects parts of the brain involved in reward and motivation, learning and memory, and control over behavior.

Addiction is a disease that affects both the brain and behavior.

Can drug addiction be treated?

Yes, but it’s not simple. Because addiction is a chronic disease, people can’t simply stop using drugs for a few days and be cured. Most patients need long-term or repeated care to stop using completely and recover their lives.
Addiction treatment must help the person do the following:
- stop using drugs
- stay drug-free
- be productive in the family, at work, and in society

**Principles of Effective Treatment**
Based on scientific research since the mid-1970s, the following key principles should form the basis of any effective treatment program:
- Addiction is a complex but treatable disease that affects brain function and behavior.
- No single treatment is right for everyone.
- People need to have quick access to treatment.
- Effective treatment addresses all of the patient’s needs, not just his or her drug use.
- Staying in treatment long enough is critical.
- Counseling and other behavioral therapies are the most commonly used forms of treatment.
- Medications are often an important part of treatment, especially when combined with behavioral therapies.
- Treatment plans must be reviewed often and modified to fit the patient’s changing needs.
- Treatment should address other possible mental disorders.
- Medically assisted detoxification is only the first stage of treatment.
- Treatment doesn’t need to be voluntary to be effective.
- Drug use during treatment must be monitored continuously.
- Treatment programs should test patients for HIV/AIDS, hepatitis B and C, tuberculosis, and other infectious diseases as well as teach them about steps they can take to reduce their risk of these illnesses.

**How is drug addiction treated?**

Successful treatment has several steps:
- detoxification (the process by which the body rids itself of a drug)
- behavioral counseling
- medication (for opioid, tobacco, or alcohol addiction)
- evaluation and treatment for co-occurring mental health issues such as depression and anxiety
- long-term follow-up to prevent relapse

A range of care with a tailored treatment program and follow-up options can be crucial to success. Treatment should include both medical and mental health services as needed. Follow-up care may include community- or family-based recovery support systems.

**How are medications used in drug addiction treatment?**

Medications can be used to manage withdrawal symptoms, prevent relapse, and treat co-occurring conditions.
Withdrawal. Medications help suppress withdrawal symptoms during detoxification. Detoxification is not in itself "treatment," but only the first step in the process. Patients who do not receive any further treatment after detoxification usually resume their drug use. One study of treatment facilities found that medications were used in almost 80 percent of detoxifications (SAMHSA, 2014).

Relapse prevention. Patients can use medications to help re-establish normal brain function and decrease cravings. Medications are available for treatment of opioid (heroin, prescription pain relievers), tobacco (nicotine), and alcohol addiction. Scientists are developing other medications to treat stimulant (cocaine, methamphetamine) and cannabis (marijuana) addiction. People who use more than one drug, which is very common, need treatment for all of the substances they use.

- **Opioids:** Methadone (Dolophine®, Methadose®), buprenorphine (Suboxone®, Subutex®, Probuphine®), and naltrexone (Vivitrol®) are used to treat opioid addiction. Acting on the same targets in the brain as heroin and morphine, methadone and buprenorphine suppress withdrawal symptoms and relieve cravings. Naltrexone blocks the effects of opioids at their receptor sites in the brain and should be used only in patients who have already been detoxified. All medications help patients reduce drug seeking and related criminal behavior and help them become more open to behavioral treatments.

- **Tobacco:** Nicotine replacement therapies have several forms, including the patch, spray, gum, and lozenges. These products are available over the counter. The U.S. Food and Drug Administration (FDA) has approved two prescription medications for nicotine addiction: bupropion (Zyban®) and varenicline (Chantix®). They work differently in the brain, but both help prevent relapse in people trying to quit. The medications are more effective when combined with behavioral treatments, such as group and individual therapy as well as telephone quitlines.

- **Alcohol:** Three medications have been FDA-approved for treating alcohol addiction and a fourth, topiramate, has shown promise in clinical trials (large-scale studies with people). The three approved medications are as follows:
  - **Naltrexone** blocks opioid receptors that are involved in the rewarding effects of drinking and in the craving for alcohol. It reduces relapse to heavy drinking and is highly effective in some patients. Genetic differences may affect how well the drug works in certain patients.
  - **Acamprosate (Campral®)** may reduce symptoms of long-lasting withdrawal, such as insomnia, anxiety, restlessness, and dysphoria (generally feeling unwell or unhappy). It may be more effective in patients with severe addiction.
  - **Disulfiram (Antabuse®)** interferes with the breakdown of alcohol. Acetaldehyde builds up in the body, leading to unpleasant reactions that include flushing (warmth and redness in the face), nausea, and irregular heartbeat if the patient drinks alcohol. Compliance (taking the drug as prescribed) can be a problem, but it may help patients who are highly motivated to quit drinking.

- **Co-occurring conditions:** Other medications are available to treat possible mental health conditions, such as depression or anxiety, that may be contributing to the person’s addiction.
How are behavioral therapies used to treat drug addiction?

Behavioral therapies help patients:
- modify their attitudes and behaviors related to drug use
- increase healthy life skills
- persist with other forms of treatment, such as medication

Patients can receive treatment in many different settings with various approaches.

**Outpatient behavioral treatment** includes a wide variety of programs for patients who visit a behavioral health counselor on a regular schedule. Most of the programs involve individual or group drug counseling, or both. These programs typically offer forms of behavioral therapy such as:
- **cognitive-behavioral therapy**, which helps patients recognize, avoid, and cope with the situations in which they are most likely to use drugs
- **multidimensional family therapy**—developed for adolescents with drug abuse problems as well as their families—which addresses a range of influences on their drug abuse patterns and is designed to improve overall family functioning
- **motivational interviewing**, which makes the most of people’s readiness to change their behavior and enter treatment
- **motivational incentives** (contingency management), which uses positive reinforcement to encourage abstinence from drugs

Treatment is sometimes intensive at first, where patients attend multiple outpatient sessions each week. After completing intensive treatment, patients transition to regular outpatient treatment, which meets less often and for fewer hours per week to help sustain their recovery.
Inpatient or residential treatment can also be very effective, especially for those with more severe problems (including co-occurring disorders). Licensed residential treatment facilities offer 24-hour structured and intensive care, including safe housing and medical attention. Residential treatment facilities may use a variety of therapeutic approaches, and they are generally aimed at helping the patient live a drug-free, crime-free lifestyle after treatment. Examples of residential treatment settings include:

- **Therapeutic communities**, which are highly structured programs in which patients remain at a residence, typically for 6 to 12 months. The entire community, including treatment staff and those in recovery, act as key agents of change, influencing the patient’s attitudes, understanding, and behaviors associated with drug use. Read more about therapeutic communities in the *Therapeutic Communities Research Report* at [https://www.drugabuse.gov/publications/research-reports/therapeutic-communities](https://www.drugabuse.gov/publications/research-reports/therapeutic-communities).
- **Shorter-term residential treatment**, which typically focuses on detoxification as well as providing initial intensive counseling and preparation for treatment in a community-based setting.
- **Recovery housing**, which provides supervised, short-term housing for patients, often following other types of inpatient or residential treatment. Recovery housing can help people make the transition to an independent life—for example, helping them learn how to manage finances or seek employment, as well as connecting them to support services in the community.

**Is treatment different for criminal justice populations?**

Scientific research since the mid-1970s shows that drug abuse treatment can help many drug-using offenders change their attitudes, beliefs, and behaviors towards drug abuse; avoid relapse; and successfully remove themselves from a life of substance abuse and crime. Many of the principles of treating drug addiction are similar for people within the criminal justice system as for those in the general population. However, many offenders don’t have access to the types of services they need. Treatment that is of poor quality or is not well suited to the needs of offenders may not be effective at reducing drug use and criminal behavior.

In addition to the general principles of treatment, some considerations specific to offenders include the following:

- Treatment should include development of specific cognitive skills to help the offender adjust attitudes and beliefs that lead to drug abuse and crime, such as feeling entitled to have things one’s own way or not understanding the consequences of one’s behavior. This includes skills related to thinking, understanding, learning, and remembering.

**Challenges of Re-entry**

Drug abuse changes the function of the brain, and many things can "trigger" drug cravings within the brain. It’s critical for those in treatment, especially those treated at an inpatient facility or prison, to learn how to recognize, avoid, and cope with triggers they are likely to be exposed to after treatment.
Treatment planning should include tailored services within the correctional facility as well as transition to community-based treatment after release.

Ongoing coordination between treatment providers and courts or parole and probation officers is important in addressing the complex needs of offenders re-entering society.

**How many people get treatment for drug addiction?**

According to SAMHSA's National Survey on Drug Use and Health, 22.5 million people (8.5 percent of the U.S. population) aged 12 or older needed treatment for an illicit* drug or alcohol use problem in 2014. Only 4.2 million (18.5 percent of those who needed treatment) received any substance use treatment in the same year. Of these, about 2.6 million people received treatment at specialty treatment programs (CBHSQ, 2015).

*The term "illicit" refers to the use of illegal drugs, including marijuana according to federal law, and misuse of prescription medications.

**Points to Remember**

- Drug addiction can be treated, but it’s not simple. Addiction treatment must help the person do the following:
  - stop using drugs
  - stay drug-free
  - be productive in the family, at work, and in society
- Successful treatment has several steps:
  - detoxification
  - behavioral counseling
  - medication (for opioid, tobacco, or alcohol addiction)
  - evaluation and treatment for co-occurring mental health issues such as depression and anxiety
  - long-term follow-up to prevent relapse
- Medications can be used to manage withdrawal symptoms, prevent relapse, and treat co-occurring conditions.
- Behavioral therapies help patients:
  - modify their attitudes and behaviors related to drug use
  - increase healthy life skills
  - persist with other forms of treatment, such as medication
- People within the criminal justice system may need additional treatment services to treat drug use disorders effectively. However, many offenders don’t have access to the types of services they need.
Learn More

For more information about drug addiction treatment, visit:  

For information about drug addiction treatment in the criminal justice system, visit:  
www.drugabuse.gov/publications/principles-drug-abuse-treatment-criminal-justice-populations/principles

For step-by-step guides for people who think they or a loved one may need treatment, visit:  
www.drugabuse.gov/related-topics/treatment

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Drug addiction is a complex illness. It is characterized by intense and, at times, uncontrollable drug craving, along with compulsive drug seeking and use that persist even in the face of devastating consequences. This update of the National Institute on Drug Abuse’s *Principles of Drug Addiction Treatment* is intended to address addiction to a wide variety of drugs, including nicotine, alcohol, and illicit and prescription drugs. It is designed to serve as a resource for healthcare providers, family members, and other stakeholders trying to address the myriad problems faced by patients in need of treatment for drug abuse or addiction.

Addiction affects multiple brain circuits, including those involved in reward and motivation, learning and memory, and inhibitory control over behavior. That is why addiction is a brain disease. Some individuals are more vulnerable than others to becoming addicted, depending on the interplay between genetic makeup, age of exposure to drugs, and other environmental influences. While a person initially chooses to take drugs, over time the effects of prolonged exposure on brain functioning compromise that ability to choose, and seeking and consuming the drug become compulsive, often eluding a person’s self-control or willpower.

But addiction is more than just compulsive drug taking—it can also produce far-reaching health and social consequences. For example, drug abuse and addiction increase a person’s risk for a variety of other mental and physical illnesses related to a drug-abusing lifestyle or the toxic effects of the drugs themselves. Additionally, the dysfunctional behaviors that result from drug abuse can interfere with a person’s normal functioning in the family, the workplace, and the broader community.

Because drug abuse and addiction have so many dimensions and disrupt so many aspects of an individual’s life, treatment is not simple. Effective treatment programs...
typically incorporate many components, each directed to a particular aspect of the illness and its consequences. Addiction treatment must help the individual stop using drugs, maintain a drug-free lifestyle, and achieve productive functioning in the family, at work, and in society. Because addiction is a disease, most people cannot simply stop using drugs for a few days and be cured. Patients typically require long-term or repeated episodes of care to achieve the ultimate goal of sustained abstinence and recovery of their lives. Indeed, scientific research and clinical practice demonstrate the value of continuing care in treating addiction, with a variety of approaches having been tested and integrated in residential and community settings.

As we look toward the future, we will harness new research results on the influence of genetics and environment on gene function and expression (i.e., epigenetics), which are heralding the development of personalized treatment interventions. These findings will be integrated with current evidence supporting the most effective drug abuse and addiction treatments and their implementation, which are reflected in this guide.

Nora D. Volkow, M.D.
Director
National Institute on Drug Abuse
Principles of Effective Treatment

1. **Addiction is a complex but treatable disease that affects brain function and behavior.** Drugs of abuse alter the brain’s structure and function, resulting in changes that persist long after drug use has ceased. This may explain why drug abusers are at risk for relapse even after long periods of abstinence and despite the potentially devastating consequences.

2. **No single treatment is appropriate for everyone.** Treatment varies depending on the type of drug and the characteristics of the patients. Matching treatment settings, interventions, and services to an individual’s particular problems and needs is critical to his or her ultimate success in returning to productive functioning in the family, workplace, and society.

3. **Treatment needs to be readily available.** Because drug-addicted individuals may be uncertain about entering treatment, taking advantage of available services the moment people are ready for treatment is critical. Potential patients can be lost if treatment is not immediately available or readily accessible. As with other chronic diseases, the earlier treatment is offered in the disease process, the greater the likelihood of positive outcomes.

4. **Effective treatment attends to multiple needs of the individual, not just his or her drug abuse.** To be effective, treatment must address the individual’s drug abuse and any associated medical, psychological, social, vocational, and legal problems. It is also important that treatment be appropriate to the individual’s age, gender, ethnicity, and culture.

5. **Remaining in treatment for an adequate period of time is critical.** The appropriate duration for an individual depends on the type and degree of the patient’s problems and needs. Research indicates that most addicted individuals need at least 3 months in treatment to significantly reduce or stop their drug use and that the best outcomes occur with longer durations of treatment. Recovery from drug addiction is a long-term process and frequently requires multiple episodes of treatment. As with other chronic illnesses, relapses to drug abuse can occur and should signal a need for treatment to be reinstated or adjusted. Because individuals often leave treatment prematurely, programs should include strategies to engage and keep patients in treatment.

6. **Behavioral therapies—including individual, family, or group counseling—are the most commonly used forms of drug abuse treatment.** Behavioral therapies vary in their focus and may involve addressing a patient’s motivation to change, providing incentives for abstinence, building skills to resist drug use, replacing drug-using activities with constructive and rewarding activities, improving problem-solving skills, and facilitating better interpersonal relationships. Also, participation in group therapy and other peer support programs during and following treatment can help maintain abstinence.

7. **Medications are an important element of treatment for many patients, especially when combined with counseling and other behavioral therapies.** For example, methadone, buprenorphine, and naltrexone (including a new long-acting formulation) are effective in helping individuals addicted to heroin or other opioids stabilize their lives and reduce their illicit drug use. Acamprosate, disulfiram, and naltrexone are medications approved for treating alcohol dependence. For persons addicted to nicotine, a nicotine replacement product (available as patches, gum, lozenges, or nasal spray) or an oral medication (such as bupropion or varenicline) can be an effective component of treatment when part of a comprehensive behavioral treatment program.
8. **An individual’s treatment and services plan must be assessed continually and modified as necessary to ensure that it meets his or her changing needs.** A patient may require varying combinations of services and treatment components during the course of treatment and recovery. In addition to counseling or psychotherapy, a patient may require medication, medical services, family therapy, parenting instruction, vocational rehabilitation, and/or social and legal services. For many patients, a continuing care approach provides the best results, with the treatment intensity varying according to a person’s changing needs.

9. **Many drug-addicted individuals also have other mental disorders.** Because drug abuse and addiction—both of which are mental disorders—often co-occur with other mental illnesses, patients presenting with one condition should be assessed for the other(s). And when these problems co-occur, treatment should address both (or all), including the use of medications as appropriate.

10. **Medically assisted detoxification is only the first stage of addiction treatment and by itself does little to change long-term drug abuse.** Although medically assisted detoxification can safely manage the acute physical symptoms of withdrawal and can, for some, pave the way for effective long-term addiction treatment, detoxification alone is rarely sufficient to help addicted individuals achieve long-term abstinence. Thus, patients should be encouraged to continue drug treatment following detoxification. Motivational enhancement and incentive strategies, begun at initial patient intake, can improve treatment engagement.

11. **Treatment does not need to be voluntary to be effective.** Sanctions or enticements from family, employment settings, and/or the criminal justice system can significantly increase treatment entry, retention rates, and the ultimate success of drug treatment interventions.

12. **Drug use during treatment must be monitored continuously, as lapses during treatment do occur.** Knowing their drug use is being monitored can be a powerful incentive for patients and can help them withstand urges to use drugs. Monitoring also provides an early indication of a return to drug use, signaling a possible need to adjust an individual’s treatment plan to better meet his or her needs.

13. **Treatment programs should test patients for the presence of HIV/AIDS, hepatitis B and C, tuberculosis, and other infectious diseases, as well as provide targeted risk-reduction counseling, linking patients to treatment if necessary.** Typically, drug abuse treatment addresses some of the drug-related behaviors that put people at risk of infectious diseases. Targeted counseling focused on reducing infectious disease risk can help patients further reduce or avoid substance-related and other high-risk behaviors. Counseling can also help those who are already infected to manage their illness. Moreover, engaging in substance abuse treatment can facilitate adherence to other medical treatments. Substance abuse treatment facilities should provide onsite, rapid HIV testing rather than referrals to offsite testing—research shows that doing so increases the likelihood that patients will be tested and receive their test results. Treatment providers should also inform patients that highly active antiretroviral therapy (HAART) has proven effective in combating HIV, including among drug-abusing populations, and help link them to HIV treatment if they test positive.
1. **Why do drug-addicted persons keep using drugs?**

   Nearly all addicted individuals believe at the outset that they can stop using drugs on their own, and most try to stop without treatment. Although some people are successful, many attempts result in failure to achieve long-term abstinence. Research has shown that long-term drug abuse results in changes in the brain that persist long after a person stops using drugs. These drug-induced changes in brain function can have many behavioral consequences, including an inability to exert control over the impulse to use drugs despite adverse consequences—the defining characteristic of addiction.

   **Long-term drug use results in significant changes in brain function that can persist long after the individual stops using drugs.**

   Understanding that addiction has such a fundamental biological component may help explain the difficulty of achieving and maintaining abstinence without treatment. Psychological stress from work, family problems, psychiatric illness, pain associated with medical problems, social cues (such as meeting individuals from one’s drug-using past), or environmental cues (such as encountering streets, objects, or even smells associated with drug abuse) can trigger intense cravings without the individual even being consciously aware of the triggering event. Any one of these factors can hinder attainment of sustained abstinence and make relapse more likely. Nevertheless, research indicates that active participation in treatment is an essential component for good outcomes and can benefit even the most severely addicted individuals.
combination of treatments will vary depending on the patient’s individual needs and, often, on the types of drugs they use.

**Drug addiction treatment can include medications, behavioral therapies, or their combination.**

Treatment medications, such as methadone, buprenorphine, and naltrexone (including a new long-acting formulation), are available for individuals addicted to opioids, while nicotine preparations (patches, gum, lozenges, and nasal spray) and the medications varenicline and bupropion are available for individuals addicted to tobacco. Disulfiram, acamprosate, and naltrexone are medications available for treating alcohol dependence, which commonly co-occurs with other drug addictions, including addiction to prescription medications.

Treatments for prescription drug abuse tend to be similar to those for illicit drugs that affect the same brain systems. For example, buprenorphine, used to treat heroin addiction, can also be used to treat addiction to opioid pain medications. Addiction to prescription stimulants, which affect the same brain systems as illicit stimulants like cocaine, can be treated with behavioral therapies, as there are not yet medications for treating addiction to these types of drugs.

Behavioral therapies can help motivate people to participate in drug treatment, offer strategies for coping with drug cravings, teach ways to avoid drugs and prevent relapse, and help individuals deal with relapse if it occurs. Behavioral therapies can also help people improve communication, relationship, and parenting skills, as well as family dynamics.

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1. Another drug, topiramate, has also shown promise in studies and is sometimes prescribed (off-label) for this purpose although it has not received FDA approval as a treatment for alcohol dependence.
3. **How effective is drug addiction treatment?**

In addition to stopping drug abuse, the goal of treatment is to return people to productive functioning in the family, workplace, and community. According to research that tracks individuals in treatment over extended periods, most people who get into and remain in treatment stop using drugs, decrease their criminal activity, and improve their occupational, social, and psychological functioning. For example, methadone treatment has been shown to increase participation in behavioral therapy and decrease both drug use and criminal behavior. However, individual treatment outcomes depend on the extent and nature of the patient’s problems, the appropriateness of treatment and related services used to address those problems, and the quality of interaction between the patient and his or her treatment providers.

Relapse rates for addiction resemble those of other chronic diseases such as diabetes, hypertension, and asthma.

Like other chronic diseases, addiction can be managed successfully. Treatment enables people to counteract addiction’s powerful disruptive effects on the brain and behavior and to regain control of their lives. The chronic nature of the disease means that relapsing to drug abuse is not only possible but also likely, with symptom recurrence rates similar to those for other well-characterized chronic medical illnesses—such as diabetes, hypertension, and asthma (see figure, “Comparison of Relapse Rates Between Drug Addiction and Other Chronic Illnesses”)—that also have both physiological and behavioral components.

Many treatment programs employ both individual and group therapies. Group therapy can provide social reinforcement and help enforce behavioral contingencies that promote abstinence and a non-drug-using lifestyle. Some of the more established behavioral treatments, such as contingency management and cognitive-behavioral therapy, are also being adapted for group settings to improve efficiency and cost-effectiveness. However, particularly in adolescents, there can also be a danger of unintended harmful (or iatrogenic) effects of group treatment—sometimes group members (especially groups of highly delinquent youth) can reinforce drug use and thereby derail the purpose of the therapy. Thus, trained counselors should be aware of and monitor for such effects.

Because they work on different aspects of addiction, combinations of behavioral therapies and medications (when available) generally appear to be more effective than either approach used alone.

Finally, people who are addicted to drugs often suffer from other health (e.g., depression, HIV), occupational, legal, familial, and social problems that should be addressed concurrently. The best programs provide a combination of therapies and other services to meet an individual patient’s needs. Psychoactive medications, such as antidepressants, anti-anxiety agents, mood stabilizers, and antipsychotic medications, may be critical for treatment success when patients have co-occurring mental disorders such as depression, anxiety disorders (including post-traumatic stress disorder), bipolar disorder, or schizophrenia. In addition, most people with severe addiction abuse multiple drugs and require treatment for all substances abused.
Comparison of Relapse Rates Between Drug Addiction and Other Chronic Illnesses

Percentage of Patients Who Relapse

<table>
<thead>
<tr>
<th>Illness</th>
<th>Type 1 Diabetes</th>
<th>Drug Addiction</th>
<th>Hypertension</th>
<th>Asthma</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 to 50%</td>
<td>40 to 60%</td>
<td>50 to 70%</td>
<td>50 to 70%</td>
<td></td>
</tr>
</tbody>
</table>

Unfortunately, when relapse occurs many deem treatment a failure. This is not the case: Successful treatment for addiction typically requires continual evaluation and modification as appropriate, similar to the approach taken for other chronic diseases. For example, when a patient is receiving active treatment for hypertension and symptoms decrease, treatment is deemed successful, even though symptoms may recur when treatment is discontinued. For the addicted individual, lapses to drug abuse do not indicate failure—rather, they signify that treatment needs to be reinstated or adjusted, or that alternate treatment is needed (see figure, “Why is Addiction Treatment Evaluated Differently?”).

4. **Is drug addiction treatment worth its cost?**

Substance abuse costs our Nation over $600 billion annually and treatment can help reduce these costs. Drug addiction treatment has been shown to reduce associated health and social costs by far more than the cost of the treatment itself. Treatment is also much less expensive than its alternatives, such as incarcerating addicted persons. For example, the average cost for 1 full year of methadone maintenance treatment is approximately $4,700 per patient, whereas 1 full year of imprisonment costs approximately $24,000 per person.

Drug addiction treatment reduces drug use and its associated health and social costs.

According to several conservative estimates, every dollar invested in addiction treatment programs yields a return of between $4 and $7 in reduced drug-related crime, criminal justice costs, and theft. When savings related to healthcare are included, total savings can exceed costs by a ratio of 12 to 1. Major savings to the individual and to society also stem from fewer interpersonal conflicts; greater workplace productivity; and fewer drug-related accidents, including overdoses and deaths.
5. **How long does drug addiction treatment usually last?**

Individuals progress through drug addiction treatment at various rates, so there is no predetermined length of treatment. However, research has shown unequivocally that good outcomes are contingent on adequate treatment length. Generally, for residential or outpatient treatment, participation for less than 90 days is of limited effectiveness, and treatment lasting significantly longer is recommended for maintaining positive outcomes. For methadone maintenance, 12 months is considered the minimum, and some opioid-addicted individuals continue to benefit from methadone maintenance for many years.

### Good outcomes are contingent on adequate treatment length.

Treatment dropout is one of the major problems encountered by treatment programs; therefore, motivational techniques that can keep patients engaged will also improve outcomes. By viewing addiction as a chronic disease and offering continuing care and monitoring, programs can succeed, but this will often require multiple episodes of treatment and readily readmitting patients that have relapsed.

6. **What helps people stay in treatment?**

Because successful outcomes often depend on a person’s staying in treatment long enough to reap its full benefits, strategies for keeping people in treatment are critical. Whether a patient stays in treatment depends on factors associated with both the individual and the program. Individual factors related to engagement and retention typically include motivation to change drug-using behavior; degree of support from family and friends; and, frequently, pressure from the criminal justice system, child protection services, employers, or family. Within a treatment program, successful clinicians can establish a positive, therapeutic relationship with their patients. The clinician should ensure that a treatment plan is developed cooperatively with the person seeking treatment, that the plan is followed, and that treatment expectations are clearly understood. Medical, psychiatric, and social services should also be available.

### Whether a patient stays in treatment depends on factors associated with both the individual and the program.

Because some problems (such as serious medical or mental illness or criminal involvement) increase the likelihood of patients dropping out of treatment, intensive interventions may be required to retain them. After a course of intensive treatment, the provider should ensure a transition to less intensive continuing care to support and monitor individuals in their ongoing recovery.

7. **How do we get more substance-abusing people into treatment?**

It has been known for many years that the “treatment gap” is massive—that is, among those who need treatment for a substance use disorder, few receive it. In 2011, 21.6 million persons aged 12 or older needed treatment for an illicit drug or alcohol use problem, but only 2.3 million received treatment at a specialty substance abuse facility.

Reducing this gap requires a multipronged approach. Strategies include increasing access to effective treatment, achieving insurance parity (now in its earliest phase of implementation), reducing stigma, and raising awareness...
among both patients and healthcare professionals of the value of addiction treatment. To assist physicians in identifying treatment need in their patients and making appropriate referrals, NIDA is encouraging widespread use of screening, brief intervention, and referral to treatment (SBIRT) tools for use in primary care settings through its NIDAMED initiative. SBIRT, which evidence shows to be effective against tobacco and alcohol use—and, increasingly, against abuse of illicit and prescription drugs—has the potential not only to catch people before serious drug problems develop but also to identify people in need of treatment and connect them with appropriate treatment providers.

8. **How can family and friends make a difference in the life of someone needing treatment?**

   Family and friends can play critical roles in motivating individuals with drug problems to enter and stay in treatment. Family therapy can also be important, especially for adolescents. Involvement of a family member or significant other in an individual’s treatment program can strengthen and extend treatment benefits.

9. **Where can family members go for information on treatment options?**

   Trying to locate appropriate treatment for a loved one, especially finding a program tailored to an individual’s particular needs, can be a difficult process. However, there are some resources to help with this process. For example, NIDA’s handbook *Seeking Drug Abuse Treatment: Know What to Ask* offers guidance in finding the right treatment program. Numerous online resources can help locate a local program or provide other information, including:

   - The Substance Abuse and Mental Health Services Administration (SAMHSA) maintains a Web site (findtreatment.samhsa.gov) that shows the location of residential, outpatient, and hospital inpatient treatment programs for drug addiction and alcoholism throughout the country. This information is also accessible by calling 1-800-662-HELP.
   - The National Suicide Prevention Lifeline (1-800-273-TALK) offers more than just suicide prevention—it can also help with a host of issues, including drug and alcohol abuse, and can connect individuals with a nearby professional.
   - The National Alliance on Mental Illness (nami.org) and Mental Health America (mentalhealthamerica.net) are alliances of nonprofit, self-help support organizations for patients and families dealing with a variety of mental disorders. Both have State and local affiliates throughout the United States and may be especially helpful for patients with comorbid conditions.
   - The American Academy of Addiction Psychiatry and the American Academy of Child and Adolescent Psychiatry each have physician locator tools posted on their Web sites at aaap.org and aacap.org, respectively.
   - Faces & Voices of Recovery (facesandvoicesofrecovery.org), founded in 2001, is an advocacy organization for individuals in long-term recovery that strategizes on ways to reach out to the medical, public health, criminal justice, and other communities to promote and celebrate recovery from addiction to alcohol and other drugs.
   - The Partnership at Drugfree.org (drugfree.org) is an organization that provides information and resources on teen drug use and addiction for parents, to help them prevent and intervene in their children’s drug use or find treatment for a child who needs it. They offer a toll-free helpline for parents (1-855-378-4373).
10. How can the workplace play a role in substance abuse treatment?

Many workplaces sponsor Employee Assistance Programs (EAPs) that offer short-term counseling and/or assistance in linking employees with drug or alcohol problems to local treatment resources, including peer support/recovery groups. In addition, therapeutic work environments that provide employment for drug-abusing individuals who can demonstrate abstinence have been shown not only to promote a continued drug-free lifestyle but also to improve job skills, punctuality, and other behaviors necessary for active employment throughout life. Urine testing facilities, trained personnel, and workplace monitors are needed to implement this type of treatment.

11. What role can the criminal justice system play in addressing drug addiction?

It is estimated that about one-half of State and Federal prisoners abuse or are addicted to drugs, but relatively few receive treatment while incarcerated. Initiating drug abuse treatment in prison and continuing it upon release is vital to both individual recovery and to public health and safety. Various studies have shown that combining prison- and community-based treatment for addicted offenders reduces the risk of both recidivism to drug-related criminal behavior and relapse to drug use—which, in turn, nets huge savings in societal costs. A 2009 study in Baltimore, Maryland, for example, found that opioid-addicted prisoners who started methadone treatment (along with counseling) in prison and then continued it after release had better outcomes (reduced drug use and criminal activity) than those who only received counseling while in prison or those who only started methadone treatment after their release.

Individuals who enter treatment under legal pressure have outcomes as favorable as those who enter treatment voluntarily.

The majority of offenders involved with the criminal justice system are not in prison but are under community supervision. For those with known drug problems, drug addiction treatment may be recommended or mandated as a condition of probation. Research has demonstrated that individuals who enter treatment under legal pressure have outcomes as favorable as those who enter treatment voluntarily.

The criminal justice system refers drug offenders into treatment through a variety of mechanisms, such as
diverting nonviolent offenders to treatment; stipulating treatment as a condition of incarceration, probation, or pretrial release; and convening specialized courts, or drug courts, that handle drug offense cases. These courts mandate and arrange for treatment as an alternative to incarceration, actively monitor progress in treatment, and arrange for other services for drug-involved offenders.

The most effective models integrate criminal justice and drug treatment systems and services. Treatment and criminal justice personnel work together on treatment planning—including implementation of screening, placement, testing, monitoring, and supervision—as well as on the systematic use of sanctions and rewards. Treatment for incarcerated drug abusers should include continuing care, monitoring, and supervision after incarceration and during parole. Methods to achieve better coordination between parole/probation officers and health providers are being studied to improve offender outcomes. (For more information, please see NIDA's Principles of Drug Abuse Treatment for Criminal Justice Populations: A Research-Based Guide [revised 2012].)

12. **What are the unique needs of women with substance use disorders?**

Gender-related drug abuse treatment should attend not only to biological differences but also to social and environmental factors, all of which can influence the motivations for drug use, the reasons for seeking treatment, the types of environments where treatment is obtained, the treatments that are most effective, and the consequences of not receiving treatment. Many life circumstances predominate in women as a group, which may require a specialized treatment approach. For example, research has shown that physical and sexual trauma followed by post-traumatic stress disorder (PTSD) is more common in drug-abusing women than in men seeking treatment. Other factors unique to women that can influence the treatment process include issues around how they come into treatment (as women are more likely than men to seek the assistance of a general or mental health practitioner), financial independence, and pregnancy and child care.

13. **What are the unique needs of pregnant women with substance use disorders?**

Using drugs, alcohol, or tobacco during pregnancy exposes not just the woman but also her developing fetus to the substance and can have potentially deleterious and even long-term effects on exposed children. Smoking during pregnancy can increase risk of stillbirth, infant mortality, sudden infant death syndrome, preterm birth, respiratory problems, slowed fetal growth, and low birth weight. Drinking during pregnancy can lead to the child developing fetal alcohol spectrum disorders, characterized by low birth weight and enduring cognitive and behavioral problems.

Prenatal use of some drugs, including opioids, may cause a withdrawal syndrome in newborns called neonatal abstinence syndrome (NAS). Babies with NAS are at greater risk of seizures, respiratory problems, feeding difficulties, low birth weight, and even death.

Research has established the value of evidence-based treatments for pregnant women (and their babies), including medications. For example, although no medications have been FDA-approved to treat opioid dependence in pregnant women, methadone maintenance combined with prenatal care and a comprehensive drug treatment program can improve many of the detrimental outcomes associated with untreated heroin abuse. However, newborns exposed to methadone
during pregnancy still require treatment for withdrawal symptoms. Recently, another medication option for opioid dependence, buprenorphine, has been shown to produce fewer NAS symptoms in babies than methadone, resulting in shorter infant hospital stays. In general, it is important to closely monitor women who are trying to quit drug use during pregnancy and to provide treatment as needed.

14. What are the unique needs of adolescents with substance use disorders?

Adolescent drug abusers have unique needs stemming from their immature neurocognitive and psychosocial stage of development. Research has demonstrated that the brain undergoes a prolonged process of development and refinement from birth through early adulthood. Over the course of this developmental period, a young person’s actions go from being more impulsive to being more reasoned and reflective. In fact, the brain areas most closely associated with aspects of behavior such as decision-making, judgment, planning, and self-control undergo a period of rapid development during adolescence and young adulthood.

Adolescent drug abuse is also often associated with other co-occurring mental health problems. These include attention-deficit hyperactivity disorder (ADHD), oppositional defiant disorder, and conduct problems, as well as depressive and anxiety disorders.

Adolescents are also especially sensitive to social cues, with peer groups and families being highly influential during this time. Therefore, treatments that facilitate positive parental involvement, integrate other systems in which the adolescent participates (such as school and athletics), and recognize the importance of prosocial peer relationships are among the most effective. Access to comprehensive assessment, treatment, case management, and family-support services that are developmentally, culturally, and gender-appropriate is also integral when addressing adolescent addiction.

Medications for substance abuse among adolescents may in certain cases be helpful. Currently, the only addiction medications approved by FDA for people under 18 are over-the-counter transdermal nicotine skin patches, chewing gum, and lozenges (physician advice should be sought first). Buprenorphine, a medication for treating opioid addiction that must be prescribed by specially trained physicians, has not been approved for adolescents, but recent research suggests it could be effective for those as young as 16. Studies are under way to determine the safety and efficacy of this and other medications for opioid-, nicotine-, and alcohol-dependent adolescents and for adolescents with co-occurring disorders.

15. Are there specific drug addiction treatments for older adults?

With the aging of the baby boomer generation, the composition of the general population is changing dramatically with respect to the number of older adults. Such a change, coupled with a greater history of lifetime drug use (than previous older generations), different cultural norms and general attitudes about drug use, and increases in the availability of psychotherapeutic medications, is already leading to greater drug use by older adults and may increase substance use problems in this population. While substance abuse in older adults often goes unrecognized and therefore untreated, research indicates that currently available addiction treatment programs can be as effective for them as for younger adults.
16. **Can a person become addicted to medications prescribed by a doctor?**

Yes. People who abuse prescription drugs—that is, taking them in a manner or a dose other than prescribed, or taking medications prescribed for another person—risk addiction and other serious health consequences. Such drugs include opioid pain relievers, stimulants used to treat ADHD, and benzodiazepines to treat anxiety or sleep disorders. Indeed, in 2010, an estimated 2.4 million people 12 or older met criteria for abuse of or dependence on prescription drugs, the second most common illicit drug use after marijuana. To minimize these risks, a physician (or other prescribing health provider) should screen patients for prior or current substance abuse problems and assess their family history of substance abuse or addiction before prescribing a psychoactive medication and monitor patients who are prescribed such drugs. Physicians also need to educate patients about the potential risks so that they will follow their physician’s instructions faithfully, safeguard their medications, and dispose of them appropriately.

17. **Is there a difference between physical dependence and addiction?**

Yes. Addiction—or compulsive drug use despite harmful consequences—is characterized by an inability to stop using a drug; failure to meet work, social, or family obligations; and, sometimes (depending on the drug), tolerance and withdrawal. The latter reflect physical dependence in which the body adapts to the drug, requiring more of it to achieve a certain effect (tolerance) and eliciting drug-specific physical or mental symptoms if drug use is abruptly ceased (withdrawal). Physical dependence can happen with the chronic use of many drugs—including many prescription drugs, even if taken as instructed. Thus, physical dependence in and of itself does not constitute addiction, but it often accompanies addiction. This distinction can be difficult to discern, particularly with prescribed pain medications, for which the need for increasing dosages can represent tolerance or a worsening underlying problem, as opposed to the beginning of abuse or addiction.

18. **How do other mental disorders coexisting with drug addiction affect drug addiction treatment?**

Drug addiction is a disease of the brain that frequently occurs with other mental disorders. In fact, as many as 6 in 10 people with an illicit substance use disorder also suffer from another mental illness; and rates are similar for users of licit drugs—i.e., tobacco and alcohol. For these individuals, one condition becomes more difficult to treat successfully as an additional condition is intertwined. Thus, people entering treatment either for a substance use disorder or for another mental disorder should be assessed for the co-occurrence of the other condition. Research indicates that treating both (or multiple) illnesses simultaneously in an integrated fashion is generally the best treatment approach for these patients.
19. **Is the use of medications like methadone and buprenorphine simply replacing one addiction with another?**

No. Buprenorphine and methadone are prescribed or administered under monitored, controlled conditions and are safe and effective for treating opioid addiction when used as directed. They are administered orally or sublingually (i.e., under the tongue) in specified doses, and their effects differ from those of heroin and other abused opioids.

Heroin, for example, is often injected, snorted, or smoked, causing an almost immediate “rush,” or brief period of intense euphoria, that wears off quickly and ends in a “crash.” The individual then experiences an intense craving to use the drug again to stop the crash and reinstate the euphoria.

The cycle of euphoria, crash, and craving—sometimes repeated several times a day—is a hallmark of addiction and results in severe behavioral disruption. These characteristics result from heroin’s rapid onset and short duration of action in the brain.

In contrast, methadone and buprenorphine have gradual onsets of action and produce stable levels of the drug in the brain. As a result, patients maintained on these medications do not experience a rush, while they also markedly reduce their desire to use opioids.

If an individual treated with these medications tries to take an opioid such as heroin, the euphoric effects are usually dampened or suppressed. Patients undergoing maintenance treatment do not experience the physiological or behavioral abnormalities from rapid fluctuations in drug levels associated with heroin use. Maintenance treatments save lives—they help to stabilize individuals, allowing treatment of their medical, psychological, and other problems so they can contribute effectively as members of families and of society.

20. **Where do 12-step or self-help programs fit into drug addiction treatment?**

Self-help groups can complement and extend the effects of professional treatment. The most prominent self-help groups are those affiliated with Alcoholics Anonymous (AA), Narcotics Anonymous (NA), and Cocaine Anonymous (CA); all of which are based on the 12-step model. Most drug addiction treatment programs encourage patients to participate in self-help group therapy during and after formal treatment. These groups can be particularly helpful during recovery, offering an added layer of community-level social support to help people achieve and maintain abstinence and other healthy lifestyle behaviors over the course of a lifetime.
21. **Can exercise play a role in the treatment process?**

Yes. Exercise is increasingly becoming a component of many treatment programs and has proven effective, when combined with cognitive-behavioral therapy, at helping people quit smoking. Exercise may exert beneficial effects by addressing psychosocial and physiological needs that nicotine replacement alone does not, by reducing negative feelings and stress, and by helping prevent weight gain following cessation. Research to determine if and how exercise programs can play a similar role in the treatment of other forms of drug abuse is under way.

22. **How does drug addiction treatment help reduce the spread of HIV/AIDS, hepatitis C (HCV), and other infectious diseases?**

Drug-abusing individuals, including injecting and non-injecting drug users, are at increased risk of human immunodeficiency virus (HIV), hepatitis C virus (HCV), and other infectious diseases. These diseases are transmitted by sharing contaminated drug injection equipment and by engaging in risky sexual behavior sometimes associated with drug use. Effective drug abuse treatment is HIV/HCV prevention because it reduces activities that can spread disease, such as sharing injection equipment and engaging in unprotected sexual activity. Counseling that targets a range of HIV/HCV risk behaviors provides an added level of disease prevention.

Injection drug users who do not enter treatment are up to six times more likely to become infected with HIV than those who enter and remain in treatment. Participation in treatment also presents opportunities for HIV screening and referral to early HIV treatment. In fact, recent research from NIDA’s National Drug Abuse Treatment Clinical Trials Network showed that providing rapid onsite HIV testing in substance abuse treatment facilities increased patients’ likelihood of being tested and of receiving their test results. HIV counseling and testing are key aspects of superior drug abuse treatment programs and should be offered to all individuals entering treatment. Greater availability of inexpensive and unobtrusive rapid HIV tests should increase access to these important aspects of HIV prevention and treatment.
Drug addiction is a complex disorder that can involve virtually every aspect of an individual’s functioning—in the family, at work and school, and in the community. Because of addiction’s complexity and pervasive consequences, drug addiction treatment typically must involve many components. Some of those components focus directly on the individual’s drug use; others, like employment training, focus on restoring the addicted individual to productive membership in the family and society (see diagram on page 8), enabling him or her to experience the rewards associated with abstinence.

Treatment for drug abuse and addiction is delivered in many different settings using a variety of behavioral and pharmacological approaches. In the United States, more than 14,500 specialized drug treatment facilities provide counseling, behavioral therapy, medication, case management, and other types of services to persons with substance use disorders.

Along with specialized drug treatment facilities, drug abuse and addiction are treated in physicians’ offices and mental health clinics by a variety of providers, including counselors, physicians, psychiatrists, psychologists, nurses, and social workers. Treatment is delivered in outpatient, inpatient, and residential settings. Although specific treatment approaches often are associated with particular treatment settings, a variety of therapeutic interventions or services can be included in any given setting.

Because drug abuse and addiction are major public health problems, a large portion of drug treatment is funded by local, State, and Federal governments. Private and employer-subsidized health plans also may provide coverage for treatment of addiction and its medical consequences. Unfortunately, managed care has resulted in shorter average stays, while a historical lack of or insufficient coverage for substance abuse treatment has
Further Reading:


**Long-Term Residential Treatment**

Long-term residential treatment provides care 24 hours a day, generally in nonhospital settings. The best-known residential treatment model is the therapeutic community (TC), with planned lengths of stay of between 6 and 12 months. TCs focus on the “resocialization” of the individual and use the program’s entire community—including other residents, staff, and the social context—as active components of treatment. Addiction is viewed in the context of an individual’s social and psychological accountability and responsibility as well as socially productive lives. Treatment is highly structured and can be confrontational at times, with activities designed to help residents examine damaging beliefs, self-concepts, and destructive patterns of behavior and adopt new, more harmonious and constructive ways to interact with others. Many TCs offer comprehensive services, which can include employment training and other support services, onsite. Research shows that TCs can be modified to treat individuals with special needs, including adolescents, women, homeless individuals, people with severe mental disorders, and individuals in the criminal justice system (see page 37).

Further Reading:


**Short-Term Residential Treatment**

Short-term residential programs provide intensive but relatively brief treatment based on a modified 12-step approach. These programs were originally designed to treat alcohol problems, but during the cocaine epidemic of the mid-1980s, many began to treat other types of substance use disorders. The original residential treatment model consisted of a 3- to 6-week hospital-based inpatient treatment phase followed by extended outpatient therapy and participation in a self-help group, such as AA. Following stays in residential treatment programs, it is important for individuals to remain engaged in outpatient treatment programs and/or aftercare programs. These programs help to reduce the risk of relapse once a patient leaves the residential setting.

Further Reading:


**Outpatient Treatment Programs**

Outpatient treatment varies in the types and intensity of services offered. Such treatment costs less than residential or inpatient treatment and often is more suitable for people with jobs or extensive social supports. It should be noted, however, that low-intensity programs may offer little more than drug education. Other outpatient models, such as intensive day treatment, can be comparable to residential programs in services and effectiveness, depending on the individual patient’s characteristics and needs. In many outpatient programs, group counseling can be a major component. Some outpatient programs are also designed to treat patients with medical or other mental health problems in addition to their drug disorders.

Further Reading:


Treating Criminal Justice–Involved Drug Abusers and Addicted Individuals

Often, drug abusers come into contact with the criminal justice system earlier than other health or social systems, presenting opportunities for intervention and treatment prior to, during, after, or in lieu of incarceration. Research has shown that combining criminal justice sanctions with drug treatment can be effective in decreasing drug abuse and related crime. Individuals under legal coercion tend to stay in treatment longer and do as well as or better than those not under legal pressure. Studies show that for incarcerated individuals with drug problems, starting drug abuse treatment in prison and continuing the same treatment upon release—in other words, a seamless continuum of services—results in better outcomes: less drug use and less criminal behavior. More information on how the criminal justice system can address the problem of drug addiction can be found in Principles of Drug Abuse Treatment for Criminal Justice Populations: A Research-Based Guide (National Institute on Drug Abuse, revised 2012).


**Individualized Drug Counseling**

Individualized drug counseling not only focuses on reducing or stopping illicit drug or alcohol use; it also addresses related areas of impaired functioning—such as employment status, illegal activity, and family/social relations—as well as the content and structure of the patient’s recovery program. Through its emphasis on short-term behavioral goals, individualized counseling helps the patient develop coping strategies and tools to abstain from drug use and maintain abstinence. The addiction counselor encourages 12-step participation (at least one or two times per week) and makes referrals for needed supplemental medical, psychiatric, employment, and other services.

**Group Counseling**

Many therapeutic settings use group therapy to capitalize on the social reinforcement offered by peer discussion and to help promote drug-free lifestyles. Research has shown that when group therapy either is offered in conjunction with individualized drug counseling or is formatted to reflect the principles of cognitive-behavioral therapy or contingency management, positive outcomes are achieved. Currently, researchers are testing conditions in which group therapy can be standardized and made more community-friendly.
Each approach to drug treatment is designed to address certain aspects of drug addiction and its consequences for the individual, family, and society.

This section presents examples of treatment approaches and components that have an evidence base supporting their use. Each approach is designed to address certain aspects of drug addiction and its consequences for the individual, family, and society. Some of the approaches are intended to supplement or enhance existing treatment programs, and others are fairly comprehensive in and of themselves.

The following section is broken down into Pharmacotherapies, Behavioral Therapies, and Behavioral Therapies Primarily for Adolescents. They are further subdivided according to particular substance use disorders. This list is not exhaustive, and new treatments are continually under development.

Pharmacotherapies

Opioid Addiction

**Methadone**

Methadone is a long-acting synthetic opioid agonist medication that can prevent withdrawal symptoms and reduce craving in opioid-addicted individuals. It can also block the effects of illicit opioids. It has a long history of use in treatment of opioid dependence in adults and is taken orally. Methadone maintenance treatment is available in all but three States through specially licensed opioid treatment programs or methadone maintenance programs.

**Combined with behavioral treatment**

Research has shown that methadone maintenance is more effective when it includes individual and/or group counseling, with even better outcomes when patients are provided with, or referred to, other needed medical/psychiatric, psychological, and social services (e.g., employment or family services).
Further Reading:


**Buprenorphine**

Buprenorphine is a synthetic opioid medication that acts as a partial agonist at opioid receptors—it does not produce the euphoria and sedation caused by heroin or other opioids but is able to reduce or eliminate withdrawal symptoms associated with opioid dependence and carries a low risk of overdose.

Buprenorphine is currently available in two formulations that are taken sublingually: (1) a pure form of the drug and (2) a more commonly prescribed formulation called Suboxone, which combines buprenorphine with the drug naloxone, an antagonist (or blocker) at opioid receptors. Naloxone has no effect when Suboxone is taken as prescribed, but if an addicted individual attempts to inject Suboxone, the naloxone will produce severe withdrawal symptoms. Thus, this formulation lessens the likelihood that the drug will be abused or diverted to others.

Buprenorphine treatment for detoxification and/or maintenance can be provided in office-based settings by qualified physicians who have received a waiver from the Drug Enforcement Administration (DEA), allowing them to prescribe it. The availability of office-based treatment for opioid addiction is a cost-effective approach that increases the reach of treatment and the options available to patients.

Further Reading:


or parolees. Recently, a long-acting injectable version of naltrexone, called Vivitrol, was approved to treat opioid addiction. Because it only needs to be delivered once a month, this version of the drug can facilitate compliance and offers an alternative for those who do not wish to be placed on agonist/partial agonist medications.

Further Reading:


Tobacco Addiction

**Nicotine Replacement Therapy (NRT)**

A variety of formulations of nicotine replacement therapies (NRTs) now exist, including the transdermal nicotine patch, nicotine spray, nicotine gum, and nicotine lozenges. Because nicotine is the main addictive ingredient in tobacco, the rationale for NRT is that stable low levels of nicotine will prevent withdrawal symptoms—which often drive continued tobacco use—and help keep people motivated to quit. Research shows that combining the patch with another replacement therapy is more effective than a single therapy alone.
Bupropion (Zyban®)

Bupropion was originally marketed as an antidepressant (Wellbutrin). It produces mild stimulant effects by blocking the reuptake of certain neurotransmitters, especially norepinephrine and dopamine. A serendipitous observation among depressed patients was that the medication was also effective in suppressing tobacco craving, helping them quit smoking without also gaining weight. Although bupropion’s exact mechanisms of action in facilitating smoking cessation are unclear, it has FDA approval as a smoking cessation treatment.

Varenicline (Chantix®)

Varenicline is the most recently FDA-approved medication for smoking cessation. It acts on a subset of nicotinic receptors in the brain thought to be involved in the rewarding effects of nicotine. Varenicline acts as a partial agonist/antagonist at these receptors—this means that it mildly stimulates the nicotine receptor but not sufficiently to trigger the release of dopamine, which is important for the rewarding effects of nicotine. As an antagonist, varenicline also blocks the ability of nicotine to activate dopamine, interfering with the reinforcing effects of smoking, thereby reducing cravings and supporting abstinence from smoking.

Combined With Behavioral Treatment

Each of the above pharmacotherapies is recommended for use in combination with behavioral interventions, including group and individual therapies, as well as telephone quitlines. Behavioral approaches complement most tobacco addiction treatment programs. They can amplify the effects of medications by teaching people how to manage stress, recognize and avoid high-risk situations for smoking relapse, and develop alternative coping strategies (e.g., cigarette refusal skills, assertiveness, and time management skills) that they can practice in treatment, social, and work settings. Combined treatment is urged because behavioral and pharmacological treatments are thought to operate by different yet complementary mechanisms that can have additive effects.

Further Reading:


is generally poor. However, among patients who are highly motivated, disulfiram can be effective, and some patients use it episodically for high-risk situations, such as social occasions where alcohol is present. It can also be administered in a monitored fashion, such as in a clinic or by a spouse, improving its efficacy.

**Topiramate**

Topiramate is thought to work by increasing inhibitory (GABA) neurotransmission and reducing stimulatory (glutamate) neurotransmission, although its precise mechanism of action is not known. Although topiramate has not yet received FDA approval for treating alcohol addiction, it is sometimes used off-label for this purpose. Topiramate has been shown in studies to significantly improve multiple drinking outcomes, compared with a placebo.

**Combined With Behavioral Treatment**

While a number of behavioral treatments have been shown to be effective in the treatment of alcohol addiction, it does not appear that an additive effect exists between behavioral treatments and pharmacotherapy. Studies have shown that just getting help is one of the most important factors in treating alcohol addiction; the precise type of treatment received is not as important.

**Further Reading:**

include exploring the positive and negative consequences of continued drug use, self-monitoring to recognize cravings early and identify situations that might put one at risk for use, and developing strategies for coping with cravings and avoiding those high-risk situations.

Research indicates that the skills individuals learn through cognitive-behavioral approaches remain after the completion of treatment. Current research focuses on how to produce even more powerful effects by combining CBT with medications for drug abuse and with other types of behavioral therapies. A computer-based CBT system has also been developed and has been shown to be effective in helping reduce drug use following standard drug abuse treatment.

Further Reading:


### Contingency Management Interventions/ Motivational Incentives (Alcohol, Stimulants, Opioids, Marijuana, Nicotine)

Research has demonstrated the effectiveness of treatment approaches using contingency management (CM) principles, which involve giving patients tangible rewards to reinforce positive behaviors such as abstinence. Studies conducted in both methadone programs and psychosocial counseling treatment programs demonstrate that incentive-based interventions are highly effective in increasing treatment retention and promoting abstinence from drugs.

**Voucher-Based Reinforcement (VBR)** augments other community-based treatments for adults who primarily abuse opioids (especially heroin) or stimulants (especially cocaine) or both. In VBR, the patient receives a voucher for every drug-free urine sample provided. The voucher has monetary value that can be exchanged for food items, movie passes, or other goods or services that are consistent with a drug-free lifestyle. The voucher values are low at first, but increase as the number of consecutive drug-free urine samples increases; positive urine samples reset the value of the vouchers to the initial low value. VBR has been shown to be effective in promoting abstinence from opioids and cocaine in patients undergoing methadone detoxification.

**Prize Incentives CM** applies similar principles as VBR but uses chances to win cash prizes instead of vouchers. Over the course of the program (at least 3 months, one or more times weekly), participants supplying drug-negative urine or breath tests draw from a bowl for the chance to win a prize worth between $1 and $100. Participants may also receive draws for attending counseling sessions and completing weekly goal-related activities. The number of draws starts at one and increases with consecutive negative drug tests and/or counseling sessions attended but resets to one with any drug-positive sample or unexcused absence. The practitioner community has raised concerns that this intervention could promote gambling—as it contains an element of chance—and that pathological gambling and substance use disorders can be comorbid. However, studies examining this concern found that Prize Incentives CM did not promote gambling behavior.

**Further Reading:**


**Community Reinforcement Approach Plus Vouchers (Alcohol, Cocaine, Opioids)**

Community Reinforcement Approach (CRA) Plus Vouchers is an intensive 24-week outpatient therapy for treating people addicted to cocaine and alcohol. It uses a range of recreational, familial, social, and vocational reinforcers, along with material incentives, to make a non-drug-using lifestyle more rewarding than substance use. The treatment goals are twofold:

- To maintain abstinence long enough for patients to learn new life skills to help sustain it; and

- To reduce alcohol consumption for patients whose drinking is associated with cocaine use

Patients attend one or two individual counseling sessions each week, where they focus on improving family relations, learn a variety of skills to minimize drug use, receive vocational counseling, and develop new recreational activities and social networks. Those who also abuse alcohol receive clinic-monitored disulfiram (Antabuse) therapy. Patients submit urine samples two or three times each week and receive vouchers for cocaine-negative samples. As in VBR, the value of the vouchers increases with consecutive clean samples, and the vouchers may be exchanged for retail goods that are consistent with a drug-free lifestyle. Studies in both urban and rural areas have found that this approach facilitates patients' engagement in treatment and successfully aids them in gaining substantial periods of cocaine abstinence.

A computer-based version of CRA Plus Vouchers called the Therapeutic Education System (TES) was found to be nearly as effective as treatment administered by a therapist in promoting abstinence from opioids and cocaine among opioid-dependent individuals in outpatient treatment. A version of CRA for adolescents addresses problem-solving, coping, and communication skills and encourages active participation in positive social and recreational activities.

**Further Reading:**


Motivational Enhancement Therapy (*Alcohol, Marijuana, Nicotine*)

Motivational Enhancement Therapy (MET) is a counseling approach that helps individuals resolve their ambivalence about engaging in treatment and stopping their drug use. This approach aims to evoke rapid and internally motivated change, rather than guide the patient stepwise through the recovery process. This therapy consists of an initial assessment battery session, followed by two to four individual treatment sessions with a therapist. In the first treatment session, the therapist provides feedback to the initial assessment, stimulating discussion about personal substance use and eliciting self-motivational statements. Motivational interviewing principles are used to strengthen motivation and build a plan for change. Coping strategies for high-risk situations are suggested and discussed with the patient.

In subsequent sessions, the therapist monitors change, reviews cessation strategies being used, and continues to encourage commitment to change or sustained abstinence. Patients sometimes are encouraged to bring a significant other to sessions.

Research on MET suggests that its effects depend on the type of drug used by participants and on the goal of the intervention. This approach has been used successfully with people addicted to alcohol to both improve their engagement in treatment and reduce their problem drinking. MET has also been used successfully with marijuana-dependent adults when combined with cognitive-behavioral therapy, constituting a more comprehensive treatment approach. The results of MET are mixed for people abusing other drugs (e.g., heroin, cocaine, nicotine) and for adolescents who tend to use multiple drugs. In general, MET seems to be more effective for engaging drug abusers in treatment than for producing changes in drug use.

Further Reading:


**The Matrix Model (Stimulants)**

The Matrix Model provides a framework for engaging stimulant (e.g., methamphetamine and cocaine) abusers in treatment and helping them achieve abstinence. Patients learn about issues critical to addiction and relapse, receive direction and support from a trained therapist, and become familiar with self-help programs. Patients are monitored for drug use through urine testing.

The therapist functions simultaneously as teacher and coach, fostering a positive, encouraging relationship with the patient and using that relationship to reinforce positive behavior change. The interaction between the therapist and the patient is authentic and direct but not confrontational or parental. Therapists are trained to conduct treatment sessions in a way that promotes the patient’s self-esteem, dignity, and self-worth. A positive relationship between patient and therapist is critical to patient retention.

Treatment materials draw heavily on other tested treatment approaches and, thus, include elements of relapse prevention, family and group therapies, drug education, and self-help participation. Detailed treatment manuals contain worksheets for individual sessions; other components include family education groups, early recovery skills groups, relapse prevention groups, combined sessions, urine tests, 12-step programs, relapse analysis, and social support groups.

A number of studies have demonstrated that participants treated using the Matrix Model show statistically significant reductions in drug and alcohol use, improvements in psychological indicators, and reduced risky sexual behaviors associated with HIV transmission. Further Reading:


**12-Step Facilitation Therapy (Alcohol, Stimulants, Opioids)**

Twelve-step facilitation therapy is an active engagement strategy designed to increase the likelihood of a substance abuser becoming affiliated with and actively involved in 12-step self-help groups, thereby promoting abstinence. Three key ideas predominate: (1) acceptance, which includes the realization that drug addiction is a chronic, progressive disease over which one has no control, that life has become unmanageable because of drugs, that willpower alone is insufficient to overcome the problem, and that abstinence is the only alternative; (2) surrender, which involves giving oneself over to a higher power, accepting the fellowship and support structure of other
recovering addicted individuals, and following the recovery activities laid out by the 12-step program; and (3) active involvement in 12-step meetings and related activities. While the efficacy of 12-step programs (and 12-step facilitation) in treating alcohol dependence has been established, the research on its usefulness for other forms of substance abuse is more preliminary, but the treatment appears promising for helping drug abusers sustain recovery.

Further Reading:


Family Behavior Therapy
Family Behavior Therapy (FBT), which has demonstrated positive results in both adults and adolescents, is aimed at addressing not only substance use problems but other co-occurring problems as well, such as conduct disorders, child mistreatment, depression, family conflict, and unemployment. FBT combines behavioral contracting with contingency management.

FBT involves the patient along with at least one significant other such as a cohabiting partner or a parent (in the case of adolescents). Therapists seek to engage families in applying the behavioral strategies taught in sessions and in acquiring new skills to improve the home environment. Patients are encouraged to develop behavioral goals for preventing substance use and HIV infection, which are anchored to a contingency management system. Substance-abusing parents are prompted to set goals related to effective parenting behaviors. During each session, the behavioral goals are reviewed, with rewards provided by significant others when goals are accomplished. Patients participate in treatment planning, choosing specific interventions from a menu of evidence-based treatment options. In a series of comparisons involving adolescents with and without conduct disorder, FBT was found to be more effective than supportive counseling.

Further Reading:


Behavioral Therapies Primarily for Adolescents

Drug-abusing and addicted adolescents have unique treatment needs. Research has shown that treatments designed for and tested in adult populations often need to be modified to be effective in adolescents. Family involvement is a particularly important component for interventions targeting youth. Below are examples of behavioral interventions that employ these principles and have shown efficacy for treating addiction in youth.

Multisystemic Therapy

Multisystemic Therapy (MST) addresses the factors associated with serious antisocial behavior in children and adolescents who abuse alcohol and other drugs. These factors include characteristics of the child or adolescent (e.g., favorable attitudes toward drug use), the family (poor discipline, family conflict, parental drug abuse), peers (positive attitudes toward drug use), school (dropout, poor performance), and neighborhood (criminal subculture).

By participating in intensive treatment in natural environments (homes, schools, and neighborhood settings), most youths and families complete a full course of treatment. MST significantly reduces adolescent drug use during treatment and for at least 6 months after treatment. Fewer incarcerations and out-of-home juvenile placements offset the cost of providing this intensive service and maintaining the clinicians' low caseloads.

Further Reading:


Multidimensional Family Therapy

Multidimensional Family Therapy (MDFT) for adolescents is an outpatient, family-based treatment for teenagers who abuse alcohol or other drugs. MDFT views adolescent drug use in terms of a network of influences (individual, family, peer, community) and suggests that reducing unwanted behavior and increasing desirable behavior occur in multiple ways in different settings. Treatment includes individual and family sessions held in the clinic, in the home, or with family members at the family court, school, or other community locations.

During individual sessions, the therapist and adolescent work on important developmental tasks, such as developing decision-making, negotiation, and problem-solving skills. Teenagers acquire vocational skills and
skills in communicating their thoughts and feelings to deal better with life stressors. Parallel sessions are held with family members. Parents examine their particular parenting styles, learning to distinguish influence from control and to have a positive and developmentally appropriate influence on their children.

Further Reading:


**Brief Strategic Family Therapy**

Brief Strategic Family Therapy (BSFT) targets family interactions that are thought to maintain or exacerbate adolescent drug abuse and other co-occurring problem behaviors. Such problem behaviors include conduct problems at home and at school, oppositional behavior, delinquency, associating with antisocial peers, aggressive and violent behavior, and risky sexual behavior. BSFT is based on a family systems approach to treatment, in which family members’ behaviors are assumed to be interdependent such that the symptoms of one member (the drug-abusing adolescent, for example) are indicative, at least in part, of what else is occurring in the family system. The role of the BSFT counselor is to identify the patterns of family interaction that are associated with the adolescent’s behavior problems and to assist in changing those problem-maintaining family patterns. BSFT is meant to be a flexible approach that can be adapted to a broad range of family situations in various settings (mental health clinics, drug abuse treatment programs, other social service settings, and families’ homes) and in various treatment modalities (as a primary outpatient intervention, in combination with residential or day treatment, and as an aftercare/continuing-care service following residential treatment).

Further Reading:


**Functional Family Therapy**

Functional Family Therapy (FFT) is another treatment based on a family systems approach, in which an adolescent’s behavior problems are seen as being created or maintained by a family’s dysfunctional interaction patterns. FFT aims to reduce problem behaviors by improving communication, problem-solving, conflict resolution, and parenting skills. The intervention always includes the adolescent and at least one family member in each session. Principal treatment tactics include (1) engaging families in the treatment process and enhancing their motivation for change and (2) bringing about changes in family members’ behavior using contingency management techniques, communication and problem-solving, behavioral contracts, and other behavioral interventions.

**Further Reading:**


**Adolescent Community Reinforcement Approach and Assertive Continuing Care**

The Adolescent Community Reinforcement Approach (A-CRA) is another comprehensive substance abuse treatment intervention that involves the adolescent and his or her family. It seeks to support the individual’s recovery by increasing family, social, and educational/vocational reinforcers. After assessing the adolescent’s needs and levels of functioning, the therapist chooses from among 17 A-CRA procedures to address problem-solving, coping, and communication skills and to encourage active participation in positive social and recreational activities. A-CRA skills training involves role-playing and behavioral rehearsal.

Assertive Continuing Care (ACC) is a home-based continuing-care approach to preventing relapse. Weekly home visits take place over a 12- to 14-week period after an adolescent is discharged from residential, intensive outpatient, or regular outpatient treatment. Using positive and negative reinforcement to shape behaviors, along with training in problem-solving and communication skills, ACC combines A-CRA and assertive case management services (e.g., use of a multidisciplinary team of professionals, round-the-clock coverage, assertive outreach) to help adolescents and their caregivers acquire the skills to engage in positive social activities.
Further Reading:


**National Agencies**

The National Institute on Drug Abuse (NIDA) leads the Nation in scientific research on the health aspects of drug abuse and addiction. It supports and conducts research across a broad range of disciplines, including genetics, functional neuroimaging, social neuroscience, prevention, medication and behavioral therapies, and health services. It then disseminates the results of that research to significantly improve prevention and treatment and to inform policy as it relates to drug abuse and addiction. Additional information is available at [drugabuse.gov](http://drugabuse.gov) or by calling 301-443-1124.

**National Institute on Alcohol Abuse and Alcoholism (NIAAA)**

The National Institute on Alcohol Abuse and Alcoholism (NIAAA) provides leadership in the national effort to reduce alcohol-related problems by conducting and supporting research in a wide range of scientific areas, including genetics, neuroscience, epidemiology, health risks and benefits of alcohol consumption, prevention, and treatment; coordinating and collaborating with other research institutes and Federal programs on alcohol-related issues; collaborating with international, national, State, and local institutions, organizations, agencies, and programs engaged in alcohol-related work; and translating and disseminating research findings to healthcare providers, researchers, policymakers, and the public. Additional information is available at [niaaa.nih.gov](http://niaaa.nih.gov) or by calling 301-443-3860.
Selected Publications and Resources for Drug Addiction Treatment

The following are available from the NIDA DrugPubs Research Dissemination Center, the National Technical Information Service (NTIS), or the Government Printing Office (GPO). To order, refer to the DrugPubs (877-NIDANIH [643-2644]), NTIS (1-800-553-6847), or GPO (202-512-1800) number provided with the resource description:

**Blending products.** NIDA’s Blending Initiative—a joint venture with SAMHSA and its nationwide network of Addiction Technology Transfer Centers (ATTCs)—uses “Blending Teams” of community practitioners, SAMHSA trainers, and NIDA researchers to create products and devise strategic dissemination plans for them. Completed products include those that address the value of buprenorphine therapy and onsite rapid HIV testing in community treatment programs; strategies for treating prescription opioid dependence; and the need to enhance healthcare workers’ proficiency in using tools such as the Addiction Severity Index (ASI), motivational interviewing, and motivational incentives. For more information on Blending products, please visit NIDA’s Web site at drugabuse.gov/blending-initiative.

**Addiction Severity Index.** Provides a structured clinical interview designed to collect information about substance use and functioning in life areas from adult clients seeking drug abuse treatment. For more information on using the ASI and to obtain copies of the most recent edition, please visit triweb.tresearch.org/index.php/tools/download-asi-instruments-manuals/.

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**National Institute of Mental Health (NIMH)**

The mission of the National Institute of Mental Health (NIMH) is to transform the understanding and treatment of mental illnesses through basic and clinical research, paving the way for prevention, recovery, and cure. In support of this mission, NIMH generates research and promotes research training to fulfill the following four objectives: (1) promote discovery in the brain and behavioral sciences to fuel research on the causes of mental disorders; (2) chart mental illness trajectories to determine when, where, and how to intervene; (3) develop new and better interventions that incorporate the diverse needs and circumstances of people with mental illnesses; and (4) strengthen the public health impact of NIMH-supported research. Additional information is available at nimh.nih.gov or by calling 301-443-4513.

**Center for Substance Abuse Treatment (CSAT)**

The Center for Substance Abuse Treatment (CSAT), a part of the Substance Abuse and Mental Health Services Administration (SAMHSA), is responsible for supporting treatment services through a block grant program, as well as disseminating findings to the field and promoting their adoption. CSAT also operates the 24-hour National Treatment Referral Hotline (1-800-662-HELP), which offers information and referral services to people seeking treatment programs and other assistance. CSAT publications are available through SAMHSA’s Store (store.samhsa.gov). Additional information about CSAT can be found on SAMHSA’s Web site at samhsa.gov/about/csat.aspx.


Alcohol Alert (published by NIAAA). This is a quarterly bulletin that disseminates important research findings on alcohol abuse and alcoholism. Available online at niaaa.nih.gov/publications/journals-and-reports/alcohol-alert.


Research Report Series: Therapeutic Community (2002). This report provides information on the role of residential drug-free settings and their role in the treatment process. NIH Publication #02-4877. Available online at drugabuse.gov/publications/research-reports/therapeutic-community.
Initiatives Designed to Move Treatment Research into Practice

Clinical Trials Network

Assessing the real-world effectiveness of evidence-based treatments is a crucial step in bringing research to practice. Established in 1999, NIDA’s National Drug Abuse Treatment Clinical Trials Network (CTN) uses community settings with diverse patient populations and conditions to adjust and test protocols to meet the practical needs of addiction treatment. Since its inception, the CTN has tested pharmacological and behavioral interventions for drug abuse and addiction, along with common co-occurring conditions (e.g., HIV and PTSD) among various target populations, including adolescent drug abusers, pregnant drug-abusing women, and Spanish-speaking patients. The CTN has also tested prevention strategies in drug-abusing groups at high risk for HCV and HIV and has become a key element of NIDA’s multipronged approach to move promising science-based drug addiction treatments rapidly into community settings. For more information on the CTN, please visit drugabuse.gov/CTN/Index.htm.

Criminal Justice–Drug Abuse Treatment Studies

NIDA is taking an approach similar to the CTN to enhance treatment for drug-addicted individuals involved with the criminal justice system through Criminal Justice–Drug Abuse Treatment Studies (CJ-DATS). Whereas NIDA’s CTN has as its overriding mission the improvement of the quality of drug abuse treatment by moving innovative approaches into the larger community, research supported through CJ-DATS is designed to effect change by bringing new treatment models into the criminal justice system and thereby improve outcomes for offenders with substance use disorders. It seeks to achieve better integration of drug abuse treatment with other public health and public safety forums and represents a collaboration among NIDA; SAMHSA; the Centers for Disease Control and Prevention (CDC); Department of Justice agencies; and a host of drug treatment, criminal justice, and health and social service professionals.

Blending Teams

Another way in which NIDA is seeking to actively move science into practice is through a joint venture with SAMHSA and its nationwide network of Addiction Technology Transfer Centers (ATTCs). This process involves the collaborative efforts of community treatment practitioners, SAMHSA trainers, and NIDA researchers, some of whom form “Blending Teams” to create products and devise strategic dissemination plans for them. Through the creation of products designed to foster adoption of new treatment strategies, Blending Teams are instrumental in getting the latest evidence-based tools and practices into the hands of treatment professionals. To date, a number of products have been completed. Topics have included increasing awareness of the value of buprenorphine therapy and enhancing motivational interviewing, and motivational incentives. For more information on Blending products, please visit NIDA’s Web site at nida.nih.gov/blending.
Other Federal Resources

**NIDA DrugPubs Research Dissemination Center.** NIDA publications and treatment materials are available from this information source. Staff provide assistance in English and Spanish and have TTY/TDD capability. Phone: 877-NIDA-NIH (877-643-2644); TTY/TDD: 240-645-0228; fax: 240-645-0227; e-mail: drugpubs@nida.nih.gov; Web site: drugpubs.drugabuse.gov.

**The National Registry of Evidence-Based Programs and Practices.** This database of interventions for the prevention and treatment of mental and substance use disorders is maintained by SAMHSA and can be accessed at nrepp.samhsa.gov.

**SAMHSA's Store** has a wide range of products, including manuals, brochures, videos, and other publications. Phone: 800-487-4889; Web site: store.samhsa.gov.

**The National Institute of Justice.** As the research agency of the U.S. Department of Justice, the National Institute of Justice (NIJ) supports research, evaluation, and demonstration programs relating to drug abuse in the context of crime and the criminal justice system. For information, including a wealth of publications, contact the National Criminal Justice Reference Service at 800-851-3420 or 301-519-5500; or visit nij.gov.

**Clinical Trials.** For more information on federally and privately supported clinical trials, please visit clinicaltrials.gov.
ASAM
THE NATIONAL PRACTICE GUIDELINE
For the Use of Medications in the Treatment of Addiction Involving Opioid Use
National Practice Guideline for the Use of Medications in the Treatment of Addiction Involving Opioid Use

ASAM National Practice Guideline for the Use of Medications in the Treatment of Addiction Involving Opioid Use

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Association; others may be more familiar with the term “opioid use disorder,” as used in previous editions of the DSM.1

The American Society of Addiction Medicine defines addiction as “a primary, chronic disease of brain reward, motivation, memory, and related circuitry,” with a “dysfunction in these circuits” being reflected in “an individual pathologically pursuing reward and/or relief by substance use and other behaviors.” In this context, the preferred term by ASAM for this serious bio-psycho-social-spiritual illness would be “addiction involving opioid use.” ASAM views addiction as a fundamental neurological disorder of “brain reward, motivation, memory, and related circuitry,” and recognizes that there are unifying features in all cases of addiction, including substance-related addiction and nonsubstance-related addiction. It is clear that a variety of substances commonly associated with addiction work on specific receptors in the nervous system and on specific neurotransmitter systems. Specific pharmacological agents used in the

EXECUTIVE SUMMARY

Purpose
The American Society of Addiction Medicine (ASAM) developed this National Practice Guideline for the Use of Medications in the Treatment of Addiction Involving Opioid Use to provide information on evidence-based treatment of opioid use disorder. (Hereafter, in this document, this National Practice Guideline will be referred to as “Practice Guideline.”)

Background
Opioid use disorder is a chronic, relapsing disease, which has significant economic, personal, and public health consequences. Many readers of this Practice Guideline may recognize the term “opioid use disorder” as it is used in the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5), developed by the American Psychiatric Association; others may be more familiar with the term “opioid dependence,” as used in previous editions of the DSM.1
treatment of addiction exert their effects via their actions on specific receptors. Hence, the medications used in the treatment of addiction have specific efficacy based on their own molecular structure and the particular neurotransmitters affected by that medication. Medications developed for the treatment of addiction involving opioid use may have benefits in the treatment of addiction involving an individual’s use of other substances. For instance, naltrexone, which is approved by the US Food and Drug Administration (FDA) for the treatment of opioid dependence using DSM, 4th Edition (DSM-IV) terminology, is also US FDA-approved for the treatment of alcohol dependence as per the DSM-IV guidelines.2

The American Society of Addiction Medicine recognizes that research is yet to be done to confirm the specificity of its conceptualization of addiction as a medical and a psychiatric illness. Both the American Medical Association, as noted in various policy and position statements, and the International Classification of Diseases (ICD), recognize addiction as both a medical and a psychiatric disorder.3,4 ASAM encourages clinicians, researchers, educators, and policy makers to use the term “addiction” regardless of whether the patient’s condition at a given point in its natural history seems to more prominently involve opioid use, alcohol use, nicotine use, or engagement in addictive behaviors such as gambling. Given the widespread North American application of the DSM’s categorization of disorders, this Practice Guideline will, for the sake of brevity and convention, use the term “opioid use disorder.”

According to the 2013 National Survey on Drug Use and Health (NSDUH), 4.5 million individuals in the United States were current (past month), nonmedical users of prescription opioids. Nonmedical use of opioids and other prescription drugs constitute hazardous and risky behavior which should be discouraged, given the potential that unauthorized use of such substances has for harm (to the user). Medication therapy related to opioids focuses not only on nonmedical use but also on an attempt to treat the medical illness, addiction. The 2013 NSDUH further found that 1.9 million persons in America met DSM-IV criteria for opioid use disorder associated with their use of prescription opioids, and that more than 0.5 million additional individuals have met DSM-IV criteria for opioid use disorder associated with their use of heroin.5

Opioid use is associated with increased mortality. The leading causes of death in people using opioids for nonmedical purposes are overdose and trauma.6 The injection route use (intravenous or even intramuscular [IM]) of opioids or other drugs increases the risk of being exposed to HIV, viral hepatitis, and other infectious agents.

Scope of Guideline

This Practice Guideline was developed for the evaluation and treatment of opioid use disorder and for the management of opioid overdose. The medications covered in this guideline are mainly, but not exclusively, those that have been US FDA-approved for the treatment of opioid dependence, as defined in prior versions of the DSM, and not necessarily the most recent version of the manual, the DSM-5.7 DSM-5 combined the criteria for opioid abuse and opioid dependence from prior versions of the DSM in its new diagnosis of opioid use disorder; therefore, pharmacologic treatment may not be appropriate for all patients along the entire opioid use disorder continuum. In a study comparing opioid dependence from DSM-IV and opioid use disorder from DSM-5, optimal concordance occurred when four or more DSM-5 criteria were endorsed (ie, the DSM-5 threshold for moderate opioid use disorder).8 Other medications have been used off-label to treat opioid use disorder (clearly noted in the text); however, the Guideline Committee has not issued recommendations on the use of those medications. As a final note related to references to medications, whether US FDA-approved or off-label, cost and/or cost effectiveness were not considerations in the development of this Practice Guideline.

Intended Audience

This Practice Guideline is primarily intended for clinicians involved in evaluating patients and providing authorization for pharmacological treatments at any level. The intended audience falls into the broad groups of physicians; other healthcare providers (especially those with prescribing authority); medical educators and faculty for other healthcare professionals in training; and clinical care managers, including those offering utilization management services.

Qualifying Statement

This ASAM Practice Guideline is intended to aid clinicians in their clinical decision-making and patient management. The Practice Guideline strives to identify and define clinical decision-making junctures that meet the needs of most patients in most circumstances. Clinical decision-making should involve consideration of the quality and availability of expertise and services in the community wherein care is provided. In circumstances in which the Practice Guideline is being used as the basis for regulatory or payer decisions, improvement in quality of care should be the goal. Finally, prescribed courses of treatment contained in recommendations in this Practice Guideline are effective only if the recommendations, as outlined, are followed. Because lack of patient understanding and adherence may adversely affect outcomes, clinicians should make every effort to promote the patient’s understanding of, and adherence to, prescribed and recommended pharmacological and psychosocial treatments. Patients should be informed of the risks, benefits, and alternatives to a particular treatment, and should be an active party to shared decision-making whenever feasible. Recommendations in this Practice Guideline do not supersede any federal or state regulation.

Overview of Methodology

This Practice Guideline was developed using the RAND Corporation (RAND)/University of California, Los Angeles (UCLA) Appropriateness Method (RAM) – a process that combines scientific evidence and clinical knowledge to determine the appropriateness of a set of clinical procedures. The RAM is a deliberate approach encompassing review of existing guidelines, literature reviews, appropriateness ratings, necessity reviews, and document development. For this project, ASAM selected an independent committee to oversee guideline development, to participate in review of
Part 1: Assessment and Diagnosis of Opioid Use Disorder

Assessment Recommendations

(1) First clinical priority should be given to identifying and making appropriate referral for any urgent or emergent medical or psychiatric problem(s), including drug-related impairment or overdose.

(2) Completion of the patient’s medical history should include screening for concomitant medical conditions, including infectious diseases (hepatitis, HIV, and tuberculosis [TB]), acute trauma, and pregnancy.

(3) A physical examination should be completed as a component of the comprehensive assessment process. The prescriber (the clinician authorizing the use of a medication for the treatment of opioid use disorder) may conduct this physical examination him/herself, or, in accordance with the ASAM Standards, ensure that a current physical examination is contained within the patient medical record before a patient is started on a new medication for the treatment of his/her addiction.

(4) Initial laboratory testing should include a complete blood count, liver function tests, and tests for hepatitis C and HIV. Testing for TB and sexually transmitted infections should also be considered. Hepatitis B vaccination should be offered, if appropriate.

(5) The assessment of women presents special considerations regarding their reproductive health. Women of childbearing age should be tested for pregnancy, and all women of childbearing potential and age should be queried regarding methods of contraception, given the increase in fertility that results from effective opioid use disorder treatment.

(6) Patients being evaluated for addiction involving opioid use, and/or for possible medication use in the treatment of opioid use disorder, should undergo (or have completed) an assessment of mental health status and possible psychiatric disorders (as outlined in the ASAM Standards).

(7) Opioid use is often co-occurring with other substance-related disorders. An evaluation of past and current substance use and a determination of the totality of substances that surround the addiction should be conducted.

(8) The use of marijuana, stimulants, or other addictive drugs should not be a reason to suspend opioid use disorder treatment. However, evidence demonstrates that patients who are actively using substances during opioid use disorder treatment have a poorer prognosis. The use of benzodiazepines and other sedative hypnotics may be a reason to suspend agonist treatment because of safety concerns related to respiratory depression.

(9) A tobacco use query and counseling on cessation of tobacco products and electronic nicotine delivery devices should be completed routinely for all patients, including those who present for evaluation and treatment of opioid use disorder.

(10) An assessment of social and environmental factors should be conducted (as outlined in the ASAM Standards) to identify facilitators and barriers to addiction treatment, and specifically to pharmacotherapy. Before a decision is made to initiate a course of pharmacotherapy for the patient with opioid use disorder, the patient should receive a multidimensional assessment in fidelity with The ASAM Criteria: Treatment Criteria for Addictive, Substance-Related, and Co-occurring Conditions (the “ASAM Criteria”). Addiction should be considered a bio-psycho-social-spiritual illness, for which the use of medication(s) is but only one component of overall treatment.

Diagnosis Recommendations

(1) Other clinicians may diagnose opioid use disorder, but confirmation of the diagnosis by the provider with prescribing authority, and who recommends medication use, must be obtained before pharmacotherapy for opioid use disorder commences.

(2) Opioid use disorder is primarily diagnosed on the basis of the history provided by the patient and a comprehensive assessment that includes a physical examination.

(3) Validated clinical scales that measure withdrawal symptoms, for example, the Objective Opioid Withdrawal Scale (OOWS), the Subjective Opioid Withdrawal Scale (SOWS), and the Clinical Opioid Withdrawal Scale (COWS), may be used to assist in the evaluation of patients with opioid use disorder.

(4) Urine drug testing during the comprehensive assessment process, and frequently during treatment, is recommended. The frequency of drug testing is determined by a number of factors including the stability of the patient, the type of treatment, and the treatment setting.

Part 2: Treatment Options

(1) The choice of available treatment options for addiction involving opioid use should be a shared decision between clinician and patient.

(2) Clinicians should consider the patient’s preferences, past treatment history, and treatment setting when deciding between the use of methadone, buprenorphine, and naltrexone in the treatment of addiction involving opioid use. The treatment setting described as level 1 treatment in the
ASAM Criteria may be a general outpatient location such as a clinician’s practice site. The setting described as level 2 in the ASAM Criteria may be an intensive outpatient treatment or partial hospitalization program housed in a specialty addiction treatment facility, a community mental health center, or another setting. The ASAM Criteria describes level 3 or level 4 treatment, respectively, as a residential addiction treatment facility or hospital.

(3) The venue in which treatment is provided is as important as the specific medication selected. Opioid treatment programs (OTPs) offer daily supervised dosing of methadone, and increasingly of buprenorphine. In accordance with the Federal law (21 CFR §1306.07), office-based opioid treatment (OBOT), which provides medication on a prescribed weekly or monthly basis, is limited to buprenorphine. Naltrexone can be prescribed in any setting by any clinician with the authority to prescribe any medication. Clinicians should consider a patient’s psychosocial situation, co-occurring disorders, and risk of diversion when determining whether OTP or OBOT is most appropriate.

(4) OBOT may not be suitable for patients with active alcohol use disorder or sedative, hypnotic, or anxiolytic use disorder (or who are in the treatment of addiction involving the use of alcohol or other sedative drugs, including benzodiazepines or benzodiazepine receptor agonists). It may also be unsuitable for persons who are regularly using alcohol or other sedatives, but do not have addiction or a specific substance use disorder related to that class of drugs. The prescribing of benzodiazepines or other sedative-hypnotics should be used with extreme caution in patients who are prescribed methadone or buprenorphine for the treatment of an opioid use disorder.

(5) Methadone is recommended for patients who may benefit from daily dosing and supervision in an OTP, or for patients for whom buprenorphine for the treatment of opioid use disorder has been used unsuccessfully in an OTP or OBOT setting.

(6) Oral naltrexone for the treatment of opioid use disorder is often adversely affected by poor medication adherence. Clinicians should reserve its use for patients who would be able to comply with special techniques to enhance their adherence, for example, observed dosing. Extended-release injectable naltrexone reduces, but does not eliminate, issues with medication adherence.

**Part 3: Treating Opioid Withdrawal**

(1) Using medications for opioid withdrawal management is recommended over abrupt cessation of opioids. Abrupt cessation of opioids may lead to strong cravings, which can lead to continued use.

(2) Patients should be advised about risk of relapse and other safety concerns from using opioid withdrawal management as standalone treatment for opioid use disorder. Opioid withdrawal management on its own is not a treatment method.

(3) Assessment of a patient undergoing opioid withdrawal management should include a thorough medical history and physical examination, focusing on signs and symptoms associated with opioid withdrawal.

(4) Opioid withdrawal management in cases in which methadone is used to manage withdrawal symptoms must be done in an inpatient setting or in an OTP. For short-acting opioids, tapering schedules that decrease in daily doses of prescribed methadone should begin with doses between 20 and 30 mg per day, and should be completed within 6–10 days.

(5) Opioid withdrawal management in cases in which buprenorphine is used to manage withdrawal symptoms should not be initiated until 12–18 hours after the last dose of a short-acting agonist such as heroin or oxycodone, and 24–48 hours after the last dose of a long-acting agonist such as methadone. A dose of buprenorphine sufficient to suppress withdrawal symptoms is given (this can be 4–16 mg per day) and then the dose is tapered. The duration of the tapering schedule can be as brief as 3–5 days or as long as 30 days or more.

(6) The use of combinations of buprenorphine and low doses of oral naltrexone to manage withdrawal and facilitate the accelerated introduction of extended-release injectable naltrexone has shown promise. More research will be needed before this can be accepted as standard practice.

(7) The Guideline Committee recommends, based on consensus opinion, the inclusion of clonidine as a practice to support opioid withdrawal. Clonidine is not US FDA-approved for the treatment of opioid withdrawal, but it has been extensively used off-label for this purpose. Clonidine may be used orally or transdermally at doses of 0.1–0.3 mg every 6–8 hours, with a maximum dose of 1.2 mg daily, to assist in the management of opioid withdrawal symptoms. Its hypotensive effects often limit the amount that can be used. Clonidine can be combined with other non-narcotic medications targeting specific opioid withdrawal symptoms such as benzodiazepines for anxiety, loperamide for diarrhea, acetaminophen or non-steroidal anti-inflammatory medications (NSAIDs) for pain, and ondansetron or other agents for nausea.

(8) Opioid withdrawal management using anesthesia UROD is not recommended due to high risk for adverse events or death. Naltrexone-facilitated opioid withdrawal management can be a safe and effective approach, but should be used only by clinicians experienced with this clinical method, and in cases in which anesthesia or conscious sedation are not being employed.

**Part 4: Methadone**

(1) Methadone is a treatment option recommended for patients who are physiologically dependent on opioids, able to give informed consent, and who have no specific contraindications for agonist treatment when it is prescribed in the context of an appropriate plan that includes psychosocial intervention.

(2) The recommended initial dose for methadone ranges from 10 to 30 mg, with reassessment in 3–4 hours, and a second dose not to exceed 10 mg on the first day if withdrawal symptoms are persisting.

(3) The usual daily dosage of methadone ranges from 60 to 120 mg. Some patients may respond to lower doses and some patients may need higher doses. Dosage increases...
Part 5: Buprenorphine

(1) Opioid-dependent patients should wait until they are experiencing mild to moderate opioid withdrawal before taking the first dose of buprenorphine to reduce the risk of precipitated withdrawal. Generally, buprenorphine initiation should occur at least 6–12 hours after the last use of heroin or other short-acting opioids, or 24–72 hours after their last use of long-acting opioids such as methadone.

(2) Induction of buprenorphine should start with a dose of 2–4 mg. Dosages may be increased in increments of 2–4 mg.

(3) Clinicians should observe patients in their offices during induction. Emerging research, however, suggests that many patients need “not” be observed and that home buprenorphine induction may be considered. Home-based induction is recommended only if the patient or prescribing physician is experienced with the use of buprenorphine. This is based on the consensus opinion of the Guideline Committee.

(4) Buprenorphine doses after induction and titration should be, on average, at least 8 mg per day. However, if patients are continuing to use opioids, consideration should be given to increasing the dose by 4–8 mg (daily doses of 12–16 mg or higher). The US FDA approves dosing to a limit of 24 mg per day, and there is limited evidence regarding the relative efficacy of higher doses. In addition, the use of higher doses may increase the risk of diversion.

(5) Psychosocial treatment should be implemented in conjunction with the use of buprenorphine in the treatment of opioid use disorder.

(6) Clinicians should take steps to reduce the chance of buprenorphine diversion. Recommended strategies include frequent office visits (weekly in early treatment), urine drug testing, including testing for buprenorphine and metabolites, and recall visits for pill counts.

(7) Patients should be tested frequently for buprenorphine, other substances, and prescription medications. Accessing Prescription Drug Monitoring Program (PDMP) data may be useful for monitoring.

(8) Patients should be seen frequently at the beginning of their treatment. Weekly visits (at least) are recommended until patients are determined to be stable. There is no recommended time limit for treatment.

(9) Buprenorphine taper and discontinuation is a slow process and close monitoring is recommended. Buprenorphine tapering is generally accomplished over several months. Patients should be encouraged to remain in treatment for ongoing monitoring past the point of discontinuation.

(10) When considering a switch from buprenorphine to naltrexone, 7–14 days should elapse between the last dose of buprenorphine and the start of naltrexone to ensure that the patient is not physically dependent on opioids before starting naltrexone.

(11) When considering a switch from buprenorphine to methadone, there is no required time delay because the addition of a full mu-opioid agonist to a partial agonist does not typically result in any type of adverse reaction.

(12) Patients who discontinue agonist therapy with methadone or buprenorphine and then resume opioid use should be made aware of the risks associated with opioid overdose, and especially the increased risk of death.

Part 6: Naltrexone

(1) Naltrexone is a recommended treatment in preventing relapse in opioid use disorder. Oral formula naltrexone may be considered for patients in whom adherence can be supervised or enforced. Extended-release injectable naltrexone may be more suitable for patients who have issues with adherence.
(2) Oral naltrexone should be taken daily in 50-mg doses, or three times weekly in two 100-mg doses followed by one 150-mg dose.
(3) Extended-release injectable naltrexone should be administered every 4 weeks by deep IM injection in the gluteal muscle at a set dosage of 380 mg per injection.
(4) Psychosocial treatment is recommended in conjunction with treatment with naltrexone. The efficacy of naltrexone use in conjunction with psychosocial treatment has been established, whereas the efficacy of extended-release injectable naltrexone without psychosocial treatment "has not" been established.
(5) There is no recommended length of treatment with oral naltrexone or extended-release injectable naltrexone. Duration depends on clinical judgment and the patient’s individual circumstances. Because there is no physical dependence associated with naltrexone, it can be stopped abruptly without withdrawal symptoms.
(6) Switching from naltrexone to methadone or buprenorphine should be planned, considered, and monitored. Switching from an antagonist such as naltrexone to a full agonist (methadone) or a partial agonist (buprenorphine) is generally less complicated than switching from a full or partial agonist to an antagonist because there is no physical dependence associated with antagonist treatment and thus no possibility of precipitated withdrawal. Patients being switched from naltrexone to buprenorphine or methadone will not have physical dependence on opioids and thus the initial doses of methadone or buprenorphine used should be low. Patients should not be switched until a significant amount of the naltrexone is no longer in their system, about 1 day for oral naltrexone or 30 days for extended-release injectable naltrexone.
(7) Patients who discontinue antagonist therapy and resume opioid use should be made aware of the increased risks associated with an opioid overdose, and especially the increased risk of death.

Part 7: Psychosocial Treatment in Conjunction With Medications for the Treatment of Opioid Use Disorder

(1) Psychosocial treatment is recommended in conjunction with any pharmacological treatment of opioid use disorder. At a minimum, psychosocial treatment should include the following: psychosocial needs assessment, supportive counseling, links to existing family supports, and referrals to community services.
(2) Treatment planning should include collaboration with qualified behavioral healthcare providers to determine the optimal type and intensity of psychosocial treatment and for renegotiation of the treatment plan for circumstances in which patients do not adhere to recommended plans for, or referrals to, psychosocial treatment.
(3) Psychosocial treatment is generally recommended for patients who are receiving opioid agonist treatment (methadone or buprenorphine).
(4) Psychosocial treatment should be offered with oral and extended-release injectable naltrexone. The efficacy of extended-release injectable naltrexone to treat opioid use disorder has not been confirmed when it has been used as pharmacotherapy without accompanying psychosocial treatment.

Part 8: Special Populations: Pregnant Women

(1) The first priority in evaluating pregnant women for opioid use disorder should be to identify emergent or urgent medical conditions that require immediate referral for clinical evaluation.
(2) A medical examination and psychosocial assessment is recommended when evaluating pregnant women for opioid use disorder.
(3) Obstetricians and gynecologists should be alert to signs and symptoms of opioid use disorder. Pregnant women with opioid use disorder are more likely to seek prenatal care late in pregnancy, miss appointments, experience poor weight gain, or exhibit signs of withdrawal or intoxication.
(4) Psychosocial treatment is recommended in the treatment of pregnant women with opioid use disorder.
(5) Counseling and testing for HIV should be provided in accordance with state law. Tests for hepatitis B and C and liver function are also suggested. Hepatitis A and B vaccination is recommended for those whose hepatitis serology is negative.
(6) Urine drug testing may be used to detect or confirm suspected opioid and other drug use with informed consent from the mother, realizing that there may be adverse legal and social consequences of her use. State laws differ on reporting substance use during pregnancy. Laws that penalize women for use and for obtaining treatment serve to prevent women from obtaining prenatal care and worsen outcomes.
(7) Pregnant women who are physically dependent on opioids should receive treatment using methadone or buprenorphine monoproduct rather than withdrawal management or abstinence.
(8) Care for pregnant women with opioid use disorder should be comanaged by an obstetrician and an addiction specialist physician. Release of information forms need to be completed to ensure communication among healthcare providers.
(9) Treatment with methadone should be initiated as early as possible during pregnancy.
(10) Hospitalization during initiation of methadone and treatment with buprenorphine may be advisable due to the potential for adverse events, especially in the third trimester.
(11) In an inpatient setting, methadone should be initiated at a dose range of 20–30 mg. Incremental doses of 5–10 mg are given every 3–6 hours, as needed, to treat withdrawal symptoms.
(12) After induction, clinicians should increase the methadone dose in 5–10-mg increments per week. The goal is to maintain the lowest dose that controls withdrawal symptoms and minimizes the desire to use additional opioids.
(13) Twice daily dosing is more effective and has fewer side effects than single dosing, but may not be practical because methadone is typically dispensed in an outpatient clinic.
(14) Clinicians should be aware that the pharmacokinetics of methadone are affected by pregnancy. With advancing gestational age, plasma levels of methadone progressively decrease and clearance increases. Increased or split doses may be needed as pregnancy progresses. After child birth, doses may need to be adjusted.
(15) Buprenorphine monoproduct is a reasonable and recommended alternative to methadone for pregnant women. Whereas there is evidence of safety, there is insufficient evidence to recommend the combination buprenorphine/naloxone formulation.
(16) If a woman becomes pregnant while she is receiving naltrexone, it is appropriate to discontinue the medication if the patient and doctor agree that the risk of relapse is low. If the patient is highly concerned about relapse and wishes to continue naltrexone, she should be informed about the risks of staying on naltrexone and provide her consent for ongoing treatment. If the patient wishes to discontinue naltrexone, but then reports relapse to opioid use, it may be appropriate to consider treatment with methadone or treatment with buprenorphine.
(17) Naloxone is not recommended for use in pregnant women with opioid use disorder except in situations of life-threatening overdose.
(18) Mothers receiving methadone and buprenorphine monoproduct for the treatment of opioid use disorders should be encouraged to breastfeed.

Part 9: Special Populations: Individuals With Pain
(1) For all patients with pain, it is important that the correct diagnosis be made and that a target suitable for treatment is identified.
(2) If pharmacological treatment is considered, non-narcotic medications such as acetaminophen and NSAIDs should be tried first.
(3) Opioid agonists (methadone or buprenorphine) should be considered for patients with active opioid use disorder who are not under treatment.
(4) Pharmacotherapy in conjunction with psychosocial treatment should be considered for patients with pain who have opioid use disorder.
(5) Patients on methadone for the treatment of opioid use disorder will require doses of opioids in addition to their regular daily dose of methadone to manage acute pain.
(6) Patients on methadone for the treatment of opioid use disorder and who are admitted for surgery may require additional short-acting opioid pain relievers. The dose of pain relievers prescribed may be higher due to tolerance.
(7) Temporarily increasing buprenorphine dosing may be effective for mild acute pain.
(8) For severe acute pain, discontinuing buprenorphine and commencing on a high-potency opioid (such as fentanyl) is advisable. Patients should be monitored closely and additional interventions such as regional anesthesia should also be considered.
(9) The decision to discontinue buprenorphine before an elective surgery should be made in consultation with the attending surgeon and anesthesiologist. If it is decided that buprenorphine should be discontinued before surgery, this should occur 24–36 hours in advance of surgery and restarted postoperatively when the need for full opioid agonist analgesia has passed.
(10) Patients on naltrexone will not respond to opioid analgesics in the usual manner. Therefore, it is recommended that mild pain be treated with NSAIDs, and moderate to severe pain be treated with ketorolac on a short-term basis.
(11) Oral naltrexone should be discontinued 72 hours before surgery and extended-release injectable naltrexone should be discontinued 30 days before an anticipated surgery.

Part 10: Special Populations: Adolescents
(1) Clinicians should consider treating adolescents who have opioid use disorder using the full range of treatment options, including pharmacotherapy.
(2) Opioid agonists (methadone and buprenorphine) and antagonists (naltrexone) may be considered for treatment of opioid use disorder in adolescents. Age is a consideration in treatment, and Federal laws and US FDA approvals need to be considered for patients under age 18.
(3) Psychosocial treatment is recommended in the treatment of adolescents with opioid use disorder.
(4) Concurrent practices to reduce infection (eg, sexual risk reduction interventions) are recommended as components of comprehensive treatment for the prevention of sexually transmitted infections and blood-borne viruses.
(5) Adolescents may benefit from treatment in specialized treatment facilities that provide multidimensional services.

Part 11: Special Populations: Individuals With Co-occurring Psychiatric Disorders
(1) A comprehensive assessment including determination of mental health status should evaluate whether the patient is stable. Patients with suicidal or homicidal ideation should be referred immediately for treatment and possibly hospitalization.
(2) Management of patients at risk for suicide should include: reducing immediate risk; managing underlying factors associated with suicidal intent; and monitoring and follow-up.
(3) All patients with psychiatric disorders should be asked about suicidal ideation and behavior. Patients with a history of suicidal ideation or attempts should have opioid use disorder, and psychiatric medication use, monitored.
(4) Assessment for psychiatric disorder should occur at the onset of agonist or antagonist treatment. Reassessment using a detailed mental status examination should occur after stabilization with methadone, buprenorphine, or naltrexone.
(5) Pharmacotherapy in conjunction with psychosocial treatment should be considered for patients with opioid use disorder and a co-occurring psychiatric disorder.
(6) Clinicians should be aware of potential interactions between medications used to treat co-occurring psychiatric conditions and opioid use disorder.
(7) Assertive community treatment should be considered for patients with co-occurring schizophrenia and opioid use disorder who have a recent history of, or are at risk of, repeated hospitalization or homelessness.

Part 12: Special Populations: Individuals in the Criminal Justice System

(1) Pharmacotherapy for the continued treatment of opioid use disorders, or the initiation of pharmacotherapy, has been shown to be effective and is recommended for prisoners and parolees regardless of the length of their sentenced term.

(2) Individuals with opioid use disorder who are within the criminal justice system should be treated with some type of pharmacotherapy in addition to psychosocial treatment.

(3) Opioid agonists (methadone and buprenorphine) and antagonists (naloxone) may be considered for treatment. There is insufficient evidence to recommend any one treatment as superior to another for prisoners or parolees.

(4) Pharmacotherapy should be initiated a minimum of 30 days before release from prison.

Part 13: Naloxone for the Treatment of Opioid Overdose

(1) Naloxone should be given in case of opioid overdose.

(2) Naloxone can and should be administered to pregnant women in cases of overdose to save the mother’s life.

(3) The Guideline Committee, based on consensus opinion, recommends that patients who are being treated for opioid use disorder and their family members/significant others be given prescriptions for naloxone. Patients and family members/significant others should be trained in the use of naloxone in overdose.

(4) The Guideline Committee, based on consensus opinion, recommends that first responders such as emergency medical services personnel, police officers, and firefighters be trained in and authorized to administer naloxone.

Abbreviations and Acronyms

AA Alcoholics Anonymous
ACT Assertive Community Treatment
AIDS Acquired Immunodeficiency Syndrome
ASAM American Society of Addiction Medicine
CBT Cognitive Behavioral Therapy
CDC Centers for Disease Control
COWS Clinical Opioid Withdrawal Scale
DEA Drug Enforcement Agency
DSM-III Diagnostic and Statistical Manual of Mental Disorders, 3rd Edition
DSM-IV Diagnostic and Statistical Manual of Mental Disorders, 4th Edition
DSM-5 Diagnostic and Statistical Manual of Mental Disorders, 5th Edition
ECG Electrocardiogram
EMS Emergency Medical Services
FDA Food and Drug Administration
HBV Hepatitis B Virus
HCV Hepatitis C Virus
HIV Human Immunodeficiency Virus
IDU Injection Drug Use
IM Intramuscular
IV Intravenous
NA Narcotics Anonymous
NAS Neonatal Abstinence Syndrome
NSAIDs Nonsteroidal Anti-inflammatory Drugs
NSDUH National Survey on Drug Use and Health
OBOT Office-Based Opioid Treatment
OOWS Objective Opioid Withdrawal Scale
OTP Opioid Treatment Program
PMDP Prescription Drug Monitoring Program
RCT Randomized Clinical Trial
RAM RAND/UCLA Appropriateness Method
SAMHSA Substance Abuse and Mental Health Services Administration
SMART Self-Management and Recovery Therapy
SOWS Subjective Opioid Withdrawal Scale
TB Tuberculosis
UROD Ultrarapid Opioid Detoxification

National Practice Guideline Glossary

Abstinence: Intentional and consistent restraint from the pathological pursuit of reward and/or relief that involves the use of substances and other behaviors. These behaviors may involve, but are not necessarily limited to, gambling, video gaming, spending, compulsive eating, compulsive exercise, or compulsive sexual behaviors.

Abuse: This term is not recommended for use in clinical or research contexts. Harmful use of a specific psychoactive substance. When used to mean “substance abuse,” this term also applies to one category of psychoactive substance-related disorders in previous editions of the Diagnostic and Statistical Manual of Mental Disorders (DSM). While recognizing that “abuse” is part of past diagnostic terminology, ASAM recommends that an alternative term be found for this purpose because of the pejorative connotations of the word “abuse.”

Addiction: Addiction is a primary, chronic disease of brain reward, motivation, memory, and related circuitry. Dysfunction in these circuits leads to characteristic biological, psychological, social, and spiritual manifestations. This is reflected in an individual pathologically pursuing reward and/or relief by substance use and other behaviors.

Addiction is characterized by inability to consistently abstain, impairment in behavior control, cravings, diminished recognition of significant problems with one’s behaviors and interpersonal relationships, and a dysfunctional emotional response. Like other chronic diseases, addiction often involves cycles of relapse and remission. Without treatment or engagement in recovery activities, addiction is progressive and can result in disability or premature death.

Addiction specialist physician: Addiction specialist physicians include addiction medicine physicians and addiction psychiatrists who hold either a board certification in addiction medicine from the American Board of Addiction Medicine, a subspecialty board certification in addiction psychiatry from the American Board of Psychiatry and Neurology, a subspecialty board certification in addiction medicine from the American Osteopathic Association, or
certification in addiction medicine from the American Society of Addiction Medicine.

**Adherence (see also compliance):** To “adhere” is “to cling, cleave (to be steadfast, hold fast), to stick fast” (Webster’s Dictionary). Adherence is a term that health professionals have been using increasingly to replace the term “compliance.” Both terms have been used, sometimes interchangeably, to refer to how closely patients cooperate with, follow, and take personal responsibility for the implementation of their treatment plans. The terms are often used with the more narrow sense of how well patients accomplish the goal of persistently taking medications, and also refer more broadly to all components of treatment. Assessment of patients’ efforts to accomplish the goals of a treatment plan is essential to treatment success. These efforts occur along a complex spectrum from independent proactive commitment, to mentored collaboration, to passive cooperation, to reluctant partial agreement, to active resistance, and to full refusal. Attempts to understand factors that promote or inhibit adherence/compliance must take into account behaviors, attitudes, willingness, and varying degrees of capacity and autonomy. The term “adherence” emphasizes the patient’s collaboration and participation in treatment. It contributes to a greater focus on motivational enhancement approaches that engage and empower patients.

**Adolescence:** The American Academy of Pediatrics categorizes adolescence as the totality of three developmental stages – puberty to adulthood – which occur generally between 11 and 21 years of age.

**Agonist medication:** See Opioid Agonist Medication.

**Antagonist medication:** See Opioid Antagonist Medication.

**ASAM Criteria dimensions:** The ASAM Patient Placement Criteria use six dimensions to create a holistic biopsychosocial assessment of an individual to be used for service planning and treatment. Dimension one is acute intoxication or withdrawal potential. Dimension two is biomedical conditions and dimensions. Dimension three is emotional, behavioral, or cognitive conditions or complications. Dimension four is readiness for change. Dimension five is continued use or continued problem potential. Dimension six is recovery/living environment.

**Assertive community treatment:** An evidence-based, outreach-oriented, service delivery model for people with severe and persistent mental illnesses that uses a team-based model to provide comprehensive and flexible treatment.

**Clinician:** A health professional, such as a physician, psychiatrist, psychologist, or nurse, involved in clinical practice, as distinguished from one specializing in research.

**Cognitive behavioral therapy:** An evidence-based psychosocial intervention that seeks to modify harmful beliefs and maladaptive behaviors, and help patients recognize, avoid, and cope with the situations in which they are most likely to misuse drugs.

**Co-occurring disorders:** Concurrent substance use and mental disorders. Other terms used to describe co-occurring disorders include “dual diagnosis,” “dual disorders,” “mentally ill chemically addicted” (MICA), “chemically addicted mentally ill” (CAMI), “mentally ill substance abusers” (MISA), “mentally ill chemically dependent” (MICD), “concurrent disorders,” “coexisting disorders,” “comorbid disorders,” and “individuals with co-occurring psychiatric and substance symptomatology” (ICOPSS). Use of the term carries no implication as to which disorder is primary and which secondary, which disorder occurred first, or whether one disorder caused the other.

**Compliance:** See also Adherence. “To comply” is “to act in accordance with another’s wishes, or with rules and regulations” (Webster’s Dictionary). The term “compliance” is falling into disuse because patient engagement and responsibility to change is a goal beyond passive compliance. Given the importance of shared decision-making to improve collaboration and outcomes, patients are encouraged to actively participate in treatment decisions and take responsibility for their treatment, rather than to passively comply.

**Concomitant conditions:** Medical conditions (eg, HIV, cardiovascular disease) and/or psychiatric conditions (eg, depression, schizophrenia) that occur along with a substance use disorder.

**Contingency management:** An evidence-based psychosocial intervention in which patients are given tangible rewards to reinforce positive behaviors such as abstinence. Also referred to as motivational incentives.

**Dependence:** Used in three different ways: physical dependence is a state of adaptation that is manifested by a drug class-specific withdrawal syndrome that can be produced by abrupt cessation, rapid dose reduction, decreasing blood level of the drug, and/or administration of an antagonist; psychological dependence is a subjective sense of need for a specific psychoactive substance, either for its positive effects or to avoid negative effects associated with its abstinence; and one category of psychoactive substance use disorder in previous editions of the DSM, but not in DSM-5.

**Detoxification:** Usually used to refer to a process of withdrawing a person from a specific psychoactive substance in a safe and effective manner. The term actually encompasses safe management of intoxication states (more literally, “detoxification”) and of withdrawal states. In this document, this term has been replaced by the term Withdrawal Management.

**Failure (as in treatment failure):** This term is not recommended for use in clinical or research contexts. Lack of progress and/or regression at any given level of care. Such a situation warrants a reassessment of the treatment plan, with modification of the treatment approach. Such situations may require changes in the treatment plan at the same level of care or transfer to a different (more or less intensive) level of care to achieve a better therapeutic response and outcome. Sometimes used to describe relapse after a single treatment episode – an inappropriate construct in describing a chronic disease or disorder. The use of “treatment failure” is therefore not a recommended concept or term to be used.

**Harm reduction:** A treatment and prevention approach that encompasses individual and public health needs, aiming to decrease the health and socioeconomic costs and consequences of addiction-related problems, especially medical complications and transmission of infectious diseases.
without necessarily requiring abstinence. Abstinence-based treatment approaches are themselves a part of comprehensive harm reduction strategies. A range of recovery activities may be included in every harm reduction strategy.\textsuperscript{4}

**Induction (office and home)**: The phase of opioid treatment during which maintenance medication dosage levels are adjusted until a patient attains stabilization. Buprenorphine induction may take place in an office-based setting or home-based setting. Methadone induction must take place in an opioid treatment program (OTP).\textsuperscript{15}

**Illicit opioid (nonmedical drug use)**: Use of an illicit drug or the use of a prescribed medicine for reasons other than the reasons intended by the prescriber, for example, to produce positive reward or negative reward. Nonmedical use of prescription drugs often includes use of a drug in higher doses than authorized by the prescriber or through a different route of administration than intended by the prescriber, and for a purpose other than the indication intended by the prescriber (e.g. the use of methylphenidate prescribed for attention deficit hyperactivity disorder [ADHD] to produce euphoria rather than to reduce symptoms or dysfunction from ADHD).\textsuperscript{16}

**Maintenance treatment(s)**: Pharmacotherapy on a consistent schedule for persons with addiction, usually with an agonist or partial agonist, which mitigates against the pathological pursuit of reward and/or relief and allows remission of overt addiction-related problems.

Maintenance treatments of addiction are associated with the development of a pharmacological steady state in which receptors for addictive substances are occupied, resulting in relative or complete blockade of central nervous system receptors such that addictive substances are no longer sought for reward and/or relief. Maintenance treatments of addiction are also designed to mitigate against the risk of overdose. Depending on the circumstances of a given case, a care plan including maintenance treatments can be time-limited or can remain in place lifelong. Integration of pharmacotherapy via maintenance treatments with psychosocial treatment generally is associated with the best clinical results. Maintenance treatments can be part of an individual’s treatment plan in abstinence-based recovery activities or can be a part of harm reduction strategies.\textsuperscript{4}

**Moderation management**: Moderation management (MM) is a behavioral change program and national support group network for people concerned about their drinking and who desire to make positive lifestyle changes. MM empowers individuals to accept personal responsibility for choosing and maintaining their own path, whether moderation or abstinence. MM promotes early self-recognition of risky drinking behavior, when moderate drinking is a more easily achievable goal.\textsuperscript{17}

**Motivational interviewing**:

(1) **Layperson’s definition**: A collaborative conversation style for strengthening a person’s own motivation and commitment to change.

(2) **Practitioner’s definition**: A person-centered counseling style for addressing the common problem of ambivalence about change.

(3) **Technical definition**: A collaborative, goal-oriented style of communication with particular attention to the language of change. It is designed to strengthen personal motivation for and commitment to a specific goal by eliciting and exploring the person’s own reasons for change within an atmosphere of acceptance and compassion.\textsuperscript{4}

**Naloxone challenge**: Naloxone is a short-acting opioid antagonist. Naloxone challenge is a test in which naloxone is administered to patients to evaluate their level of opioid dependence before the commencement of opioid pharmacotherapy.\textsuperscript{15,18}

**Naltrexone-facilitated opioid withdrawal management**: This is a method of withdrawal management. It involves the use of a single dose of buprenorphine combined with multiple small doses of naltrexone over a several day period to manage withdrawal and facilitate the initiation of treatment with naltrexone.\textsuperscript{19}

**Narcotic drugs**: Legally defined by the Controlled Substances Act in the United States since its enactment in 1970. The term “narcotic” is broad and can include drugs produced directly or indirectly by extraction from substances of vegetable origin, or independently by means of chemical synthesis, or by a combination of extraction and chemical synthesis. The main compounds defined as narcotics in the United States include: opium, opiates, derivatives of opium and opiates, including their isomers, esters, ethers, salts, and salts of isomers, esters, ethers (but not the isooquinoline alkaloids of opium), poppy straw and concentrate of poppy straw, coca leaves, cocaine, its salts, optical and geometric isomers, and salts of isomers and eгонine, its derivatives, their salts, isomers, and salts of isomers. Any compound, mixture, or preparation which contains any quantity of any of the substances referred to above.\textsuperscript{20}

**Neuroadaptation**: See “Tolerance” for the definition.

**Office-based opioid treatment (OBOT)**: Physicians in private practices or a number of types of public sector clinics can be authorized to prescribe outpatient supplies of the partial opioid agonist buprenorphine. There is no regulation per se of the clinic site itself, but of the individual physician who prescribes buprenorphine.\textsuperscript{4}

**Opiate**: One of a group of alkaloids derived from the opium poppy (Papaver somniferum), with the ability to induce analgesia, euphoria, and, in higher doses, stupor, coma, and respiratory depression. The term excludes synthetic opioids.\textsuperscript{18}

**Opioid**: A current term for any psychoactive chemical that resembles morphine pharmacologically, including opiates and synthetic/semisynthetic agents that exert their effects by binding to highly selective receptors in the brain where morphine and endogenous opioids affect their actions.\textsuperscript{16}

**Opioid agonist medication**: Opioid agonist medications pharmacologically occupy opioid receptors in the body. They thereby relieve withdrawal symptoms and reduce or extinguish cravings for opioids.\textsuperscript{4}

**Opioid antagonist medication**: Opioid antagonist medications pharmacologically occupy opioid receptors in the body, but do not activate the receptors. This effectively blocks the receptor, preventing the brain from responding to opioids. The result is that further use of opioids does not produce euphoria or intoxication.\textsuperscript{4}

**Opioid intoxication**: A condition that follows the administration of opioids, resulting in disturbances in the level
of consciousness, cognition, perception, judgment, affect, behavior, or other psychophysiological functions and responses. These disturbances are related to the acute pharmacological effects of, and learned responses to, opioids. With time, these disturbances resolve, resulting in complete recovery, except when tissue damage or other complications have arisen. Intoxication depends on the type and dose of opioid, and is influenced by factors such as an individual’s level of tolerance. Individuals often take drugs in the quantity required to achieve a desired degree of intoxication. Behavior resulting from a given level of intoxication is strongly influenced by cultural and personal expectations about the effects of the drug. According to the International Classifications of Diseases-10 (ICD-10), acute intoxication is the term used for intoxication of clinical significance (F11.0). Complications may include trauma, inhalation of vomitus, delirium, coma, and convulsions, depending on the substance and method of administration.15

Opioid treatment program (OTP): A program certified by the United States, Substance Abuse and Mental Health Services Administration (SAMHSA), usually comprising a facility, staff, administration, patients, and services, that engages in supervised assessment and treatment, using methadone, buprenorphine, L-alpha acetyl methadol, or naltrexone, of individuals who are addicted to opioids. An OTP can exist in a number of settings including, but not limited to, intensive outpatient, residential, and hospital settings. Services may include medically supervised withdrawal and/or maintenance treatment, along with various levels of medical, psychiatric, psychosocial, and other types of supportive care.15

Opioid treatment services (OTS): An umbrella term that encompasses a variety of pharmacological and nonpharmacological treatment modalities. This term broadens understanding of opioid treatments to include all medications used to treat opioid use disorders and the psychosocial treatment that is offered concurrently with these pharmacotherapies. Pharmacological agents include opioid agonist medications such as methadone and buprenorphine, and opioid antagonist medications such as naltrexone.4

Opioid use disorder: A substance use disorder involving opioids. See “Substance Use Disorder.”

Opioid withdrawal syndrome: Over time, morphine and its analogs induce tolerance and neuroadaptive changes that are responsible for rebound hyperexcitability when the drug is withdrawn. The withdrawal syndrome includes craving, anxiety, dysphoria, yawning, sweating, piloerection (gooseflesh), lacrimation (excessive tear formation), rhinorrhea (running nose), insomnia, nausea or vomiting, diarrhea, cramps, muscle aches, and fever. With short-acting drugs, such as morphine or heroin, withdrawal symptoms may appear within 8–12 hours of the last dose of the drug, reach a peak at 48–72 hours, and clear after 7–10 days. With longer-acting drugs, such as methadone, onset of withdrawal symptoms may not occur until 1–3 days after the last dose; symptoms peak between the third and eighth day and may persist for several weeks, but are generally milder than those that follow morphine or heroin withdrawal after equivalent doses.18

Overdose: The inadvertent or deliberate consumption of a dose much larger than that either habitually used by the individual or ordinarily used for treatment of an illness, and likely to result in a serious toxic reaction or death.4

Patient: As used in this document, an individual receiving alcohol, tobacco, and/or other drug or addictive disorder treatment. The terms “client” and “patient” sometimes are used interchangeably, although staff in nonmedical settings more commonly refer to “clients.”4

Physical dependence: State of physical adaptation that is manifested by a drug class-specific withdrawal syndrome that can be produced by abrupt cessation, rapid dose reduction, and/or decreasing blood level of a substance and/or administration of an antagonist.15

Psychosocial treatment: Any nonpharmacological intervention carried out in a therapeutic context at an individual, family, or group level. Psychosocial interventions may include structured, professionally administered interventions (eg, cognitive behavior therapy or insight-oriented psychotherapy) or nonprofessional interventions (eg, self-help groups and nonpharmacological interventions from traditional healers).12

Precipitated withdrawal: A condition that occurs when an opioid agonist is displaced from the opioid receptors by an antagonist. It is also possible for a partial agonist to precipitate withdrawal.18

Recovery: A process of sustained action that addresses the biological, psychological, social, and spiritual disturbances inherent in addiction. This effort is in the direction of a consistent pursuit of abstinence, addressing impairment in behavioral control, dealing with cravings, recognizing problems in one’s behaviors and interpersonal relationships, and dealing more effectively with emotional responses. Recovery actions lead to reversal of negative, self-defeating internal processes and behaviors, allowing healing of relationships with self and others. The concepts of humility, acceptance, and surrender are useful in this process. (Note: ASAM continues to explore, as an evolving process, improved ways to define Recovery.)4

Relapse: A process in which an individual who has established abstinence or sobriety experiences recurrence of signs and symptoms of active addiction, often including resumption of the pathological pursuit of reward and/or relief through the use of substances and other behaviors. When in relapse, there is often disengagement from recovery activities. Relapse can be triggered by exposure to rewarding substances and behaviors, by exposure to environmental cues to use, and by exposure to emotional stressors that trigger heightened activity in brain stress circuits. The event of using or acting out is the latter part of the process, which can be prevented by early intervention.4

Sedative, hypnotic, or anxiolytics: This class of substances includes all prescription sleeping medications and virtually all prescription antianxiety medications. Nonbenzodiazepine antianxiety medications, such as buspirone and gepirone, are not included in this class because they are not associated with significant misuse.21

Sobriety: A state of sustained abstinence with a clear commitment to and active seeking of balance in the biological, psychological, social, and spiritual aspects of an individual’s health and wellness that were previously compromised by active addiction.4

Spontaneous withdrawal: A condition that occurs when an individual who is physically dependent on an opioid agonist suddenly discontinues or markedly decreases opioid use.22
Stabilization: Includes the medical and psychosocial processes of assisting the patient through acute intoxication and withdrawal to the attainment of a medically stable, fully supported, substance-free state. This often is done with the assistance of medications, though in some approaches to detoxification, no medication is used.13

Substance use disorder: Substance use disorder is marked by a cluster of cognitive, behavioral, and physiological symptoms indicating that the individual continues to use alcohol, tobacco, and/or other drugs despite significant related problems. Diagnostic criteria are given in the DSM-5. Substance use disorder is the new nomenclature for what was included as substance dependence and substance abuse in the DSM-IV.16

Tolerance: A decrease in response to a drug dose that occurs with continued use. If an individual is tolerant to a drug, increased doses are required to achieve the effects originally produced by lower doses. Both physiological and psychosocial factors may contribute to the development of tolerance. Physiological factors include metabolic and functional tolerance. In metabolic tolerance, the body can eliminate the substance more readily, because the substance is metabolized at an increased rate. In functional tolerance, the central nervous system is less sensitive to the substance. An example of a psychosocial factor contributing to tolerance is behavioral tolerance, when learning or altered environmental constraints change the effect of the drug. Acute tolerance refers to rapid, temporary accommodation to the effect of a substance after a single dose. Reverse tolerance, also known as sensitization, refers to a condition in which the response to a substance increased with repeated use. Tolerance is one of the criteria of the dependence syndrome.18

Withdrawal management: Withdrawal management describes services to assist a patient’s withdrawal. The liver detoxifies, but clinicians manage withdrawal.10

INTRODUCTION

Purpose

The American Society of Addiction Medicine (ASAM) developed the National Practice Guideline for the Use of Medications in the Treatment of Addiction Involving Opioid Use (the “Practice Guideline”) to provide information on evidence-based treatment of opioid use disorder. This guideline is intended to assist clinicians in the decision-making process for prescribing pharmacotherapies and psychosocial treatments to patients with opioid use disorder.

Specifically, the Practice Guideline helps in the following:

1. Identifies current practices and outstanding questions regarding the safe and effective use of medications for the treatment of opioid use disorder.
2. Uses a methodology that integrates evidence-based practices and expert clinical judgment to develop recommendations on best practices in opioid use disorder treatment.

Background on Opioid Use Disorder

Opioid use disorder is a chronic, relapsing disease, which has significant economic, personal, and public health consequences. Many readers of this Practice Guideline may recognize the term “opioid use disorder” as it is used in the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5) developed by the American Psychiatric Association; others may be more familiar with the term “opioid dependence,” as used in previous editions of the DSM.

The ASAM defines addiction as “a primary, chronic disease of brain reward, motivation, memory, and related circuitry,” with a “dysfunction in these circuits” being reflected in “an individual pathologically pursuing reward and/or relief of withdrawal symptoms by substance use and other behaviors.” In this context, the preferred term by ASAM for this serious bio-psycho-social-spiritual illness would be “addiction involving opioid use.” ASAM views addiction as a fundamental neurological disorder of “brain reward, motivation, memory, and related circuitry,” and recognizes that there are unifying features in all cases of addiction, including substance-related addiction and nonsubstance-related addiction. It is clear that a variety of substances commonly associated with addiction work on specific receptors in the nervous system and on specific neurotransmitter systems. Specific pharmacological agents used in the treatment of addiction exert their effects via their actions on specific receptors. Hence, the medications used in the treatment of addiction have specific efficacy based on their own molecular structure and the particular neurotransmitters affected by that medication. Medications developed for the treatment of addiction involving opioid use may have benefits in the treatment of addiction involving an individual’s use of other substances. For instance, naltrexone (US Food and Drug Administration [FDA]), for the treatment of opioid dependence using DSM, 4th Edition (DSM-IV) terminology, is also US FDA-approved for the treatment of alcohol dependence, as per the DSM-IV guidelines.

The ASAM recognizes that research is yet to be done to confirm the specificity of its conceptualization of addiction as a medical and a psychiatric illness (note: the International Classification of Diseases-10 [ICD-10], and the American Medical Association in various policy and position statements recognize addiction as both a medical and a psychiatric disorder). ASAM encourages clinicians, researchers, educators, and policy makers to use the term “addiction” regardless of whether the patient’s condition at a given point in its natural history appears to more prominently involve opioid use or alcohol use, nicotine use, or engagement in addictive behaviors such as gambling. Given the widespread North American application of the DSM’s categorization of disorders, this Practice Guideline will, for the sake of brevity and convention, use the term “opioid use disorder.”

Epidemiology

According to the 2013 National Survey on Drug Use and Health (NSDUH),5 4.5 million individuals were current nonmedical users of prescription opioids (past month) and 1.9 million individuals met DSM-IV criteria for abuse or dependence of prescription opioids. In addition, the NSDUH reported that 289,000 people were current (past month) users of heroin
and 517,000 met DSM IV criteria for abuse or dependence in 2013. The rate of prescription opioid use for nonmedical purposes was 1.7% in persons 12 years and older. However, the rate of prescription opioid use among youth aged 12–17 declined from 3.2% in 2002 and 2003 to 1.7% in 2013. Importantly, nonmedical use of prescription opioids has been shown to be associated with the initiation of heroin use. In a study pooling data from the NSDUH from 2002 to 2012, the incidence of heroin use was 19 times greater among individuals who reported prior nonmedical use of prescription opioids compared to individuals who did not report prior nonmedical prescription opioid use.23

Mortality and Morbidity

Opioid use is associated with increased mortality. The leading causes of death in people using opioids for nonmedical purposes are overdose and trauma.6 The number of unintentional overdose deaths from prescription opioids has more than quadrupled since 1999.24

Opioid use increases the risk of exposure to HIV, viral hepatitis, and other infectious agents through contact with infected blood or body fluids (eg, semen) that results from sharing syringes and injection paraphernalia, or through unprotected sexual contact. Similarly, it increases the risk of contracting infectious diseases such as HIV/AIDS and hepatitis because people under the influence of drugs may engage in risky behaviors that can expose them to these diseases.6

Importantly, injection drug use (IDU) is the highest-risk behavior for acquiring hepatitis C virus (HCV) infection and continues to drive this epidemic. Of the 17,000 new HCV infections in the United States in 2010, more than half (53%) involved IDU. In 2010, hepatitis B virus (HBV) infection rates were estimated to be 20% higher among people who engaged in IDU in the United States.25

Scope of Guideline

This Practice Guideline was developed to assist in the evaluation and treatment of opioid use disorder. Although there are existing guidelines for the treatment of opioid use disorder, none have included all of the medications used for its treatment at present. Moreover, few of the existing guidelines address the needs of special populations such as pregnant women, individuals with co-occurring psychiatric disorders, individuals with pain, adolescents, or individuals involved in the criminal justice system.

Overall, the Practice Guideline contains recommendations for the evaluation and treatment of opioid use disorder, opioid withdrawal management, psychosocial treatment, special populations, and opioid overdose.

(1) Part 1: Contains guidelines on the evaluation of opioid use disorder
(2) Part 2: Provides recommendations regarding treatment options
(3) Part 3: Describes the treatment of opioid withdrawal
(4) Parts 4–6: Provide guidelines on medications for treating opioid use disorder
(5) Part 7: Describes psychosocial treatment used in conjunction with medications

Included and Excluded Medications

The medications covered in this guideline include the following:

(1) Methadone (part 4)
(2) Buprenorphine (part 5)
(3) Naltrexone in oral and extended-release injectable formulations (part 6)
(4) Naloxone (part 13)

All of these medications act directly upon the opioid receptors, particularly the mu-subtype. Methadone is a mu-receptor agonist; buprenorphine is a partial mu-receptor agonist; and naltrexone is an antagonist. Naloxone is a fast-acting antagonist used to reverse opioid overdose, a condition that may be life-threatening. Because of the differing actions of these medications at the receptor level, they can have very different clinical effects during treatment.

Other medications show promise for the treatment of opioid use disorder; however, there is insufficient evidence at this writing to make a full analysis of their effectiveness. For example, whereas not US FDA-approved for opioid withdrawal syndrome in the United States, it is recognized that clonidine, an alpha-2 adrenergic agonist, has been in use in clinical settings for 25 years. Lofexidine (known as BritLofex, Britannia Pharmaceuticals) is approved for treating opioid withdrawal use in the United Kingdom. Because of their long history of off-label use in the United States, clonidine and buprenorphine are described for opioid withdrawal syndrome in this Practice Guideline. Again, there are other off-label medications for withdrawal management in the treatment of opioid use disorder (eg, tramadol) that have been excluded from this guideline because there is insufficient evidence to make a full analysis of their effectiveness or consensus recommendations for their use at this time.

The ASAM recognizes that withdrawal management and withdrawal management medications could be potential topics for future guideline development. ASAM will regularly review its published guidelines to determine when partial or full updates are needed. The emergence of newly approved medications and new research will be considered as part of this process. It is also recognized that ASAM may develop guidelines or consensus documents on topics addressed in this Practice Guideline (eg, urine drug testing). If that occurs before any update to this Practice Guideline, it is to be assumed that the recommendations in the latter documents will take precedence until this Practice Guideline is updated.

Intended Audience

This Practice Guideline is intended for all clinicians, at any level, involved in evaluating for, and/or providing, opioid use disorder treatment in the United States. The intended audience falls into the following broad groups:
(1) Physicians involved in the assessment, diagnosis, and treatment of opioid use disorder. General practice physicians (including family practitioners, pediatricians, obstetricians, and gynecologists) are often first-line providers of medical care related to opioid use disorder and are a key audience for the guideline.

(2) Clinicians involved with the completion of health assessments and delivery of health services to special populations.

(3) Clinicians involved in making an initial assessment and offering psychosocial treatments in conjunction with medications to treat opioid use disorder.

(4) Clinical case managers responsible for clinical care support, coordination of health-related and social services, and tracking of patient adherence to the treatment plan.

Qualifying Statement

The ASAM Practice Guideline is intended to aid clinicians in their clinical decision-making and patient management. It strives to identify and define clinical decision-making junctures that meet the needs of most patients in most circumstances. The ultimate judgment about care of a particular patient must be made together by the clinician and the patient in light of all the circumstances presented by the patient. As a result, situations may arise in which deviations from the Practice Guideline may be appropriate. Clinical decision-making should involve consideration of the quality and availability of expertise and services in the community wherein care is provided.

In circumstances in which the Practice Guideline is being used as the basis for regulatory or payer decisions, improvement in quality of care should be the goal. Finally, prescribed courses of treatment contained in recommendations in this Practice Guideline are effective only if the recommendations, as outlined, are followed. Because lack of patient understanding and adherence may adversely affect outcomes, clinicians should make every effort to engage the patient’s understanding of, and adherence to, prescribed and recommended pharmacological and psychosocial treatments. Patients should be informed of the risks, benefits, and alternatives to a particular treatment and should be shared parties to decision-making whenever feasible. Recommendations in this Practice Guideline do not supersedes any federal or state regulation.

METHODOLOGY

Overview of Approach

These guidelines were developed using the RAND/UCLA Appropriateness Method (RAM) – a process that combines scientific evidence and clinical knowledge to determine the appropriateness of a set of clinical procedures. This process is particularly appropriate for these guidelines for two reasons. First, there are very few randomized clinical trials directly comparing the approved medications for the treatment of opioid use disorder. Second, evidence supporting the efficacy of the individual medications reflects varying years of research and varying levels of evidence (eg, nonrandomized studies, retrospective studies). The randomized clinical trial (RCT) is the gold standard for evidence-based medicine. When data are lacking from RCT, other methods must be used to help clinicians make the best choices. In addition, these guidelines are unique in that they include all three of the medications approved at present by the US FDA in multiple formulations, and they address the needs of special populations such as pregnant women, individuals with pain, adolescents, individuals with co-occurring psychiatric disorder, and individuals in criminal justice. Such special populations are often excluded from RCTs, making the use of RCT data even more difficult. The RAM process combines the best available scientific evidence combined with the collective judgment of experts to yield statements about the appropriateness of specific procedures that clinicians can apply to their everyday practice.

The ASAM’s Quality Improvement Council (QIC) was the oversight committee for the guideline development. The QIC appointed a Guideline Committee to participate throughout the development process, rate treatment scenarios, and assist in writing. In selecting the committee members, the QIC made every effort to avoid actual, potential, or perceived conflicts of interest that may arise as a result of relationships with industry and other entities among members of the Guideline Committee. All QIC members, committee members, and external reviewers of the guideline were required to disclose all current related relationships, which are presented in Appendices III, IV, and V.

The Guideline Committee was comprised of 10 experts and researchers from multiple disciplines, medical specialties, and subspecialties, including academic research, internal medicine, family medicine, addiction medicine, addiction psychiatry, general psychiatry, obstetrics/gynecology, and clinical neurobiology. Physicians with both allopathic and osteopathic training were represented in the Guideline Committee. The Guideline Committee was assisted by a technical team of researchers from the Treatment Research Institute (TRI) affiliated with the University of Pennsylvania (see page 2), and worked under the guidance of Dr. Kyle Kampman who led the TRI team as Principal Investigator in implementing the RAM.

The RAM process is a deliberate approach encompassing review of existing guidelines, literature reviews, appropriateness ratings, necessity reviews, and document development. The steps are summarized in the flow chart in “Exhibit 1 Methodology.”

Task 1: Review of Existing Guidelines

Review of Existing Clinical Guidelines

All existing clinical guidelines that addressed the use of medications and psychosocial treatments in the treatment of opioid use disorders including special populations (eg pregnant women, individuals with pain, and adolescents), and that were published during the period from January 2000 to April 2014, were identified and reviewed. In total, 49 guidelines were identified and 34 were ultimately included in the analysis. See “Appendix I” for a list of the guidelines that were reviewed. The included guidelines offered evidence-based recommendations for the treatment of opioid use disorder using methadone, buprenorphine, naltrexone, and/or naloxone.

The majority of existing clinical guidelines are based on systematic reviews of the literature including appropriateness
criteria used in the RAM. Therefore, the aim of this exercise was not to re-review all of the research literature, but to identify within the existing clinical guidelines how they addressed common questions or considerations that clinicians are likely to raise in the course of deciding whether and how to use medications as part of the treatment of individuals with opioid use disorder.

**Analysis of Clinical Guidelines**

On the basis of the previously reviewed existing clinical guidelines, an analytic table was created and populated to display the identified key components. This table served as the foundation for development of hypothetical statements. The hypothetical statements were sentences describing recommendations derived from the analysis of the clinical guidelines.

**Preparation of Literature Review on Psychosocial Interventions**

A review of the literature on the efficacy of psychosocial treatment delivered in conjunction with medications for the treatment of opioid use disorder was conducted. This review was partially supported by funding from the National Institute on Drug Abuse (NIDA). Articles were identified for inclusion in the review through searches conducted in two bibliographic databases (eg, PsycINFO and PubMed) using predefined search terms and established selection criteria. Titles and abstracts were reviewed for inclusion by two members of the research team.

To increase the overall relevance of the review, the search was limited to articles in the 6-year period from 2008 to the present. In the event that the article reflected a secondary analysis of data from a relevant study, the original study was included in the literature review. In addition, findings from three prominent systematic reviews (ie, 2007 review on psychosocial interventions in pharmacotherapy of opioid dependence prepared for the Technical Development Group for the World Health Organization, "Guidelines for Psychosocially Assisted Pharmacotherapy of Opioid Dependence," and two 2011 Cochrane reviews examining psychosocial and pharmacological treatments for opioid withdrawal management and psychosocial interventions combined with agonist treatment) were summarized. 27–29

The literature search yielded 938 articles. The titles and abstracts were reviewed to determine if the study met the inclusion/exclusion criteria, and those that did not (n = 787) were removed. The remaining 151 articles were then reviewed for inclusion, and 27 articles were ultimately retained for use in the literature review as the others did not meet the predetermined inclusion/exclusion criteria. These articles, along with the relevant systematic reviews of the literature, are described in the literature review in the next section.

**Task 2: Identification of Hypothetical Statements and Appropriateness Rating**

**RAND/UCLA Appropriateness Method**

The first step in the RAM is to develop a set of hypothetical statements, which were derived from the guideline analysis and literature review described in the previous section, for appropriateness rating.

The analysis and literature review generated a list of 245 hypothetical statements that reflected recommended medical or psychosocial treatment. Each member of the Guideline Committee reviewed the guideline analysis and literature review, and privately rated 245 hypothetical clinical statements on a nine-point scale of “appropriateness.” In the context of this Practice Guideline, the meaning of appropriateness was defined as:

“A statement, procedure or treatment is considered to be appropriate if the expected health benefit (eg, increased life expectancy, relief of pain, reduction in anxiety, improved functional capacity) exceeds the expected negative consequences (eg, mortality, morbidity, anxiety, pain) by a sufficiently wide margin that the procedure is worth doing, exclusive of cost.”

An appropriateness score of 1 meant that the statement was “highly inappropriate.” An appropriateness rating of 9 meant that the statement was “highly appropriate.” These appropriateness statements were meant to identify a lack of consensus in existing guidelines and research literature.

**Guideline Committee Meeting**

Upon completion and collection of the individual Guideline Committee member ratings, 201 out of the 245 hypothetical statements were identified as meeting the criteria for consensus. The remaining 44 statements had divergent ratings. On September 15, 2014, the Guideline Committee met in Washington, District of Columbia, to discuss the hypothetical clinical statements. At this meeting, the committee came to consensus on the hypothetical statements. After the meeting, the information gathered was used to revise several of the statements; and the Guideline Committee was asked to re-rate the revised statements.

**Literature Review**

A supplementary literature review was also conducted to identify relevant studies that might resolve statements that had resulted in divergent ratings during the Guideline Committee meeting. Information relating to the vast majority of these divergent ratings was subsequently found within the existing guideline data set, and consequently included in the first draft of the Practice Guideline.

For the topics and questions for which answers were not found in the existing guideline data set, a full literature review was conducted. The topics and questions for which no further clarification was found in the literature were considered “gaps” that require additional research before inclusion in this guideline. These gaps in the literature were: urine drug testing; patients using marijuana; the safety of delivering injectable naltrexone doses to patients with high metabolism every 3 weeks; and the safety of adding full agonists to treatment with buprenorphine for pain management.

**Creation and Revision of Guideline Outline**

All the identified appropriate/uncertain hypothetical statements and supporting research were incorporated into an outline defining each specific section to be included in
the final Practice Guideline. The draft outline, review of existing guidelines, and literature review were all sent to the Guideline Committee members for review and discussion during two web teleconferences and through private communication. Two teleconferences were held to ensure full participation from members of the Guideline Committee.

Task 3: Comparative Analysis, Review, and Necessity Rating

Committee Review and Rating

The Guideline Committee then re-rated the 211 “appropriate” hypothetical statements for necessity. When rating for necessity, the Guideline Committee members were asked to adhere to the following guidance:

A statement was considered necessary when all the following criteria were met:

1. It would be considered improper care not to provide this service.
2. Reasonable chance exists that this procedure and/or service will benefit the patient. (A procedure could be appropriate if it had a low likelihood of benefit, but few risks; however, such procedures would not be necessary.)
3. The benefit to the patient is of significance and certainty. (A procedure could be appropriate if it had a minor but almost certain benefit, but it would not be necessary.)

Necessity is a more stringent criterion than appropriateness. If a procedure is necessary, this means that the expected benefits outweigh the expected harms (ie, it is appropriate), and that they do so by such a margin that the physician must recommend the service. Of course, patients may decline to follow their physician’s recommendations.26

Of the 211 rated statements, 184 hypothetical statements met the criteria for both appropriate and necessary, and were incorporated in the guideline.

Final Draft Outline

The final draft outline highlighted hypothetical statements that had been determined to rise to the level of necessity.

Task 4: Drafting the National Practice Guideline

Draft and Review

A first draft of the Practice Guideline was created using the Guideline Committee’s recommendations resulting from supporting evidence and the appropriateness and necessity ratings discussed above. The first draft of the Practice Guideline was sent to the Guideline Committee for review and electronic comment. During a subsequent teleconference in January 2015, the Guideline Committee discussed the comments received via first review. Revisions were made to the draft, which went again through subsequent reviews by the Guideline Committee and the ASAM Quality Council throughout February and March 2015.

Task 5: External Review

External Review

The ASAM sought input from ASAM members – patient and caregiver groups, stakeholders including experts from the criminal justice system, government agencies, other professional societies, and hospitals and health systems. ASAM also made the document and a qualitative review guide available to ASAM members and the general public for a one week period of review and comment. The final draft Practice Guideline was submitted to the ASAM Board of Directors in April 2015.

Exhibit 1: Methodology

PART 1: ASSESSMENT AND DIAGNOSIS OF OPIOID USE DISORDER

Comprehensive Assessment

The ASAM Standards of Care for the Addiction Specialist Physician (the “ASAM Standards”) describe the importance of comprehensive assessment. Though the assessment process is ongoing for the patient with substance use disorder, a comprehensive assessment is “a critical aspect of
patient engagement and treatment planning” and should be conducted during the initial phase of treatment.10 The assessment is not necessarily the first visit; it is critical, however, to determine emergent or urgent medical problems. Patients with opioid use disorder often have other physiological or psychiatric conditions that may complicate their treatment. These concomitant medical and psychiatric conditions may need immediate attention and require transfer to a higher level of care (see “Part 11: Special Populations: Individuals With Co-occurring Psychiatric Disorders”).

**Medical History**

The patient’s medical history should include screening for concomitant medical conditions and routine identification of medications, allergies, pregnancy, family medical history, and so on. Particular attention should be paid to the following: history of infectious diseases such as hepatitis, HIV, and TB; acute trauma; psychiatric, substance use, addictive behavior, and addiction treatment history; and any previous history of pharmacotherapy. An intake of the patient’s social history and assessment of readiness for change including identification of any facilitators and barriers are also components of the medical history.

**Physical Examination**

As part of the comprehensive assessment of patients with opioid use disorder, a physical examination should be completed by the prescriber him/herself (the clinician authorizing the use of a medication for the treatment of opioid use disorder), another member of the clinician’s health system, or the prescribing physician. Further, the responsible clinician should assure that a current physical examination (in accordance with the ASAM Standards) is contained within the patient medical record before a patient is started on a new medication for the treatment of his/her opioid use disorder.

The examination should include identifying objective physical signs of opioid intoxication or withdrawal. See Table 1 for a list of common signs of intoxication or withdrawal. In addition, the examination should evaluate objective signs of substance use disorders. See Table 2 for a list of physical signs of substance use disorders (including opioid use disorder).

Special attention should be given to identifying IDU by the presence of new or older puncture marks. Common injection sites of substance use disorders (including opioid use disorder), another member of the clinician’s health system, or the prescribing physician. Further, the responsible clinician should assure that a current physical examination (in accordance with the ASAM Standards) is contained within the patient medical record before a patient is started on a new medication for the treatment of his/her opioid use disorder.

The examination should include identifying objective physical signs of opioid intoxication or withdrawal. See Table 1 for a list of common signs of intoxication or withdrawal. In addition, the examination should evaluate objective signs of substance use disorders. See Table 2 for a list of physical signs of substance use disorders (including opioid use disorder).

**Assessment and History Considerations Specific to Females**

Use of contraception and determination of pregnancy are factors in choosing treatment options for women with opioid use disorder. Contraception and reproductive health are topics of discussion within the assessment process of female patients who are considering opioid use disorder treatment. Clinicians and female patients should keep in mind that fertility increases as treatment becomes effective. Case management plans may need to include referral to gynecological services for female patients. An in-depth discussion of the treatment of opioid use disorder in pregnant women is described later in “Part 8: Special Populations: Pregnant Women.”

**Laboratory Tests**

Initial lab testing should include hepatitis C and HIV testing. Hepatitis serology and vaccination are recommended. Hepatitis A and B testing and vaccination should be offered when appropriate. As above, women of childbearing potential and age should be tested for pregnancy. Tuberculosis testing and testing for sexually transmitted infections, including syphilis, may be considered.

A complete blood count and liver function study should be conducted to screen for liver dysfunction, infection, and other medical conditions. Abnormal results may require further investigation.

**Assessment for Mental Health Status and Psychiatric Disorder**

Patients being evaluated for opioid use disorder, and/or for possible medication use in the treatment of opioid use disorder, should undergo an evaluation of possible co-occurring psychiatric disorders. During the assessment process and physical examination, it is important for the clinician to assess for mental health status consistent with the ASAM Standards.

In the ASAM Standards, I.1 indicates that the physician “assures that an initial comprehensive, multicomponent assessment is performed for each patient, either by performing it her/himself or by assuring it is conducted in full or in part by another qualified professional within the system in which she/he is working.” A thorough medical and psychiatric history and family history is indicated as a component of this same standard. Patients

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**TABLE 1. Common Signs of Opioid Intoxication and Withdrawal**

<table>
<thead>
<tr>
<th>Intoxication Signs</th>
<th>Withdrawal Signs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drooping eyelids</td>
<td>Restlessness, irritability, anxiety</td>
</tr>
<tr>
<td>Constricted pupils</td>
<td>Insomnia</td>
</tr>
<tr>
<td>Reduced respiratory rate</td>
<td>Yawning</td>
</tr>
<tr>
<td>Scratching (due to histamine release)</td>
<td>Abdominal cramps, diarrhea, vomiting</td>
</tr>
<tr>
<td>Head nodding</td>
<td>Dilated pupils</td>
</tr>
<tr>
<td></td>
<td>Sweating</td>
</tr>
<tr>
<td></td>
<td>Piloerection</td>
</tr>
</tbody>
</table>

**TABLE 2. Objective Physical Signs in Substance Use Disorders**

<table>
<thead>
<tr>
<th>System</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermatologic</td>
<td>Abscesses, rashes, cellulitis, thrombosed veins, jaundice, scars, track marks, pock marks from skin popping</td>
</tr>
<tr>
<td>Ear, nose, throat, and eyes</td>
<td>Pupils pinpoint or dilated, yellow sclera, conjunctivitis, ruptured eardrums, otitis media, discharge from ears, rhinorrhea, rhinitis, excoriation or perforation of nasal septum, epistaxis, sinusitis, hoarseness, or laryngitis</td>
</tr>
<tr>
<td>Mouth</td>
<td>Poor dentition, gum disease, abscesses</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>Murrurs, arrhythmias</td>
</tr>
<tr>
<td>Respiratory</td>
<td>Asthma, dyspnea, rales, chronic cough, hematemia</td>
</tr>
<tr>
<td>Musculoskeletal and extremities</td>
<td>Pitting edema, broken bones, traumatic amputations, burns on fingers</td>
</tr>
<tr>
<td>Gastrointestinal</td>
<td>Hepatomegaly, hernias</td>
</tr>
</tbody>
</table>

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who are determined as exhibiting urgent or emergent psychiatric conditions, or who are psychiatrically unstable and represent a danger to themselves or others, should be referred to the appropriate level of care for their safety and the safety of others. Further specialty evaluation may be warranted depending on severity of indicators for psychiatric instability. Indicators of psychiatric instability or disorder include acute suicidal or homicidal ideation, acute psychosis, and delirium.

**Assessment for Alcohol and Substance Use and Treatment History**

A careful evaluation of current and past use of alcohol and drugs, including nonmedical use of prescription medications, is required to diagnose opioid use disorder. Because opioid use disorder may co-occur with other use disorders, the evaluator should assess frequency and quantity of use.

Completing a history of opioid drug use with a patient who has been identified as using opioids should focus on the following:

1. type and amount of opioid(s) used recently;
2. route of administration;
3. last use;
4. treatment history; and
5. problems resulting from drug use.

The amount of drug being consumed will impact the likelihood and severity of withdrawal symptoms when the drug is stopped, so it is useful to obtain an estimate of the amount used (each time and number of times per day).

Prescription Drug Monitoring Programs (PDMPs) offer information about prescription opioid use. They can serve as important resources for clinicians’ use in completing full patient clinical assessments of opiate and other controlled substance use history, and it is recommended that they be utilized. It is recognized, as detailed in “Exhibit 2 Prescription Drug Monitoring Programs,” that there is variation across states in terms of the level of operation of these programs, the extent of their data sharing across states, and state requirements for their use before prescribing controlled substances.

In addition, a history of outpatient and inpatient treatment for alcohol and other substance use disorders should be collected. Clinicians should ask for information about the type and duration of treatment and outcomes.

**Assessment for Co-occurring Alcohol and Substance Use**

Opioid use disorder often co-occurs with alcohol and other substance use disorders. Therefore, evaluation of co-occurring alcohol and substance use disorder is recommended.

Clinicians should assess signs and symptoms of alcohol or sedative, hypnotic, or anxiolytic intoxication or withdrawal. Alcohol or sedative, hypnotic, or anxiolytic withdrawal may result in seizures, hallucinosis, or delirium, and may represent a medical emergency. Likewise, comitant use of alcohol and sedatives, hypnotics, or anxiolytics with opioids may contribute to respiratory depression. Patients with significant co-occurring substance use disorders, especially severe alcohol or sedative, hypnotic, or anxiolytic use, may require a higher level of care.

An evaluation of past and current substance use should be conducted, and a determination as to whether addiction involving other substances or other behaviors is present. For instance, the regular use of marijuana or cannabinoids, tobacco or electronic nicotine delivery devices, or other drugs should not be a reason to suspend medication use in the treatment of addiction involving opioid use. Concurrent use of other drugs or active engagement in other addictive behaviors should lead to consideration of other treatment plan components for the patient. The presence of co-occurring substance use disorders should provoke a re-evaluation of the level of care that is in place for psychosocial treatment, along with pharmacological therapy. In most cases, co-occurring drug use will not represent a medical emergency. In such cases, patients can be treated for both their opioid use disorder and co-occurring alcohol or substance use disorders. However, ongoing use of other drugs may lead to poorer treatment outcomes. Evidence does demonstrate that individuals who are actively using other substances during opioid use disorder treatment have a poorer prognosis.

The Guideline Committee cautioned against excluding patients from treatment for their opioid use disorder because they are using marijuana or other psychoactive substances that do not interact with opioids, and that are not prescribed by their physician. Whereas there is a paucity of research examining this topic, evidence demonstrates that patients under treatment have better outcomes than those not retained under treatment. Suspension of opioid use disorder treatment may increase the risk for death from overdose, accidents, or other health problems. However, continued use of marijuana or other psychoactive substances may impede treatment for opioid use disorder; thus, an approach emphasizing cessation of all unprescribed substances is likely to result in the best results. Further research is needed on the outcomes of patients in opioid use disorder treatment who are continuing the nonmedical use of psychoactive substances.

**Assessment for Tobacco Use**

Tobacco use should be queried, and the benefits of cessation should be promoted routinely with patients presenting for evaluation and treatment of opioid use disorder. Several studies have demonstrated that smoking cessation improves long-term outcomes among individuals receiving treatment for substance use disorders.

**Assessment of Social and Environmental Factors**

Clinicians should conduct an assessment of social and environmental factors (as outlined in the ASAM Standards) to identify facilitators and barriers to addiction treatment and specifically to pharmacotherapy. Before a decision is made to initiate a course of pharmacotherapy for the patient with opioid use disorder, the patient should receive a multidimensional assessment in fidelity with The ASAM Criteria: Treatment Criteria for Addictive, Substance-Related, and Co-occurring Conditions (the “ASAM Criteria”). The ASAM Patient Placement Criteria uses six dimensions to create a holistic biopsychosocial assessment of an individual to be used for service
Diagnosing Opioid Use Disorder

Opioid use disorder is primarily diagnosed on the basis of the history provided by the patient and a comprehensive assessment that includes a physical examination. Corroborating information reported by significant others can be used to confirm the diagnosis, especially when there is lack of clarity or inconsistency in information. Other clinicians may make a diagnosis of opioid use disorder; however, provider confirmation of the diagnosis is required before medications are prescribed. This is discussed further in later parts that address specific medications.

DSM-5 Criteria for Diagnosis

The diagnosis of opioid use disorder is based on criteria outlined in the DSM-5. The criteria describe a problematic pattern of opioid use leading to clinically significant impairment or distress. There are a total of 11 symptoms and severity is specified as either mild (presence of 2-3 symptoms), moderate (presence of 4-5 symptoms) or severe (presence of 6 or more symptoms) within a 12 month period. Opioid use disorder requires that at least two of the following 11 criteria be met within a twelve-month period: (1) taking opioids in larger amounts or over a longer period of time than intended; (2) having a persistent desire or unsuccessful attempts to reduce or control opioid use; (3) spending excess time obtaining, using or recovering from opioids; (4) craving for opioids; (5) continuing opioid use causing inability to fulfill work, home, or school responsibilities; (6) continuing opioid use despite having persistent social or interpersonal problems; (7) lack of involvement in social, occupational or recreational activities; (8) using opioids in physically hazardous situations; (9) continuing opioid use in spite of awareness of persistent physical or psychological problems; (10) tolerance, including need for increased amounts of opioids or diminished effect with continued use at the same

Prescription Drug Monitoring Programs

Exhibit 2: Prescription Drug Monitoring Programs

Light Blue -- States with PDMP’s
Dark Blue – States with PDMP legislation, but program not fully operational
Purple – No Legislation

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amount – as long as the patient is not taking opioids under medical supervision; and (11) withdrawal manifested by characteristic opioid withdrawal syndrome or taking opioids to relieve or avoid withdrawal symptoms – as long as the patient is not taking opioids under medical supervision.


**Withdrawal Scales**

There are a number of useful opioid withdrawal scales that can assist the clinician in evaluating patients with opioid use disorder by identifying and quantitating the severity of opioid withdrawal symptoms. The Objective Opioid Withdrawal Scale (OWS), which relies on clinical observation, is useful in measuring and documenting the objectively measurable symptoms of opioid withdrawal. The Subjective Opioid Withdrawal Scale (SOWS) records the patient’s rating of opioid withdrawal on a 16-item scale. Finally, the Clinical Opioid Withdrawal Scale (COWS) includes 11 items, and contains signs and symptoms of opioid withdrawal, which are both objective and subjective in nature.

**Urine Drug Testing**

Urine drug testing, or other reliable biological tests for the presence of drugs, during the initial evaluation and frequently throughout treatment, is highly recommended. There are a variety of toxicology tests available, some with greater and lesser reliability and validity. The person who is interpreting these labs should be very familiar with the methodology and the reliability. There is little research on the optimal frequency of testing. The recommendations given below are based on the consensus opinion of the Guideline Committee. The frequency of drug testing will be determined by a number of factors, including the stability of the patient, the type of treatment, the treatment setting, and the half-life of drugs in the matrix being tested. Patients will likely require more testing early in treatment or during periods of relapse. Patients participating in office-based treatment with buprenorphine may be tested at each office visit. Patients participating in treatment for opioid use disorder at Opioid Treatment Programs (OTPs) are mandated by the Federal law to receive a minimum of eight drug tests per year, but may be tested more frequently based on clinical need. More detailed information on drug testing is contained in “Drug Testing – A White Paper of the American Society of Addiction Medicine.”

Opioids are detectable in the urine for 1–3 days after use. A negative urine test combined with no history of withdrawal may indicate a lack of physical dependence. However, a negative urine test does not rule out opioid use, disorder, or physical dependence. Urine testing is also helpful to identify use of other psychoactive substances.

**Summary of Recommendations**

**Assessment Recommendations**

1. First clinical priority should be given to identifying and making appropriate referral for any urgent or emergent medical or psychiatric problem(s), including drug-related impairment or overdose.
2. Completion of the patient’s medical history should include screening for concomitant medical conditions including infectious diseases (hepatitis, HIV, and TB), acute trauma, and pregnancy.
3. A physical examination should be completed as a component of the comprehensive assessment process. The prescriber (the clinician authorizing the use of a medication for the treatment of opioid use disorder) may conduct this physical examination him/herself, or, in accordance with the ASAM Standards, ensure that a current physical examination is contained within the patient medical record before a patient is started on a new medication for the treatment of his/her addiction.
4. Initial laboratory testing should include a complete blood count, liver function tests, and tests for hepatitis C and HIV. Testing for TB and sexually transmitted infections should also be considered. Hepatitis B vaccination should be offered, if appropriate.
5. The assessment of women presents special considerations regarding their reproductive health. Women of childbearing age should be tested for pregnancy, and all women of childbearing potential and age should be queried regarding methods of contraception, given the increase in fertility that results from effective opioid use disorder treatment.
6. Patients being evaluated for addiction involving opioid use, and/or for possible medication use in the treatment of opioid use disorder, should undergo (or have completed) an assessment of mental health status and possible psychiatric disorders (as outlined in the ASAM Standards).
7. Opioid use is often co-occurring with other substance-related disorders. An evaluation of past and current substance use and a determination of the totality of substances that surround the addiction should be conducted.
8. The use of marijuana, stimulants, or other addictive drugs should not be a reason to suspend opioid use disorder treatment. However, evidence demonstrates that patients who are actively using substances during opioid use disorder treatment have a poorer prognosis. The use of benzodiazepines and other sedative hypnotics may be a reason to suspend agonist treatment because of safety concerns related to respiratory depression.
9. A tobacco use query and counseling on cessation of tobacco products and electronic nicotine delivery devices should be completed routinely for all patients, including those who present for evaluation and treatment of opioid use disorder.
10. An assessment of social and environmental factors should be conducted (as outlined in the ASAM Standards to identify facilitators and barriers to addiction treatment, and specifically to pharmacotherapy). Before a decision is made to initiate a course of pharmacotherapy for the patient with opioid use disorder, the patient should receive a multidimensional assessment in fidelity with the ASAM Criteria. Addiction should be considered a bio-psycho-social-spiritual illness, for which the use of medication(s) is but only one component of overall treatment.
Introduction

The diagnosis of opioid use disorder has been established, and it has been determined that the patient is medically and psychiatrically stable, the next task is to decide on a course of treatment. Potential treatments include withdrawal management in conjunction with psychosocial treatment, or psychosocial treatment combined with one of three medications: methadone, buprenorphine, or naltrexone (oral or extended-release injectable formulations). Withdrawal management alone can be the first step, but is not a primary treatment for opioid use disorder and should “only” be considered as a part of a comprehensive and longitudinal plan of care that includes psychosocial treatment, with or without medication-assisted therapy.

The choice among available treatment options should be a shared decision between the clinician and the patient. There are a number of factors to consider in deciding what treatment to choose. Among the first considerations are the priorities of the patient, for instance: Is the patient open to pharmacotherapy? What type of treatment setting does the patient prefer? Does the patient understand the physical dependence aspects of treatment medication? A patient’s past experiences with treatment for opioid use disorder should be considered as well. Of course, above all, evidence supporting the potential efficacy and safety of the various treatments is critically important.

For most patients with opioid use disorder, the use of medications (combined with psychosocial treatment) is superior to withdrawal management (combined with psychosocial treatment), followed finally by psychosocial treatment on its own. This is true for both agonist and partial agonist, and antagonist medications. Evidence suggests that methadone maintenance treatment is superior to withdrawal management alone and significantly reduces opioid drug use. Further, mortality is lower in patients on methadone, as compared to those not undergoing treatment. Methadone also lowers the risk of acquiring or spreading HIV infection.

In clinical studies, evidence favors buprenorphine, compared to no treatment, in decreasing heroin use and improving treatment retention. Finally, evidence supports the efficacy of both oral naltrexone and extended-release injectable naltrexone versus placebo for the treatment of opioid use disorder.

Pharmacotherapy Options

The medications covered in this guideline are mainly those that have been approved by the US FDA for the treatment of opioid dependence as defined in prior versions of the DSM-III and DSM-IV, and “not necessarily” the definition contained in the current version of the manual, the DSM-5. DSM-5 combined “opioid abuse” and “opioid dependence” criteria from prior versions of the DSM and included them in the new definition of “opioid use disorder.” As a result, pharmacologic treatment may not be appropriate for all patients along the entire opioid use disorder continuum.

The medications discussed in this Practice Guideline all have ample evidence supporting their safety and efficacy. It is recognized that other medications have been used off-label to treat opioid use disorder, but with some exceptions (clearly noted in the text) the Guideline Committee has not issued recommendations on the use of these medications. Cost-efficacy was not a consideration in the development of this Practice Guideline.

Each medication will be discussed in detail in subsequent sections:

1. Methadone (mu-agonist) for opioid use disorder treatment and withdrawal management (part 4).
2. Buprenorphine (partial mu-agonist) for opioid use disorder treatment and withdrawal management (part 5).
3. Naltrexone (antagonist) for relapse prevention (part 6).
4. Naloxone (antagonist) to treat overdose (part 13).

The only medication that is “not” US FDA-approved for the treatment of opioid use disorder that will be covered in this Practice Guideline is the use of the alpha-2 adrenergic agonist, clonidine, for the treatment of opioid withdrawal (see “Part 3: Treating Opioid Withdrawal”).

Key outcomes in evaluating the efficacy of the various pharmacotherapies include: decreased mortality,
abstinence from opioids, and retention in treatment. In regards to these key outcomes, there is some evidence supporting the relative efficacy of one medication over another, but in many cases, there are no good-quality studies comparing the relative benefits of one medication over another. As noted above, there is strong evidence supporting the superiority of methadone over drug-free treatment for reducing mortality, reducing opioid use, and promoting treatment retention.48

Efficacy Considerations

Treatment Setting

In accordance with US Federal laws and regulations derived from the Harrison Act and Congressional exceptions to that 1914 law, the venue in which treatment for opioid use disorder is provided is as important a consideration as is the specific medication selected (methadone vs. buprenorphine vs. naltrexone).49 Federal and state-licensed OTPs offer daily supervised dosing of methadone. OTPs are state and federally regulated to dispense opioid agonist treatment. An increasing number of such highly regulated programs also offer the option of daily supervised dosing of buprenorphine.

In accordance with Federal law 21 CFR §1306.07, office-based opioid treatment (OBOT), which provides authorization of medication via regular outpatient prescriptions filled in a retail pharmacy like any other prescription medication, is available for buprenorphine, but not for methadone. Physicians in private practices, or various other types of private and public sector clinics, can be authorized to prescribe outpatient supplies of the partial opioid agonist buprenorphine. This flexibility to provide OBOT is discussed more in “Part 5: Buprenorphine.” There are no regulations regarding facilities themselves, but rather of the individual physician who prescribes buprenorphine (see “Part 5: Buprenorphine” for physician qualifications associated with OBOT).

Naltrexone can be prescribed in any setting by any clinician with the authority to prescribe any medication. It is not listed among federal or state-controlled substances schedules, and there are no regulations of facilities or prescribers for the use of naltrexone in the treatment of opioid use disorder (such that there are for OTP and OBOT).

It is recommended that the clinician consider a patient’s psychosocial situation, co-occurring disorders, and opportunities for treatment retention versus risks of diversion when determining whether OTP or OBOT is most appropriate.

Pharmacology

Differences in efficacy may also arise from differences in pharmacology; whereas methadone is a full agonist at the mu-opioid receptor and produces higher levels of physiological dependence; buprenorphine is a partial agonist with less physiological dependence. There are few studies comparing the relative efficacy of methadone versus buprenorphine in reducing opioid use. Likewise, evidence supports the efficacy of naltrexone for relapse prevention compared to a placebo control.45,50 There is an absence of studies that compare treatment using either oral naltrexone or extended-release injectable naltrexone versus agonist treatment with either methadone or buprenorphine.

Contraindications and Precautions

The following section describes the major indications, contraindications, and precautions for methadone, buprenorphine, and naltrexone. This section is a summary and is not an exhaustive description of medication information. (Refer to Table 3 below for a summary of contraindications and precautions.)

Methadone

Methadone is frequently used to manage withdrawal symptoms from opioids and is recommended for pharmacological treatment of opioid use disorder (see “Part 4: Methadone”). Methadone is “contraindicated” for the following conditions:

1. Patients with known hypersensitivity to methadone hydrochloride.
2. Patients experiencing respiratory depression (in the absence of resuscitative equipment or in unmonitored settings).
3. Patients with acute bronchial asthma or hypercapnia (also known as hypercarbia).
4. Patients with known or suspected paralytic ileus.

Methadone should be used with “caution” for the following conditions:

1. Patients with decompensated liver disease (eg, jaundice, ascites) due to increased risk of hepatic encephalopathy.
2. Patients with respiratory insufficiency.
3. Patients with concomitant substance use disorders, particularly patients with sedative, hypnotic, or anxiolytic use disorders. Interactions between methadone and hypnotics, sedatives, or anxiolytics may be life-threatening.
4. Patients with concomitant psychiatric diagnoses that impair their ability to maintain daily attendance at an OTP.
5. Patients with low levels of physical dependence to opioids should be started with low doses of methadone.

Significant “medication interactions” to consider before starting methadone are as follows:

1. Methadone may prolong the QT interval and should be used in caution with other agents that may also prolong the QT interval. These include class I or class III antiarrhythmic drugs, calcium channel blockers, some antipsychotics, and some antidepressants.
2. Methadone is metabolized through the cytochrome P450 enzyme pathway. Many agents interact with this pathway including alcohol, anticonvulsants, antiretrovirals, and macrolide antibiotics.

Buprenorphine

Buprenorphine is a partial opioid agonist and mixed opioid agonist–antagonist. It is usually provided in a formulation that includes naloxone. Buprenorphine is recommended...
for pharmacological treatment of opioid use disorder (see “Part 5: Buprenorphine”).

Buprenorphine is also an effective treatment for opioid withdrawal with efficacy similar to methadone, and much superior to clonidine in opioid withdrawal management. Although one trial did find that longer courses of buprenorphine with gradual tapering were superior to rapid tapering for withdrawal,54 there is insufficient evidence on outcomes to make recommendations on buprenorphine taper duration.

Buprenorphine is “contraindicated” for the following conditions:

1. Patients with hypersensitivity to buprenorphine or any component of the formulation.
2. Patients with severe liver impairment are not good candidates for office-based treatment with buprenorphine. (Patients with hepatitis C infection who do not have severe liver impairment may, however, be considered for buprenorphine.)

Buprenorphine should be used with “caution” for the following conditions:

1. Patients in whom hepatitis has been reported, particularly in patients with previous hepatic dysfunction. A direct comparison of the effects of buprenorphine and methadone, however, showed no evidence of liver damage during the initial 6 months in either treatment groups.55 Monitoring liver function in patients at increased risk for hepatotoxicity may be considered.
2. Patients who, at present, have an alcohol use or sedative, hypnotic, or anxiolytic use disorder.
3. Patients with hypovolemia, severe cardiovascular disease, or taking drugs that may exaggerate hypotensive effects. Buprenorphine may cause hypotension, including orthostatic hypotension and syncope.

Significant “medication interactions” to consider before starting buprenorphine include the following:

Table 3. Contraindications and Precautions for Pharmacotherapy Options

<table>
<thead>
<tr>
<th>Medication</th>
<th>Contraindications</th>
<th>Warnings and Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methadone</td>
<td>Hypersensitivity, Respiratory depression, Severe bronchial asthma or hypercapnia</td>
<td>Cardiac conduction effects, Diversion and misuse are possible, Physical dependence, Respiratory depression when used in association with CNS depressants including alcohol, other opioids, and illicit drugs, Head injury and increased intracranial pressure, Liver disease, Respiratory insufficiency, Concomitant substance use disorders, Co-occurring psychiatric disorders</td>
</tr>
<tr>
<td>Buprenorphine (all formulations)</td>
<td>Hypersensitivity</td>
<td>Diversion and misuse are possible, Physical dependence, Respiratory depression when used in association with CNS depressants including alcohol, other opioids, and illicit drugs, Precipitated withdrawal if used in patients physically dependent on full agonists opioids before the agonist effects have worn off, Neonatal withdrawal has been reported after use of buprenorphine during pregnancy, Not recommended for patients with severe hepatic impairment, May cause sedation</td>
</tr>
<tr>
<td>Naltrexone (oral and injectable formulations)</td>
<td>Hypersensitivity reactions to naltrexone, or for injectable previous hypersensitivity reactions to polyactide-co-glycolide, carboxymethylcellulose, or any other constituent of the diluent, Patients currently physically dependent on opioids, including partial agonists, Patients receiving opioid analgesics, Patients in acute opioid withdrawal</td>
<td>Vulnerability to overdose, Injection site reactions associated with injectable naltrexone, Precipitated opioid withdrawal, Risk of hepatotoxicity, Patient should be monitored for the development of depression and suicidality, Emergency reversal of opiate blockade may require special monitoring in a critical care setting, Eosinophil pneumonia has been reported in association with injectable naltrexone, Administer IM injections with caution to patients with thrombocytopenia or a coagulation disorder</td>
</tr>
</tbody>
</table>

IM, intramuscular.
(1) Alcohol and sedatives, hypnotics, or anxiolytics may enhance the central nervous system depressive effect of buprenorphine.

(2) Buprenorphine is metabolized to nor-buprenorphine primarily by cytochrome CYP3A4; therefore, potential interactions may occur when buprenorphine is given concurrently with agents that affect CYP3A4 activity. The concomitant use of buprenorphine with CYP3A4 inhibitors (eg,azole antifungals such as ketoconazole, macrolide antibiotics such as erythromycin, and HIV protease inhibitors) should be monitored and may require dose reduction of one or both agents.56–58

**Naltrexone**

Naltrexone is recommended for pharmacological treatment of opioid use disorder (see “Part 6: Naltrexone”). Naltrexone is an opioid antagonist that blocks the effects of opioids. It is a pharmacotherapy option used to treat opioid use disorder and prevent relapse after detoxification. Naltrexone causes immediate withdrawal symptoms (precipitated withdrawal) in a person with active physical dependence on opioids. There are oral and extended-release injectable formulas of naltrexone. Oral naltrexone, if taken daily, is most effective in patients who are highly motivated or legally mandated to receive treatment, and/or when taking the medication. This formulation requires a once-monthly injection. Conversely, the efficacy of oral naltrexone for the treatment of opioid use disorder is often adversely affected by poor medication adherence.59 Clinicians may want to reserve using oral naltrexone for patients who are able to comply with special techniques to enhance their adherence, for example, observed dosing. An extended-release injectable naltrexone formulation is available, which may overcome the adherence limitations of the oral formulation. This formulation requires a once-monthly injection.

Naltrexone is “contraindicated” under the following conditions:

1. Patients with hypersensitivity reactions to naltrexone.
2. Patients who have previously exhibited hypersensitivity to naltrexone, polylactide-co-glycolide, carboxymethylcellulose, or any other components of the diluent (for extended-release injectable naltrexone).
3. Patients with current physical dependence on opioids, including partial agonists.
4. Patients with current physiologic opioid dependence.
5. Patients in acute opioid withdrawal.
6. Any individual who has failed the naloxone challenge test (see “Glossary”) or has a positive urine screen for opioids.

Naltrexone should be used with “caution” under the following conditions:

1. All patients should be warned of the risk of hepatic injury and advised to seek medical attention if they experience symptoms of acute hepatitis. Hepatic injury is a concern if very high doses are used, for example, 200–300 mg per day. Use of naltrexone should be discontinued in the event of symptoms and/or signs of acute hepatitis. Cases of hepatitis and clinically significant liver dysfunction were observed in association with naltrexone exposure during the clinical development program and in the postmarketing period.Transient, asymptomatic hepatic transaminase elevations were also observed in the clinical trials and postmarketing period.

2. Patients with liver impairment should complete liver enzyme tests before and during treatment with naltrexone to check for additional liver impairment.

3. Patients who experience injection site reactions should be monitored for pain, redness, or swelling. Incorrect administration may increase the risk of injection site reactions. Reactions have occurred with extended-release injectable naltrexone.

4. Patients with co-occurring psychiatric disorders should be monitored for adverse events. Suicidal thoughts, attempted suicide, and depression have been reported.

Significant “medication interactions” with naltrexone are as follows:

1. Naltrexone should not be used with methylnaltrexone or naloxegol.
2. Naltrexone blocks the effects of opioid analgesics because it is an opioid antagonist.
3. Glyburide may increase serum concentration of naltrexone. Monitor for increased toxicity effects of naltrexone.

**Summary of Recommendations**

1. The choice of available treatment options for addiction involving opioid use should be a shared decision between the clinician and the patient.
2. Clinicians should consider the patient’s preferences, past treatment history, and treatment setting when deciding between the use of methadone, buprenorphine, and naltrexone in the treatment of addiction involving opioid use. The treatment setting described as level 1 treatment in the ASAM Criteria may be a general outpatient location such as a clinician’s practice site. The setting as described as level 2 in the ASAM Criteria may be an intensive outpatient treatment or partial hospitalization program housed in a specialty addiction treatment facility, a community mental health center, or another setting. The ASAM Criteria describes level 3 or level 4 treatment, respectively, as a residential addiction treatment facility or hospital.
3. The venue in which treatment is provided is as important as the specific medication selected. OTPs offer daily supervised dosing of methadone, and increasingly of buprenorphine. In accordance with Federal law (21 CFR §1306.07), OBOT, which provides medication on a prescribed weekly or monthly basis, is limited to buprenorphine. Naltrexone can be prescribed in any setting by any clinician with the authority to prescribe any medication. Clinicians should consider a patient’s psychosocial situation, co-occurring disorders, and risk of diversion when determining whether OTP or OBOT is most appropriate.
4. OBOT may not be suitable for patients with active alcohol use disorder or sedative, hypnotic, or anxiolytic
use disorder (or who are in the treatment of addiction involving the use of alcohol or other sedative drugs, including benzodiazepines or benzodiazepine receptor agonists). It may also be unsuitable for persons who are regularly using alcohol or other sedatives, but do not have addiction or a specific substance use disorder related to that class of drugs. The prescribing of benzodiazepines or other sedative-hypnotics should be used with extreme caution in patients who are prescribed methadone or buprenorphine for the treatment of an opioid use disorder.

5) Methadone is recommended for patients who may benefit from daily dosing and supervision in an OTP, or for patients for whom buprenorphine for the treatment of opioid use disorder has been used unsuccessfully in an OTP or OBOT setting.

6) Oral naltrexone for the treatment of opioid use disorder is often adversely affected by poor medication adherence. Clinicians should reserve its use for patients who would be able to comply with special techniques to enhance their adherence, for example, observed dosing. Extended-release injectable naltrexone reduces, but does not eliminate, issues with medication adherence.

Areas for Further Research

More research is needed to compare the advantages of agonists and antagonists in the treatment of opioid use disorder. Whereas methadone, buprenorphine, and naltrexone are all superior to no treatment in opioid use disorder, less is known about their relative advantages.

PART 3: TREATING OPIOID WITHDRAWAL

Background

Opioid withdrawal syndrome refers to the wide range of symptoms that occur after stopping or dramatically reducing the dose of opioid drugs after heavy and prolonged use. For short-acting opioids such as heroin and oxycodone, symptoms usually emerge within 12 hours of the last opioid use, peak within 24–48 hours, and diminish over 3–5 days. For long-acting opioids such as methadone, withdrawal symptoms generally emerge within 30 hours of the last methadone exposure and may last up to 10 days. Although distressing, opioid withdrawal syndrome is rarely life-threatening. However, abrupt discontinuation of opioids is not recommended because it may precipitate withdrawal, lead to strong cravings, and result in relapse to drug use.

Symptoms of opioid withdrawal may include any of the following:

1) Muscle aches
2) Increased aches
3) Runny nose
4) Dilated pupils
5) Piloerection
6) Agitation
7) Anxiety
8) Insomnia
9) Sweating
10) Yawning
11) Abdominal cramping
12) Nausea
13) Vomiting
14) Diarrhea.

Opioid withdrawal generally results from the cessation or a dramatic reduction in the dose of opioids, which is referred to as spontaneous withdrawal. Opioid withdrawal can also be precipitated when a patient who is physically dependent on opioids is administered an opioid antagonist such as naloxone or naltrexone, or an opioid partial agonist such as buprenorphine. Signs and symptoms of precipitated withdrawal are similar to those of spontaneous withdrawal, but the time course is different and symptoms may be much more severe. Review of postmarketing cases of precipitated opioid withdrawal in association with treatment with naltrexone has identified cases with symptoms of withdrawal severe enough to require hospital admission, and in some cases, management in the intensive care unit.

The timing of maximal precipitated withdrawal usually occurs in the following scenarios:

1) Within 1 minute for intravenously administered naloxone.
2) Several minutes after IM naloxone.
3) Up to 90 minutes after sublingual buprenorphine.
4) Up to several hours after extended-release injectable naltrexone.

The duration of the withdrawal depends on the half-life and dose of the partial agonist or antagonist. Naloxone-precipitated withdrawal typically lasts for 30–60 minutes, whereas buprenorphine or naltrexone-precipitated withdrawal may last for several days. The ability to accurately assess patients for opioid withdrawal is important to avoid precipitated withdrawal when introducing antagonists and partial agonists for relapse prevention.

Withdrawal management can make withdrawal from opioids more comfortable. Given the high rate of relapse, opioid withdrawal management is not considered an effective treatment of opioid use disorder on its own. If withdrawal management alone, or withdrawal management followed by psychosocial treatment alone is proposed, the patient should be informed of the estimated risks of subsequent relapse, including the increased risk for death, as compared to treatment with opioid agonists. Withdrawal management is not necessary or recommended for patients being referred for treatment with methadone or buprenorphine.

Assessment of Patient for Opioid Withdrawal

Assessment of a patient undergoing opioid withdrawal should include a thorough medical history and physical examination focusing on signs and symptoms associated with opioid withdrawal. There are various scales available to assess opioid withdrawal. Objective signs, when present, are more reliable, but subjective withdrawal features can also be sensitive measures of opioid withdrawal. These scales may be
used to measure opioid withdrawal symptoms during the initial assessment to make the diagnosis of opioid withdrawal. In addition, clinicians can assess the effectiveness of withdrawal management by repeating these scales intermittently as they treat withdrawal symptoms.

**Objective Opioid Withdrawal Scale (OOWS)** is an objective measure in which the clinician checks for 13 signs of opioid withdrawal (eg, yawning, perspiration).  

**Clinical Opioid Withdrawal Scale (COWS)** is a clinical assessment for 11 medical signs and symptoms of opioid withdrawal (eg, gastrointestinal distress).  

**Subjective Opioid Withdrawal Scale (SOWS)** is a measure of 16 subjective symptoms of withdrawal, in which the patient rates their experience on a 5-point scale (eg, “I feel restless”).  

Opioid withdrawal management may occur in either inpatient or outpatient settings. There is a lack of evidence to determine the relative safety of inpatient versus outpatient withdrawal management. Inpatient withdrawal management has higher rates of completion compared to outpatient withdrawal management; however, there is no demonstrable difference in relapse among inpatient versus outpatient withdrawal management.

**Medications in Opioid Withdrawal**

For the management of opioid withdrawal, two main strategies have evolved. The first involves the provision of gradually tapering doses of opioid agonists, typically methadone or buprenorphine. The other strategy is the use of alpha-2 adrenergic agonists (clonidine) along with other non-narcotic medications to reduce withdrawal symptoms. Both strategies have advantages and disadvantages. Using tapering doses of opioid agonists has been shown to be superior to clonidine in terms of retention and opioid abstinence. However, the use of nonopioid medications may be the only option available to clinicians in some healthcare settings and may also facilitate the transition of patients to opioid antagonist medications and help prevent subsequent relapse. Recently, researchers have begun to investigate the use of combinations of buprenorphine and low doses of oral naltrexone to rapidly detoxify patients and facilitate the accelerated introduction of extended-release injectable naltrexone. Although these techniques seem promising, more research will be needed before these can be accepted as standard practice.

**Withdrawal Management with Opioid Agonists**

Methadone and buprenorphine are both recommended in the management of opioid withdrawal and have comparable results in terms of retention and opioid abstinence. Withdrawal management with methadone must be done in an OTP or inpatient setting. Methadone tapers generally start with doses in the range of 20–30 mg per day, and are completed in 6–10 days.

Buprenorphine withdrawal management can be done either in an outpatient or an inpatient setting. None of the available forms of buprenorphine, including the buprenorphine monoproducts (Suboxone, Zubsolv, and Bunavail), are specifically US FDA-approved for withdrawal management, but may be used for this purpose. None of the products have shown superiority over another for this purpose. In the remainder of this section, the term buprenorphine refers to the monotherapy and combination formulations.

Buprenorphine is a partial mu-opioid receptor antagonist with a higher affinity for the mu-receptor than most full agonists such as heroin and oxycodone. Therefore, it is important that buprenorphine should not be started until a patient is exhibiting opioid withdrawal to avoid precipitated withdrawal. Usually buprenorphine is not started until 12–18 hours after the last dose of a short-acting agonist such as heroin or oxycodone, and 24–48 hours after the last dose of a long-acting agonist such as methadone. A dose sufficient to suppress withdrawal symptoms is achieved (4–16 mg per day) and then the dose is tapered. The duration of the taper can be as brief as 3–5 days or as long as 30 days or more.

Studies examining the relative efficacy of long versus short-duration tapers are not conclusive, and the Guideline Committee was unable to reach a consensus on this issue. Physicians should be guided by patient response in determining the optimum duration of the taper.

**Withdrawal Management with Alpha-2 Adrenergic Agonists**

Because opioid withdrawal results largely from overactivity of the brain’s noradrenergic system, alpha-2 adrenergic agonists (clonidine, lofexidine) have a long history of off-label use for the treatment of opioid withdrawal in the United States. Lofexidine is approved for the treatment of opioid withdrawal in the United Kingdom. Clonidine is generally used at doses of 0.1–0.3 mg every 6–8 hours, with a maximum dose of 1.2 mg daily. Its hypotensive effects often limit the amount that can be used. Clonidine is often combined with other non-narcotic medications targeting specific opioid withdrawal symptoms such as benzodiazepines for anxiety, loperamide or bismuth-salycilate for diarrhea, acetaminophen or nonsteroidal anti-inflammatory medications (NSAIDs) for pain, various medications for insomnia, and ondansetron for nausea. Other agents in the same pharmacological family as clonidine, such as guanfacine (available in the United States) and lofexidine (available in many other countries) can be used off-label as safe and effective agents in the management of opioid withdrawal.

**Anesthesia-Assisted Withdrawal Management**

Anesthesia-assisted opioid detoxification or ultra-rapid opioid detoxification (UROD) uses large doses of naloxone to precipitate acute opioid withdrawal in the patient who is under general anesthesia. Patients are anesthetized, then intubated and mechanically ventilated. A diuretic is used to enhance excretion of the opioid. Patients experience mild withdrawal symptoms for about 6 days after awakening from anesthesia, compared with similar withdrawal symptoms on a 20-day methadone taper.

The ASAM recommends against the use of UROD in the treatment of opioid withdrawal and stated these same recommendations in a policy statement. ASAM’s position is in accordance with other guidelines. Serious complications including cardiac arrest and death have been reported with anesthesia-assisted withdrawal management. The Centers for
Disease Control issued a warning in 2013 about severe adverse events including death from anesthesia-assisted withdrawal management. Furthermore, a systematic review of five randomized trials concluded that the lack of benefit, potential serious harms, and costs of heavy sedation or anesthesia do not support its use.

Summary of Recommendations

1. Using medications for opioid withdrawal management is recommended over abrupt cessation of opioids. Abrupt cessation of opioids may lead to strong cravings, which can lead to continued use.

2. Patients should be advised about risk of relapse and other safety concerns from using opioid withdrawal management as standalone treatment for opioid use disorder. Opioid withdrawal management on its own is not a treatment method.

3. Assessment of a patient undergoing opioid withdrawal management should include a thorough medical history and physical examination focusing on signs and symptoms associated with opioid withdrawal.

4. Opioid withdrawal management in cases in which methadone is used to manage withdrawal symptoms must be done in an inpatient setting or in an OTP. For short-acting opioids, tapering schedules that decrease in daily doses of prescribed methadone should begin with doses between 20 and 30 mg per day, and should be completed in 6–10 days.

5. Opioid withdrawal management in cases in which buprenorphine is used to manage withdrawal symptoms should not be initiated until 12–18 hours after the last dose of a short-acting agonist such as heroin or oxycodone, and 24–48 hours after the last dose of a long-acting agonist such as methadone. A dose of buprenorphine sufficient to suppress withdrawal symptoms is given (this can be 4–16 mg per day) and then the dose is tapered. The duration of the tapering schedule can be as brief as 3–5 days or as long as 30 days or more.

6. The use of combinations of buprenorphine and low doses of oral naltrexone to manage withdrawal and facilitate the accelerated introduction of extended-release injectable naltrexone has shown promise. More research will be needed before this can be accepted as standard practice.

7. The Guideline Committee recommends, based on consensus opinion, the inclusion of clonidine as a recommended practice to support opioid withdrawal. Clonidine is not US FDA-approved for the treatment of opioid withdrawal, but it has been extensively used off-label for this purpose. Clonidine may be used orally or transdermally at doses of 0.1–0.3 mg every 6–8 hours, with a maximum dose of 1.2 mg daily to assist in the management of opioid withdrawal symptoms. Its hypotensive effects often limit the amount that can be used. Clonidine can be combined with other non-narcotic medications targeting specific opioid withdrawal symptoms such as benzodiazepines for anxiety, loperamide for diarrhea, acetaminophen or NSAIDs for pain, and ondansetron or other agents for nausea.

8. Opioid withdrawal management using anesthesia UROD is not recommended due to high risk for adverse events or death. Naltrexone-facilitated opioid withdrawal management can be a safe and effective approach, but should be used only by clinicians experienced with this clinical method and in cases in which anesthesia or conscious sedation are not being employed.

Areas for Further Research

1. Further research is needed to evaluate the efficacy and safety of alpha-2 adrenergic and other nonopioid medications that are being used off-label for withdrawal management. These nonopioid medications may have use in transitioning patients onto antagonists for relapse prevention.

2. Further study is needed on other methods to accelerate the withdrawal process and facilitate the introduction of antagonists.

3. More research is needed to make recommendations on the optimal duration of a buprenorphine taper.

4. More research is needed to evaluate the safety of inpatient as compared to outpatient withdrawal management.

5. More research is needed to compare the effectiveness of short versus long tapers with buprenorphine withdrawal management.

PART 4: METHADONE

Background

Methadone (Dolophine or Methadose) is a slow-acting opioid agonist. Methadone is an effective treatment for opioid withdrawal management and the treatment of opioid use disorder. Methadone is taken orally so that it reaches the brain slowly, dampening the euphoria that occurs with other routes of administration while preventing withdrawal symptoms. Methadone has been used since the 1960s to treat heroin addiction and remains an effective treatment option. Many studies have demonstrated its superiority to using abstinence-based approaches. Methadone is only available through approved OTPs, where it is dispensed to patients on a daily or almost daily basis in the initial stages of treatment. Federal and State laws allow take-home doses for patients who have demonstrated treatment progress and are judged to be at low risk for diversion.

Patient Selection and Treatment Goals

Treatment with methadone at an OTP is recommended for patients who have opioid use disorder, are able to give informed consent, and have no specific contraindications for agonist treatment. Treatment with methadone has the following four goals:

1. To suppress opioid withdrawal.
2. To block the effects of illicit opioids.
3. To reduce opioid craving and stop or reduce the use of illicit opioids.
4. To promote and facilitate patient engagement in recovery-oriented activities including psychosocial intervention.

Precautions

Arrhythmias

Patients should be informed of the potential risk of arrhythmia when they are dispensed methadone. It is
recommended to get a history of structural heart disease, arrhythmia, or syncope. In addition, the clinician should assess the patient for other risk factors for QT-interval prolongation. An electrocardiogram (ECG) should be considered when high doses of methadone (over 120 mg per day) are being employed, there is a history of prolonged QT interval, or the patient is taking medications known to prolong the QT. However, there is no research on the use of ECG data for improving patient outcomes.

Course of Treatment

Induction

Initial dosing depends on the level of physical dependence. Consequently, induction varies widely. In a recent publication prepared by ASAM’s Methadone Action Group, the recommended initial dose ranges from 10 to 30 mg, with reassessment in 2–4 hours when peak levels have been reached.72

Given the risk of overdose in the first 2 weeks, tolerance is an important safety consideration. Federal law mandates that the initial dose cannot exceed 30 mg and not exceed 40 mg in 1 day.39

Dosing

Methadone has a long half-life and care must be taken to avoid too rapid dose increases during the first 1–3 weeks of treatment so as to avoid increasing the dose before the full effect of the last dose has been realized. Dosing should be based on patients achieving goals of treatment, can vary widely between patients, and doses do not correlate well with blood levels. Trough and peak plasma levels of methadone (or methadone blood levels) may be used in addition to clinical evaluation to assess the safety and adequacy of a patient’s dose, particularly in patients who seem to be rapid metabolizers and may need a split dose.15,73–76 A relatively low dose of methadone (eg, <30 mg per day) can lessen acute opioid withdrawal, but is often not effective in suppressing craving and blocking the effects of other opioids. Most patients fare better on methadone doses between 60 and 120 mg per day, which typically creates sufficient tolerance to minimize a euphoric response if patients self-administer additional opioids.

A relatively low dose of methadone (eg, <30 mg per day) can lessen acute withdrawal, but is often not effective in suppressing craving and blocking the effects of other opioids. Though a few patients respond to a maintenance dose of 30–60 mg per day, most patients fare better if their initial 30–40 mg per day dose is gradually raised to a maintenance level of 60–120 mg per day, which typically creates sufficient tolerance to minimize a euphoric response if patients self-administer additional opioids. Multiple randomized trials have found that patients have better outcomes, including retention in treatment, with higher doses (80–100 mg per day) than lower doses.27,78 Though not well studied, doses above 120 mg per day are being used with some patients as blockade of opioid effects is becoming increasingly more difficult due to the increased purity of heroin and strength of prescription opioids.72

Adverse Effects

Higher methadone doses may be associated with increased risk of adverse effects, including prolongation of the QT interval and other arrhythmias (torsades des pointes), which in some cases have been fatal.79 The US FDA issued a safety alert for methadone regarding these cardiac events.80 Clinicians, in consultation with patients, may need to consider the relative risk of adverse events due to QT prolongation with methadone as compared to the risk of morbidity and mortality of an untreated opioid use disorder.81 Changing to buprenorphine or naltrexone maintenance should be considered when risks of QT prolongation are high as they do not seem to significantly prolong the QT.

Psychosocial Treatment

Because opioid use disorder is a chronic relapsing disease, strategies specifically directed at relapse prevention are an important part of comprehensive outpatient treatment and should include drug counseling and/or other psychosocial treatments. However, there may be instances when pharmacotherapy alone results in an excellent outcome.

Family involvement in treatment provides strong support for patient recovery; and family members also benefit. The concept of “family” should be expanded to include members of the patient’s social network (as defined by the patient), including significant others, clergy, employers, and case managers.

Monitoring Treatment

Federal and state-approved OTPs dispense methadone and supervise administration. Treatment should include relapse monitoring with frequent testing for alcohol and other relevant psychoactive substances. Testing for methadone and buprenorphine is recommended to ensure adherence and detect possible diversion.

Length of Treatment

The optimal duration of treatment with methadone has not been established; however, it is known that relapse rates are high for most patients who drop out; thus long-term treatment is often needed. Treatment duration depends on the response of the individual patient and is best determined by collaborative decisions between the clinician and the patient. Treatment should be reinitiated immediately for most patients who were previously taking methadone and have relapsed or are at risk for relapse.

Switching Treatment Medications

Switching from methadone to other opioid treatment medications may be appropriate in the following cases:

1. Patient experiences intolerable methadone side effects.
2. Patient has not experienced a successful course of treatment on methadone.
3. Patient wants to change and is a candidate for the alternative treatment.

Transfer of medications should be planned, considered, and monitored. Particular care should be taken in reducing...
methadone dosing before transfer to avoid precipitating a relapse. If the patient becomes unstable and appears at risk for relapse during the transfer of medications, reinstituting methadone may be the best option.

**Switching to Buprenorphine**

Patients on low doses of methadone (30–40 mg per day or less) generally tolerate the transition to buprenorphine with minimal discomfort; whereas patients on higher doses of methadone may find that switching causes significant discomfort. Patients should be closely monitored during such a switch because there is a risk that stable methadone patients may become unstable when changing to buprenorphine.

To minimize the risk of precipitated withdrawal, it is recommended that physicians use careful initial dosing followed by rapid titration up to an appropriate maintenance dose. Because of concern that sublingually-absorbed naloxone could increase the risk of precipitated withdrawal, treatment initiation with buprenorphine monoproduct is recommended for patients transitioning from methadone and any other long-acting opioid. Patients should be experiencing mild to moderate opioid withdrawal before the switch. This would typically occur at least 24 hours after the last dose of methadone, and indicates that sufficient time has elapsed for there to be minimal risk that the first dose of buprenorphine will precipitate significant withdrawal. Moderate withdrawal would equate to a score greater than 12 on the COWS.54

An initial dose of 2–4 mg of buprenorphine should be given and the patient should be observed for 1 hour. If withdrawal symptoms improve, the patient can be dispensed two additional 2–4-mg doses to be taken as needed. The prescribing doctor should contact the patient later in the day to assess the response to dosing. The likelihood of precipitating withdrawal on commencing buprenorphine is reduced as the time interval between the last methadone dose and the first buprenorphine dose increases.

**Switching to Naltrexone**

Patients switching from methadone to oral naltrexone or extended-release injectable naltrexone need to be completely withdrawn from methadone and other opioids before they can receive naltrexone. This may take up to 14 days, but can typically be achieved in 7 days.82 A naloxone challenge (administration of 0.4–0.8 mg naloxone and observation for precipitated withdrawal) may be useful before initiating treatment with naltrexone to document the absence of physiological dependence and to minimize the risk for precipitated withdrawal (see “Glossary” for more on naloxone challenge).

**Summary of Recommendations**

1. Methadone is a treatment option recommended for patients who are physiologically dependent on opioids, able to give informed consent, and who have no specific contraindications for agonist treatment when it is prescribed in the context of an appropriate plan that includes psychosocial intervention.

2. The recommended initial dose ranges for methadone are from 10 to 30 mg, with reassessment in 3–4 hours and a second dose not to exceed 10 mg on the first day if withdrawal symptoms are persisting.

3. The usual daily dosage of methadone ranges from 60 to 120 mg. Some patients may respond to lower doses and some may need higher doses. Dosage increases in 5–10-mg increments applied no more frequently than every 7 days (depending on clinical response) are necessary to avoid oversedation, toxicity, or even iatrogenic overdose deaths.

4. The administration of methadone should be monitored because unsupervised administration may lead to misuse and diversion. OTP regulations require monitored medication administration until the patient’s clinical response and behavior demonstrate that the prescribing of nonmonitored doses is appropriate.

5. Psychosocial treatment, though sometimes minimally needed, should be implemented in conjunction with the use of methadone in the treatment of opioid use disorder.

6. Methadone should be reconstituted immediately if relapse occurs, or when an assessment determines that the risk of relapse is high for patients who previously received methadone in the treatment of opioid use disorder, but who are no longer prescribed such treatment.

7. Strategies directed at relapse prevention are an important part of comprehensive addiction treatment and should be included in any plan of care for a patient receiving active opioid treatment or ongoing monitoring of the status of their addictive disease.

8. Switching from methadone to another medication for the treatment of opioid use disorder may be appropriate if the patient experiences intolerable side effects or is not successful in attaining or maintaining treatment goals through the use of methadone.

9. Patients switching from methadone to buprenorphine in the treatment of opioid use disorder should be on low doses of methadone before switching medications. Patients on low doses of methadone (30–40 mg per day or less) generally tolerate transition to buprenorphine with minimal discomfort, whereas patients on higher doses of methadone may experience significant discomfort in switching medications.

10. Patients switching from methadone to oral naltrexone or extended-release injectable naltrexone must be completely withdrawn from methadone and other opioids, before they can receive naltrexone. The only exception would apply when an experienced clinician receives consent from the patient to embark on a plan of naltrexone-facilitated opioid withdrawal management.

11. Patients who discontinue agonist therapy with methadone or buprenorphine and then resume opioid use should be made aware of the risks associated with opioid overdose, and especially the increased risk of death.

**Areas for Further Research**

1. Further research is needed to assess the effectiveness of added psychosocial treatment to treatment with methadone in OTP or inpatient settings. Treatment with methadone generally includes some psychosocial components.
However, it is unclear whether added psychosocial treatment improves patient outcomes. (2) Research is needed to evaluate the use of ECG in treatment with methadone in preventing adverse events.

PART 5: BUPRENORPHINE

Background
Buprenorphine is recommended for the treatment of opioid use disorder. Buprenorphine relieves drug cravings without producing the euphoria or dangerous side effects of other opioids. In addition to its pharmacological properties, an important feature of buprenorphine is its ability to be prescribed in office-based treatment settings. The US FDA approved buprenorphine in 2002, making it the first medication eligible to be prescribed by certified physicians through the Drug Addiction Treatment Act of 2000 (DATA 2000). Through DATA 2000, physicians may apply for waivers to prescribe certain narcotic schedule III, IV, or V medications, including buprenorphine, from their office settings. This provision of the act expands accessibility of community-based treatment options and mitigates the need to receive treatment through more specialized, and often less available, OTPs. However, buprenorphine may also be administered in an OTP setting with structure and administration requirements identical to those for methadone.

Formulations of Buprenorphine
For this Practice Guideline, recommendations using the term “buprenorphine” will refer generally to both the buprenorphine only and the combination buprenorphine/naloxone formulations. When recommendations differ by product, the type of product will be described. The monoprotect (generic name buprenorphine) will be referred to as “buprenorphine monoprotect.” The combination product will be referred to as “combination buprenorphine/naloxone.”

This Practice Guideline recommends using combination buprenorphine/naloxone for withdrawal management and treatment of opioid use disorder, with the exception of treatment for pregnant women. (Buprenorphine monoproduct is recommended for pregnant women, because naloxone in the combination product is not recommended for use by pregnant women.) (See “Part 8: Special Populations: Pregnant Women.”) Combination buprenorphine contains naloxone (an opioid antagonist), which is included to discourage intravenous misuse of buprenorphine. If a patient who is physically dependent on a full agonist opioid injects buprenorphine/naloxone, the naloxone will induce withdrawal symptoms. These withdrawal symptoms are averted when buprenorphine/naloxone is taken sublingually as prescribed.

A combination product of buprenorphine and naloxone (Zubsolv, Bunavail) have different bioavailability and have different buprenorphine/naloxone dose strengths. The approved doses of Zubsolv and Bunavail are bioequivalent to the doses of Suboxone discussed in this guideline. Bioequivalence information and charts are contained in Appendix II.

All information provided in this section is based on dosages for the generic equivalents of buprenorphine/naloxone sublingual tablets and buprenorphine sublingual tablets. Because of the possibility of slight differences in bioavailability between the different formulations of buprenorphine, patients switching from one form of buprenorphine to another should be monitored for adverse effects.

Patient Selection and Treatment Goals
Buprenorphine is an effective treatment recommended for patients who have opioid use disorder, are able to give informed consent, and have no specific contraindications for agonist treatment. Treatment with buprenorphine has the following four goals:

(1) To suppress opioid withdrawal.
(2) To block the effects of illicit opioids.
(3) To reduce opioid craving and stop or reduce the use of illicit opioid.
(4) To promote and facilitate patient engagement in recovery-oriented activities including psychosocial intervention.

There is ample evidence for the efficacy of buprenorphine for the treatment of opioid use disorder. The risk of lethal overdose in an opioid-tolerant individual on buprenorphine is substantially less than that associated with the use of other opioid medications such as methadone. This is due to the ceiling effects of buprenorphine across a wide range of doses. Consequently, buprenorphine has been approved for OBOT.

Precautions

Alcohol or Sedative, Hypnotic, or Anxiolytic Use
Some studies have shown potential adverse interactions between buprenorphine and sedatives. Therefore, patients with opioid use disorder and concurrent alcohol, sedative, hypnotic, or anxiolytic use disorders should receive more intensive monitoring during office-based treatment with buprenorphine to minimize the risk of adverse events. Alternatively, patients with these co-occurring disorders may be better treated in a setting with greater supervision such as an OTP.

Course of Treatment
The DATA 2000 allows physicians who are trained or experienced in opioid addiction treatment to obtain waivers to prescribe certain schedule III, IV, or V narcotic drugs in the Controlled Substances Act, for the treatment of opioid dependence in their office practices or in a clinic setting. Both buprenorphine monoproduct and combination buprenorphine/naloxone are approved by the US FDA for the treatment of opioid dependence and can be used in settings outside of an OTP. Physicians who wish to prescribe buprenorphine monoproduct or combination buprenorphine/naloxone for the treatment of opioid use disorder or withdrawal management must qualify for a waiver under DATA 2000. Physicians with
approved DATA 2000 waivers are not confined to the office-based setting. Physicians with DATA 2000 waivers may treat opioid addiction with approved buprenorphine products in any outpatient practice settings in which they are otherwise credentialed to practice and in which such treatment would be medically appropriate. This flexibility for place of services is referred to as OBOT. Physicians who qualify for DATA 2000 waivers are initially limited in the number of patients they can treat, but after 1 year may apply for a waiver to treat more (see “Exhibit 4: Physician Qualifications for OBOT”).

**Exhibit 4: Physician Qualifications for OBOT**

To qualify for a DATA 2000 waiver, a physician must hold a current, valid state medical license and a drug enforcement agency (DEA) registration number.

In addition, the physician must meet at least one of the following criteria outlined by the US Department of Health and Human Services, Substance Abuse, and Mental Health Services Administration:

1. The physician holds a subspecialty board certification in addiction psychiatry from the American Board of Medical Specialties.
2. The physician holds an addiction certification from the ASAM. (ASAM certification was taken over by the American Board of Addiction Medicine (ABAM) in 2007.)
3. The physician holds a subspecialty board certification in addiction medicine from the American Osteopathic Association.
4. The physician has, with respect to the treatment and management of opioid-addicted patients, completed not less than 8 hours of training (through classroom situations, seminars at professional society meetings, electronic communications, or otherwise) that is provided by the ASAM, the American Academy of Addiction Psychiatry, the American Medical Association, the American Osteopathic Association, the American Psychiatric Association, or any other organization that the Secretary determines is appropriate for purposes of this subclause.
5. The physician has participated as an investigator in one or more clinical trials leading to the approval of a narcotic drug in schedule III, IV, or V for maintenance or detoxification treatment, as demonstrated by a statement submitted to the Secretary by the sponsor of such approved drug.
6. The physician has such other training or experience as the State medical licensing board (of the State in which the physician will provide maintenance or detoxification treatment) considers to demonstrate the ability of the physician to treat and manage opioid-addicted patients.
7. The physician has such other training or experience as the Secretary considers to demonstrate the ability of the physician to treat and manage opioid-addicted patients. Any criteria of the Secretary under this subclause shall be established by regulation. Any such criteria are effective only for 3 years after the date on which the criteria are promulgated, but may be extended for such additional discrete 3-year periods as the Secretary considers appropriate for purposes of this subclause. Such an extension of criteria may only be effectuated through a statement published in the Federal Register by the Secretary during the 30-day period preceding the end of the 3-year period involved.

More detailed information can be found at the web site: http://buprenorphine.samhsa.gov/waiver_qualifications.html

**Induction**

The buprenorphine monoproduct and Suboxone film are the only medications approved by the US FDA for induction. However, other forms of the combination product have been used by clinicians in patients addicted to short-acting opioids without other complications. Because of concern that sublingually-absorbed naloxone could increase the risk of precipitated withdrawal, treatment initiation with buprenorphine monopoduct is recommended for patients transitioning from methadone and any other long-acting opioid, and patients with hepatic impairment.

Buprenorphine has a higher affinity for the mu-opioid receptor compared to most full opioid agonists. Because buprenorphine is a partial mu-agonist, the risk of overdose during buprenorphine induction is low. However, buprenorphine will displace full agonists from the receptor with resultant reduction in opioid effects. Thus, some patients may experience precipitated withdrawal if insufficient time has elapsed since their last dose of opioids.

Patients should wait until they are experiencing mild to moderate opioid withdrawal before taking the first dose of buprenorphine to reduce the risk of precipitated withdrawal. Generally, buprenorphine initiation should occur at least 6–12 hours after the last use of heroin or other short-acting opioids, or 24–72 hours after their last use of long-acting opioids such as methadone. The use of the COWS can be helpful in determining if patients are experiencing mild to moderate withdrawal. A COWS score of 11–12 or more (mild to moderate withdrawal) is indicative of sufficient withdrawal to allow a safe and comfortable induction onto buprenorphine.

Induction within the clinician’s office is recommended to reduce the risk of precipitated opioid withdrawal. Office-based induction is also recommended if the patient or physician is unfamiliar with buprenorphine. However, buprenorphine induction may be done by patients within their own homes. Home-based induction is recommended only if the patient or prescribing physician is experienced with the use of buprenorphine. The recommendation supporting home induction is based on the consensus opinion of the Guideline Committee.

**Dosing**

**At Induction**

The risk of precipitated withdrawal can be reduced by using a lower initial dose of buprenorphine. It is recommended that induction start with a dose of 2–4 mg, and that the patient is observed for signs of precipitated withdrawal. If 60–90 minutes have passed without the onset of withdrawal symptoms, then additional dosing can be done in increments of 2–4 mg. Repeat of the COWS during induction can be useful in assessing the effect of buprenorphine doses. Once it has been established that
the initial dose is well tolerated, the buprenorphine dose can be increased fairly rapidly to a dose that provides stable effects for 24 hours and is clinically effective.

**After Induction**

On average, buprenorphine doses after induction and titration are usually at least 8 mg per day. However, if patients are continuing to use opioids, consideration should be given to increasing the dose by 4–8 mg (daily dose of 12–16 mg or higher). The US FDA approves dosing to a limit of 24 mg per day, and there is limited evidence regarding the relative efficacy of higher doses. In addition, the use of higher doses may increase the risk of diversion.

**Adverse Effects**

Buprenorphine and combinations of buprenorphine and naloxone are generally well tolerated. Side effects reported with these medications include headache, anxiety, constipation, perspiration, fluid retention in lower extremities, urinary hesitancy, and sleep disturbance. Unlike treatment with methadone, QT-interval prolongation does not seem to be an adverse effect associated with treatment with buprenorphine.

**Psychosocial Treatment**

Psychosocial treatment is recommended for all patients. The types and duration of psychosocial treatment will vary, and the topic is discussed further in “Part 7: Psychosocial Treatment in Conjunction With Medications for the Treatment of Opioid Use Disorder.”

**Monitoring Treatment**

Patients should be seen frequently at the beginning of their treatment. Weekly visits (at least) are recommended until patients are determined to be stable. The stability of a patient is determined by an individual clinician based on a number of indicators which may include abstinence from illicit drugs, participation in psychosocial treatment and other recovery-based activities, and good occupational and social functioning. Stable patients can be seen less frequently but should be seen at least monthly.

Accessing PDMP data is advisable to check for other medications that the patient may be receiving. Due to the variation in state PDMP laws, clinicians are encouraged to be familiar with the legal requirements associated with PDMPs and prescribing of controlled substances in their state (see “Exhibit 2” in “Part 1: Assessment and Diagnosis of Opioid Use Disorder”). In addition, objective measurement of body fluids for the presence of buprenorphine and illicit drugs of misuse is recommended.

Urine drug testing is a reasonably practical and reliable method to test for buprenorphine and illicit drugs. However, other reliable biological tests for the presence of drugs may be used. It is recommended that patients be tested often and that testing should be done for buprenorphine, substances such as heroin and marijuana, and prescription medications including benzodiazepines, prescription opioids, and amphetamines. How often and exactly what drugs should be tested for to optimize treatment has not been definitively established and is a topic that should be researched further (please see “Drug Testing a White Paper of the American Society of Addiction Medicine for detail on types of drug testing”).

Clinicians should take steps to reduce the chance of diversion. Diversion has been reported with buprenorphine monotherapy and combination buprenorphine/naloxone. Strategies to reduce the potential of diversion include: frequent office visits, urine drug testing including testing for buprenorphine and metabolites, observed dosing, and recall visits for pill counts. Patients receiving treatment with buprenorphine should be counseled to have adequate means to secure their medications to prevent theft. Unused medication should be disposed of safely.

**Length of Treatment**

There is no recommended time limit for treatment with buprenorphine. Buprenorphine taper and discontinuation is a slow process and close monitoring is recommended. Buprenorphine tapering is generally accomplished over several months. Patients and clinicians should not take the decision to terminate treatment with buprenorphine lightly. Factors associated with successful termination of treatment with buprenorphine are not well described, but may include the following:

1. Employment, engagement in mutual help programs, or involvement in other meaningful activities.
2. Sustained abstinence from opioid and other drugs during treatment.
3. Positive changes in the psychosocial environment.
4. Evidence of additional psychosocial supports.
5. Persistent engagement in treatment for ongoing monitoring past the point of medication discontinuation.

Patients who relapse after treatment has been terminated should be returned to treatment with buprenorphine.

**Switching Treatment Medications**

Buprenorphine is generally tolerated well by patients. Switching from buprenorphine to other opioid treatment medications may be appropriate in the following cases:

1. Patient experiences intolerable side effects.
2. Patient has not experienced a successful course of treatment in attaining or maintaining goal through the initially chosen pharmacotherapy option.
3. Patient requires a greater level of supervision or services than office-based buprenorphine offers.
4. Patient wants to change and is a candidate for treatment.

**Switching to Naltrexone**

Buprenorphine has a long half-life; 7–14 days should elapse between the last dose of buprenorphine and the start of naltrexone to ensure that the patient is not physically dependent on opioids before starting naltrexone. It may be useful to conduct a naloxone challenge (see “Glossary”) before starting naltrexone to demonstrate an absence of physical dependence. Recently, investigators have begun to evaluate newer methods of rapidly transitioning patients from buprenorphine to naltrexone using repeated dosing over several days with very low doses of naltrexone along with ancillary medications.
Although the results are promising, it is too early to recommend these techniques for general practice, and the doses of naltrexone used may not be readily available to most clinicians.

**Switching to Methadone**

Transitioning from buprenorphine to methadone is less problematic because the addition of a full mu-opioid agonist to a partial agonist does not typically result in any type of adverse reaction. There is no time delay required in transitioning a patient from buprenorphine to treatment with methadone.

**Summary of Recommendations**

1. Opioid-dependent patients should wait until they are experiencing mild to moderate opioid withdrawal before taking the first dose of buprenorphine to reduce the risk of precipitated withdrawal. Generally, buprenorphine initiation should occur at least 6–12 hours after the last use of heroin or other short-acting opioids, or 24–72 hours after their last use of long-acting opioids such as methadone.

2. Induction of buprenorphine should start with a dose of 2–4 mg. Dosages may be increased in increments of 2–4 mg.

3. Clinicians should observe patients in their offices during induction. Emerging research, however, suggests that many patients need “not” be observed and that home buprenorphine induction may be considered. Home-based induction is recommended only if the patient or prescribing physician is experienced with the use of buprenorphine. This is based on the consensus opinion of the Guideline Committee.

4. Buprenorphine doses after induction and titration should be, on average, at least 8 mg per day. However, if patients are continuing to use opioids, consideration should be given to increasing the dose by 4–8 mg (daily doses of 12–16 mg or higher). The US FDA approves dosing to a limit of 24 mg per day, and there is limited evidence regarding the relative efficacy of higher doses. In addition, the use of higher doses may increase the risk of diversion.

5. Psychosocial treatment should be implemented in conjunction with the use of buprenorphine in the treatment of opioid use disorder.

6. Clinicians should take steps to reduce the chance of buprenorphine diversion. Recommended strategies include frequent office visits (weekly in early treatment), urine drug testing including testing for buprenorphine and metabolites, and recall visits for pill counts.

7. Patients should be tested frequently for buprenorphine, other substances, and prescription medications. Accessing PDMP data may be useful for monitoring.

8. Patients should be seen frequently at the beginning of their treatment. Weekly visits (at least) are recommended until patients are determined to be stable. There is no recommended time limit for treatment.

9. Buprenorphine taper and discontinuation is a slow process and close monitoring is recommended. Buprenorphine tapering is generally accomplished over several months. Patients should be encouraged to remain in treatment for ongoing monitoring past the point of discontinuation.

10. When considering a switch from buprenorphine to naltrexone, 7–14 days should elapse between the last dose of buprenorphine and the start of naltrexone to ensure that the patient is not physically dependent on opioids before starting naltrexone.

11. When considering a switch from buprenorphine to methadone, there is no required time delay because the addition of a full mu-opioid agonist to a partial agonist does not typically result in any type of adverse reaction.

12. Patients who discontinue agonist therapy and resume opioid use should be made aware of the risks associated with an opioid overdose, and especially the increased risk of death.

**Areas for Further Research**

Further research is needed to evaluate the safety and efficacy of buprenorphine induction conducted in the patient’s own home, although current research supports this practice in select cases.

**PART 6: NALTREXONE**

**Background**

Naltrexone is a long-acting opioid antagonist that may be used to prevent relapse to opioid use. Naltrexone blocks the effects of opioids if they are used. Naltrexone is available in oral (ReVia, Depade) and extended-release injectable (Vivitrol) formulations.

**Formulations of Naltrexone: Oral Versus Extended-Release Injectable**

Most studies that found oral naltrexone effective were conducted in situations in which patients were highly motivated, were legally mandated to receive treatment, and/or taking the medication under the supervision of their family or significant others. A meta-analysis of 1158 participants in 13 randomized trials compared treatment with oral naltrexone to either placebo or no medication for opioid use disorder.88 The evidence generated from these trials was limited by poor adherence and high dropout rates. Oral naltrexone was more efficacious than placebo in sustaining abstinence in three trials in which patients had external mandates (eg, legal requirements) and were monitored in adhering to daily doses of the medication.88,89

An extended-release injectable naltrexone formulation is available for patients with difficulty adhering to daily medication. This formulation requires an injection once per month. Extended-release injectable naltrexone has been found to be more efficacious than placebo for opioid dependence in randomized trials, although the trials were limited by high dropout rates of about 45% observed at 6 months.50 One trial found naltrexone to be efficacious in patients with more than one substance use disorder and using more than one drug (heroin and amphetamines), which is a drug combination common in patients with opioid use disorder.50
Patient Selection and Treatment Goals

Oral naltrexone and extended-release injectable naltrexone are efficacious treatments recommended for patients who have an opioid use disorder, are able to give informed consent, and have no specific contraindications for agonist treatment. The 1-month protection from relapse after a single dose makes it particularly useful in preventing overdoses and facilitating entry into longer-term treatment if given to prisoners shortly before re-entry or to patients who are discharged from general hospitals after being detoxified in the course of treatment for medical or surgical problems.

Treatment with naltrexone generally has the following four goals:

1. To prevent relapse to opioids in patients who have already been detoxified and are no longer physically dependent on opioids.
2. To block the effects of illicit opioids.
3. To reduce opioid craving.
4. To promote and facilitate patient engagement in recovery-oriented activities including psychosocial intervention.

Oral Naltrexone

Because oral naltrexone has high rates of nonadherence and the potential for overdose upon relapse, this treatment is best for candidates who can be closely supervised and who are highly motivated. There is a risk of opioid overdose if the patient ceases naltrexone and then uses opioids. Groups that may benefit from oral naltrexone include employed patients, those who have been using drugs for only a short time (eg, younger patients), and those under threat of legal sanctions.

Extended-Release Injectable Naltrexone

Extended-release injectable naltrexone is also an efficacious treatment for opioid use disorder. It may be especially useful for patients who have contraindications to, or who failed pharmacotherapy with buprenorphine and methadone; patients confined to drug-free environments such as prison or inpatient rehabilitation; patients living in areas where agonist treatment is not available; individuals who are highly motivated and are willing to taper off their current agonist therapy; or patients who simply do not want to be treated with an agonist. Because it is US FDA-approved for the treatment of alcohol use disorder, it may be well suited for patients with co-occurring opioid and alcohol use disorders.

Precautions

Risk of Relapse and Subsequent Opioid Overdose

Patients maintained on naltrexone will have diminished tolerance to opioids and may be unaware of the consequent increased sensitivity to opioids if they stop taking naltrexone. Patients who discontinue antagonist therapy should be made aware of this phenomenon. If the patient stops naltrexone and resumes use of opioids in doses similar to those that were being used before the start of treatment with naltrexone, there is risk of an opioid overdose. This is due to the loss of tolerance to opioids and a resulting misjudgment of dose at the time of relapse. A similar dynamic occurs in patients who detoxify with no meaningful follow-up treatment, or those who drop out of methadone or buprenorphine maintenance.

Course of Treatment

Induction

Before administering naltrexone, it is important that the patient has been adequately detoxified from opioids and is no longer physically dependent. Naltrexone can precipitate severe withdrawal symptoms in patients who have not been adequately withdrawn from opioids. As a general rule, patients should be free from short-acting opioids for about 6 days before starting naltrexone, and free from long-acting opioids such as methadone and buprenorphine for 7–10 days. A naloxone challenge can be used if it is uncertain whether the patient is no longer physically dependent on opioids. In the naloxone challenge, naloxone hydrochloride (a shorter-acting injectable opioid antagonist) is administered and the patient is monitored for signs and symptoms of withdrawal. A low-dose oral naltrexone challenge has been used as an alternative.

Dosing

"Oral naltrexone” can be dosed at: 50 mg daily or three times weekly dosing with two 100-mg doses followed by one 150-mg dose. Oral naltrexone seems to be most useful when there is a support person to administer and supervise the medication. A support person may be a family member, close friend, or an employer.

“Extended-release injectable naltrexone” can be given every 4 weeks by deep intramuscular (IM) injection in the gluteal muscle at a set dosage of 380 mg per injection. Whereas the injection interval is generally every 4 weeks, some clinicians have administered the medication more frequently (eg, every 3 weeks). There is no objective evidence supporting the safety or efficacy of this practice, however, and the Guideline Committee did not endorse it. More research is needed on safe dosing intervals for long-acting injectable naltrexone.

Special consideration should be made in naltrexone dosing for incarcerated groups. Re-entry into the community after imprisonment is a high-risk period for relapse to opioid misuse and overdose. Therefore, extended-release injectable naltrexone dosing before re-entry may serve to prevent relapse and overdose. A similar situation may apply to individuals leaving detoxification with no meaningful follow-up treatment, or to persons who have been detoxified in the course of medical or surgical treatment and who leave the hospital with no immediate relapse prevention follow-up therapy.

Adverse Effects

Naltrexone, both oral and extended-release injectable, is generally well tolerated. Apart from opioids, it does not typically interact with other medications. Most common side effects in random order can include insomnia, lack of energy/sedation, anxiety, nausea, vomiting, abdominal pain/cramps, headache, cold symptoms, joint and muscle pain, and specific to extended-release injectable naltrexone injection site reactions. To reduce injection site reactions in obese patients, a longer needle size may be used.
Psychosocial Treatment

Psychosocial treatment is recommended and its efficacy is established when used in combination with naltrexone. Extended-release injectable naltrexone has not been studied as a standalone therapy without psychosocial treatment (for more recommendations regarding psychosocial treatment, see “Part 7: Psychosocial Treatment in Conjunction with Medications for the Treatment of Opioid Use Disorder”).

Monitoring Treatment

Patients should be seen frequently at the beginning of their treatment. Weekly or more frequent visits are recommended until patients are determined to be stable. The stability of a patient is determined by an individual clinician based on a number of indicators which may include abstinence from illicit drugs, participation in psychosocial treatment and other recovery-based activities, and good occupational and social functioning. Stable patients can be seen less frequently, but should be seen at least monthly.

Accessing PDMP data is advisable to check for use of other prescription medications. In addition, objective measurement of body fluids for the presence of drugs of misuse is recommended.

Urine drug testing is a reasonably practical and reliable method to test for illicit drugs. However, other reliable biological tests for the presence of drugs may be used. It is recommended that patients be tested often and that testing should be done for substances such as heroin and marijuana, and prescription medications including benzodiazepines, prescription opioids, and amphetamines. How often and exactly what drugs should be tested for to optimize treatment has not been definitively established and is a topic that should be researched further.16

Length of Treatment

Data are not available at present on the recommended length of treatment with oral naltrexone or extended-release injectable naltrexone. Duration of treatment depends on the response of the individual patient, the patient’s individual circumstances, and clinical judgment.

Switching Treatment Medications

Switching from naltrexone to other opioid treatment medications may be appropriate in the following cases:

(1) Patient experiences intolerable side effects.
(2) Patient has not experienced a successful course of treatment in attaining or maintaining goal through the initially chosen pharmacotherapy option.
(3) Patient wants to change medications and is a candidate for alternative treatment.

Transitions of medications should be planned, considered, and monitored. Switching from an antagonist such as naltrexone to a full agonist (methadone) or a partial agonist (buprenorphine) is generally less complicated than switching from a full or partial agonist to an antagonist because there is no physical dependence associated with antagonist treatment. Patients being switched from naltrexone to buprenorphine or methadone will not have physical dependence on opioids and thus the initial doses of methadone or buprenorphine used may be less. Patients should not be switched until a significant amount of the naltrexone is no longer in their system – about 1 day for oral naltrexone or 30 days for extended-release injectable naltrexone.

Summary of Recommendations

(1) Naltrexone is a recommended treatment in preventing relapse in opioid use disorder. Oral formula naltrexone may be considered for patients in whom adherence can be supervised or enforced. Extended-release injectable naltrexone may be more suitable for patients who have issues with adherence.
(2) Oral naltrexone should be taken daily in 50-mg doses, or three times weekly in two 100-mg doses followed by one 150-mg dose.
(3) Extended-release injectable naltrexone should be administered every 4 weeks by deep IM injection in the gluteal muscle at a set dosage of 380 mg per injection.
(4) Psychosocial treatment is recommended in conjunction with treatment with naltrexone. The efficacy of naltrexone in conjunction with psychosocial treatment has been established, whereas the efficacy of extended-release injectable naltrexone without psychosocial intervention “has not” been established.
(5) There is no recommended length of treatment with oral naltrexone or extended-release injectable naltrexone. Duration depends on clinical judgment and the patient’s individual circumstances. Because there is no physical dependence associated with naltrexone, it can be stopped abruptly without withdrawal symptoms.
(6) Switching from naltrexone to methadone or buprenorphine should be planned, considered, and monitored. Switching from an antagonist such as naltrexone to a full agonist (methadone) or a partial agonist (buprenorphine) is generally less complicated than switching from a full or partial agonist to an antagonist because there is no physical dependence associated with antagonist treatment and thus no possibility of precipitated withdrawal. Patients being switched from naltrexone to buprenorphine or methadone will not have physical dependence on opioids and thus the initial doses of methadone or buprenorphine used should be low. Patients should not be switched until a significant amount of the naltrexone is no longer in their system – about 1 day for oral naltrexone or 30 days for extended-release injectable naltrexone.
(7) Patients who discontinue antagonist therapy and resume opioid use should be made aware of the increased risks associated with an opioid overdose, and especially the increased risk of death.

Areas for Further Research

(1) Further research is needed to test the relative efficacy of extended-release injectable naltrexone as compared to agonist treatment.
(2) Further research is needed on optimal withdrawal management to initiate treatment with naltrexone and minimize the risk of precipitated withdrawal.
(3) Further research is needed about the safety and efficacy of administering extended-release injectable naltrexone every 3 weeks for individuals who metabolize naltrexone at higher rates.

**PART 7: PSYCHOSOCIAL TREATMENT IN CONJUNCTION WITH MEDICATIONS FOR THE TREATMENT OF OPIOID USE DISORDER**

**Background**
Psychosocial treatment can help patients manage cravings, reduce the likelihood of relapse, and assist them in coping with the emotional and social challenges that often accompany substance use disorders. Psychosocial treatment is available in a variety of outpatient and inpatient settings, but the majority of studies have focused on outpatient treatment. Psychosocial treatment is provided using a variety of approaches in various milieus, including social skills training; individual, group, and couples counseling; cognitive behavioral therapy; motivational interviewing; and family therapy. Determining level of need and best approach to psychosocial treatment is individualized to each patient. In accordance with ASAM policy, mutual help compliments professional treatment, but is not a substitute for professional treatment.92

**Goals of Psychosocial Treatment for Opioid Use Disorder**
Although psychosocial treatment options vary, common therapeutic goals are to:

1. modify the underlying processes that maintain or reinforce use behavior;
2. encourage engagement with pharmacotherapy (eg, medication compliance); and
3. treat any concomitant psychiatric disorders that either complicate a substance use disorder or act as a trigger for relapse.

**Components of Psychosocial Treatment for Opioid Use Disorder**
Psychosocial treatment is recommended in conjunction with any/all pharmacological treatment for opioid use disorder. At a minimum, the psychosocial treatment component of the overall treatment program should include the following:

1. assessment of psychosocial needs;
2. supportive individual and/or group counseling;
3. linkages to existing family support systems; and
4. referrals to community-based services.

More structured psychosocial treatment may be offered, and may potentially include more intensive individual counseling and psychotherapy, more specific social needs assistance (eg, employment, housing, and legal services), and case management.

**Efficacy of Psychosocial Treatments in Opioid Use Disorder**
There is evidence of the superiority of some psychosocial treatments over others, particularly contingency management (CM) and cognitive behavioral therapy (CBT). A 2008 meta-analysis compared the 2340 participants who received one of the following interventions: CM, relapse prevention, CBT, and CBT combined with CM. Participants receiving any psychosocial treatment had better outcomes than participants who did not. Contingency management and the combined CM and CBT intervention produced better outcomes than the other interventions.92

Other potentially useful psychosocial treatments include, but are not limited to the following:

1. behavioral couples counseling;
2. cognitive behavioral coping skills training;
3. community reinforcement approach;
4. contingency management/motivational incentives; and
5. motivational enhancement.

Most recommendations for psychosocial treatments are not correlated with any specific pharmacological approach. Many patients have been shown to experience improved outcomes after receiving psychosocial treatment, in both individual and group formats, from a variety of approaches. Ancillary drug addiction counseling and mutual-help programs are generally considered beneficial.

**Mutual Help Programs**
Although not considered by ASAM to be a psychosocial treatment on its own, mutual help is an ancillary service that may be effective. Mutual-help programs may include 12-step programs such as Alcoholics Anonymous (AA), Narcotics Anonymous (NA), and Methadone Anonymous (MA). Other mutual-help groups include Self-Management and Recovery Therapy (SMART), and Moderation Management. Many providers recommend mutual-help programs, but there is anecdotal information to suggest that some of these programs may be less acceptable to patients receiving medications for opioid use disorder.

**Adherence to Psychosocial Treatment Within Overall Treatment**
Clinicians should determine the optimal type of psychosocial treatment to which to refer patients based on shared decision-making with the patient and in consideration of the availability and accessibility of area resources. Collaboration with qualified behavioral health providers is one way for clinicians to determine the type of psychosocial treatment that would best fit within a patient’s individualized treatment plan. The ASAM Standards describe in standards III.1 and III.2 the role of the clinician in coordinating care and providing therapeutic alternatives. Key concepts within these standards speak to the importance of patient education about alternatives, shared decision-making in selection of therapeutic services, and the incumbent responsibility of the clinician to assure through the treatment planning and treatment
management processes to assure that psychosocial treatment is being received and that the patient is progressing towards mutually agreed upon goals. Renegotiated treatment plans should be established when patients do not follow through with psychosocial treatment referrals and/or that it is determined that the treatment plan goals are not being advanced.

**Psychosocial Treatment and Treatment with Methadone**

Psychosocial treatment is generally recommended for patients in treatment with methadone (see “Part 4: Methadone,” subsection “Patient Selection and Treatment Goals”). Studies have found that psychosocial treatment in conjunction with methadone pharmacotherapy improves treatment effectiveness. The addition of psychosocial treatment has been associated with improved retention and reduced opioid use. A meta-analysis in 2011 found that psychosocial treatment improved withdrawal management outcomes.28

Some research, however, suggests the lack of efficacy in adding psychosocial treatment to treatment with methadone alone. Analyses of specific psychosocial treatments, including contingency management, did not show significant benefit over agonist medication alone.93 This analysis, however, did not examine the effect of existing psychosocial treatments given during the course of treatment with methadone. Instead, the meta-analysis measured the effect of added psychosocial treatments.

**Psychosocial Treatment and Treatment with Buprenorphine**

Clinicians who are prescribing buprenorphine should consider providing or recommending office-based or community-based psychosocial treatment. There is some research evidence that the addition of psychosocial treatment improves adherence and retention in treatment with buprenorphine62,94,95; however, these findings are mixed.20,96–98 It is recommended that clinicians offer patients psychosocial treatment early in their treatment with buprenorphine.

Effective therapies may include the following:

1. cognitive behavioral therapies;
2. contingency management;
3. relapse prevention; and
4. motivational interviewing.

**Psychosocial Treatment and Treatment with Naltrexone**

Psychosocial treatment is a recommended component of the treatment plan that utilizes the pharmacological therapy of naltrexone. In fact, extended-release injectable naltrexone’s efficacy was established only when used in combination with psychosocial treatment. Conversely, extended-release injectable naltrexone’s efficacy has not been tested as a standalone treatment without a psychosocial component. There are, however, limited data available on long-term outcomes.

**Summary of Recommendations**

1. Psychosocial treatment is recommended in conjunction with any pharmacological treatment of opioid use disorder. At a minimum, psychosocial treatment should include the following: psychosocial needs assessment, supportive counseling, links to existing family supports, and referrals to community services.

2. Treatment planning should include collaboration with qualified healthcare providers to determine the optimal type and intensity of psychosocial treatment and for renegotiation of the treatment plan for circumstances in which patients do not adhere to recommended plans for, or referrals to, psychosocial treatment.

3. Psychosocial treatment is generally recommended for patients who are receiving opioid agonist treatment (methadone or buprenorphine).

4. Psychosocial treatment should be offered with oral and extended-release injectable naltrexone. The efficacy of extended-release injectable naltrexone to treat opioid use disorder has not been confirmed when it has been used as pharmacotherapy without accompanying psychosocial treatment.

**Areas for Further Research**

1. Further research is needed to identify the comparative advantages of specific psychosocial treatments.

2. Further study is needed to evaluate the effectiveness of psychosocial treatment in combination with specific pharmacotherapies.

3. More research is needed on which concurrent psychosocial treatments are most effective for different patient populations and treatment settings including primary care.

4. Further research is needed on which psychosocial treatments are suitable for addition to buprenorphine or treatment with naltrexone, which can be delivered in primary care settings.

**PART 8: SPECIAL POPULATIONS: PREGNANT WOMEN**

**Background**

Many of the medical risks associated with opioid use disorder are similar for both pregnant and nonpregnant women; however, opioid use disorder carries obstetrical risks for pregnant women. Several obstetrical complications have been associated with opioid use in pregnancy, including preeclampsia, miscarriage, premature delivery, fetal growth restriction, and fetal death.100 It is difficult to establish the extent to which these problems are due to opioid use, withdrawal, or co-occurring use of other drugs. Other factors that may contribute to obstetrical complications include concomitant maternal medical, nutritional, and psychosocial issues.

Pregnant women with opioid use disorder are candidates for opioid agonist treatment if a return to opioid use is likely during pregnancy. Methadone is the accepted standard of care for use during pregnancy. Buprenorphine monoprodut is a reasonable and recommended alternative to methadone for pregnant women. There is insufficient evidence to recommend the combination buprenorphine/naloxone formulation, though there is evidence of safety.
Assessment of Opioid Use Disorder in Pregnant Women

As is the case for any patient presenting for assessment of opioid use disorder, the first clinical priority should be to identify any emergent or urgent medical conditions that require immediate attention. Diagnosing emergent conditions can be challenging because women may present with symptoms that may be related to overdose and/or a complication in pregnancy.

A comprehensive assessment including medical examination and psychosocial assessment is recommended in evaluating opioid use disorder in pregnant women. The clinician should ask questions in a direct and nonjudgmental manner to elicit a detailed and accurate history.

Medical Examination

Physical Examination

A physical examination should be conducted for pregnant women who are presenting with potential opioid use disorder. The examination should include identifying objective physical signs of opioid intoxication or withdrawal. The objective physical signs for patients, including pregnant women, are described in “Part 1: Assessment and Diagnosis of Opioid Use Disorder.”

Obstetricians and gynecologists should be alert to signs and symptoms of opioid use disorder. Pregnant women with opioid use disorder are more likely to seek prenatal care late in pregnancy, miss appointments, experience poor weight gain, or exhibit signs of withdrawal or intoxication. Positive results of serologic tests for HIV, hepatitis B, or hepatitis C may also indicate opioid use disorder.

On physical examination, some signs of drug use may be present, such as puncture marks from intravenous injection, abscesses, or cellulitis.

Laboratory Tests

Routine prenatal laboratory tests should be performed. Women who use opioids intravenously are at high risk for infections related to sharing injection syringes and sexually transmitted infections. Therefore, counseling and testing for HIV should be provided, according to state laws. Tests for hepatitis B and C and liver function are also suggested. Hepatitis A and B vaccination is recommended for those whose hepatitis serology is negative.

Urine drug testing may be used to detect or confirm suspected opioid and other drug use, but should be performed only with the patient’s consent and in compliance with state laws. State laws differ in terms of clinicians’ reporting requirements of identified drug use to child welfare services and/or health authorities. Laws that penalize pregnant women for substance use disorders serve to prevent women from obtaining prenatal care and treatment for opioid use disorder, which may worsen outcomes for mother and child. According to the American Congress of Obstetricians and Gynecologists (ACOG) 2014 Toolkit on State Legislation, mandatory urine drug testing is considered an unfavorable policy that does not support healthy pregnancy outcomes.16 Routine urine drug testing is not highly sensitive for many drugs and results in false-positive and negative results that are misleading and potentially devastating for the patient. ACOG suggests that even with patient consent, urine testing should not be relied upon as the sole or valid indication of drug use. They suggest that positive urine screens should be followed with a definitive drug assay. Similarly, in a study conducted on pregnant women in Florida, where there is mandatory reporting to health authorities, study authors identified that compliant clinician reporting of drug misuse was biased by racial ethnicity and socioeconomic status of the pregnant woman. It was their conclusion that any state that regulates for mandatory urine testing and reporting do so based on medical criteria and medical necessity of such testing.

Imaging

Confirmation of a viable intrauterine pregnancy by sonography is often required before acceptance into an OTP that is tailored specifically to pregnant women. Imaging is also useful for confirmation of gestational age.

Psychosocial Assessment

Research has found that the majority of women entering treatment for opioid use disorder have a history of sexual assault, domestic violence, and/or come from homes where their parents used drugs. Therefore, it is important to obtain a psychosocial history when evaluating pregnant women for opioid use disorder.

Opioid Agonist Treatment in Pregnancy

Decisions to use opioid agonist medications in pregnant women with opioid use disorder revolve around balancing the risks and benefits to maternal and infant health. Opioid agonist treatment is thought to have minimal long-term developmental impacts on children relative to harms resulting from maternal use of heroin and prescription opioids. Therefore, women with opioid use disorder who are not in treatment should be encouraged to start opioid agonist treatment with methadone or buprenorphine monotherapy (without naloxone) as early in the pregnancy as possible. Furthermore, pregnant women who are on agonist treatment should be encouraged not to discontinue treatment while they are pregnant.

Treatment Management Team

Pregnancy in women with opioid use disorder should be co-managed by an obstetrician and an addiction specialist physician. Release of information forms need to be completed to ensure communication among healthcare providers.

Opioid Agonists Versus Withdrawal Management

Pregnant women who are physically dependent on opioids should receive treatment using agonist medications rather than withdrawal management or abstinence as these approaches may pose a risk to the fetus. Furthermore, withdrawal management has been found to be inferior in effectiveness over pharmacotherapy with opioid agonists and increases the risk of relapse without fetal or maternal benefit.

Methadone Versus Buprenorphine

The discussion and decision for medication should be reviewed with the patient and documented in her chart. For
women who are pregnant or breastfeeding, opioid agonist treatment with methadone or buprenorphine is seen as the most appropriate treatment, taking into consideration effects on the fetus, neonatal abstinence syndrome, and impacts on perinatal care and parenting of young children.

Methadone is the accepted standard of care for use during pregnancy; however, buprenorphine monoprodut is a reasonable alternative and also has some advantages over methadone. Infants born to mothers treated with buprenor- phine had shorter hospital stays (10 vs. 17.5 days), had shorter treatment durations for neonatal abstinence syndrome (NAS) (4.1 vs. 9.9 days), and required a lower cumulative dose of morphine (1.1 vs. 10.4 mg) compared to infants born to mothers on treatment with methadone. However, in this trial, mothers treated with buprenorphine were more likely to drop out of treatment compared to mothers treated with methadone.

Combination Buprenorphine/Naloxone

There is some evidence suggesting that buprenorphine/ naloxone is equivalent in safety and efficacy to the monoprodut for pregnant women. At present, however, this evidence is insufficient to recommend the combination buprenor- phine/naloxone formulation in this population. The bupre- norphine monoprodut should be used instead.

Naltrexone in Pregnancy

If a woman becomes pregnant while she is receiving naltrexone, it is appropriate to discontinue the medication if the patient and doctor agree that the risk of relapse is low. If the patient is highly concerned about relapse and wishes to remain on naltrexone, it is important to inform the patient about the risks of staying on naltrexone and obtain consent for ongoing treatment. If the patient discontinues treatment with naltrexone and subsequently relapses, it may be appropriate to consider methadone or treatment with buprenorphine.

Naloxone in Pregnancy

The use of an antagonist such as naloxone to diagnose opioid use disorder in pregnant women is contraindicated because induced withdrawal may precipitate preterm labor or fetal distress. Naloxone should be used only in the case of maternal overdose to save the woman’s life.

Methadone Induction

Conception While in Treatment with Methadone

Conceiving while on methadone has been associated with better drug treatment outcomes compared to women who initiate methadone during pregnancy. Pregnant women in treatment with methadone before conception who are not in physical withdrawal can be continued on methadone as outpatients.

Timing of Treatment in Pregnancy

Treatment with methadone should be initiated as early as possible during pregnancy to produce the most optimal outcomes. Longer duration of treatment with methadone is associated with longer gestation and higher birth weight. There is insufficient evidence of teratogenic effects in pregnancy. NAS occurs while under treatment with methadone, but is easily treated if all parties are aware that it is likely to occur. The NAS risk to the fetus is significantly less than the risk of untreated opioid dependence. Data collected on exposure in human pregnancies are complicated by confounding variables including drug, alcohol, and cigarette use; poor maternal nutrition; and an increased prevalence of maternal infection.

The optimum setting for initiation of therapy has not been evaluated in this population. Hospitalization during initiation of treatment with methadone may be advisable due to the potential for adverse events (eg, overdose and adverse drug interactions), especially in the third trimester. This is also an ideal time for the woman to be assessed by a social worker and case manager, and initiate prenatal care if it has not been initiated earlier.

In an inpatient setting, methadone is initiated at a dose range from 10 to 30 mg. Incremental doses of 5–10 mg are given every 3–6 hours as needed to treat withdrawal symptoms, to a maximum first day dose of 30–40 mg. After induction, clinicians should increase the methadone dose in 5–10-mg increments per week, if indicated, to maintain the lowest dose that controls withdrawal symptoms and minimizes the desire to use additional opioids.

Buprenorphine Induction

Initiation or induction of buprenorphine may lead to withdrawal symptoms in patients with physical dependence on opioids. To minimize this risk, induction should be initiated when a woman begins to show objective, observable signs of moderate withdrawal, but before severe withdrawal symptoms are evidenced. This usually occurs 6 hours or more after the last dose of a short-acting opioid, and typically 24–48 hours after the use of long-acting opioids. Hospitalization during initiation of treatment with buprenorphine may be advisable due to the potential for adverse events, especially in the third trimester.

Drug dosing is similar to that in women who are not pregnant (see “Part 5: Buprenorphine” for more information).

Dosing of Opioid Agonists During Pregnancy

Methadone Dosing

In the second and third trimester, methadone doses may need to be increased due to increased metabolism and circulating blood volume. With advancing gestational age, plasma levels of methadone progressively decrease and clearance increases. The half-life of methadone falls from an average of 22–24 hours in nonpregnant women to 8.1 hours in pregnant women. As a result, “increased” or split methadone doses may be needed as pregnancy progresses to maintain therapeutic effects. Splittting the methadone dose into two 12-hour doses may produce more adequate opioid replacement in this period. There is frequent misconception that doses of methadone should decrease as pregnancy progresses; however, data refute this misconception. The risk and severity of NAS are not correlated with methadone doses taken by the mother at the time of delivery and tapering of
dose is not indicated. After birth, the dose of methadone may need to be adjusted.

Buprenorphine Dosing

The need to adjust dosing of buprenorphine during pregnancy is less than that of methadone. Clinicians may consider split dosing in patients who complain of discomfort and craving in the afternoon and evening.

Breastfeeding

 Mothers receiving methadone and buprenorphine monoprod for the treatment of opioid use disorders should be encouraged to breastfeed. Naltrexone is not recommended for use during breastfeeding. Specialy advice should be sought for women with concomitant medical or substance use disorders. Contraindications or precautions in breastfeeding include the following:

1. HIV-positive mothers.
2. Mothers using alcohol, cocaine, or amphetamine-type drugs.

Guidelines from the Academy of Breastfeeding Medicine encourage breastfeeding for women treated with methadone who are enrolled in methadone programs. Some of the benefits include improved maternal–infant bonding and favorable effects on NAS. It is not clear whether the favorable effects of breastfeeding on NAS are related to the breast milk itself or the act of breastfeeding. In a study of buprenorphine and breastfeeding, it was shown that the amount of buprenorphine metabolites secreted in breast milk are so low that they pose little risk to breastfeeding infants.

Summary of Recommendations

1. The first priority in evaluating pregnant women for opioid use disorder should be to identify emergent or urgent medical conditions that require immediate referral for clinical evaluation.
2. A medical examination and psychosocial assessment is recommended when evaluating pregnant women for opioid use disorder.
3. Obstetricians and gynecologists should be alert to signs and symptoms of opioid use disorder. Pregnant women with opioid use disorder are more likely to seek prenatal care late in pregnancy, miss appointments, experience poor weight gain, or exhibit signs of withdrawal or intoxication.
4. Psychosocial treatment is recommended in the treatment of pregnant women with opioid use disorder.
5. Counseling and testing for HIV should be provided in accordance with state law. Tests for hepatitis B and C and liver function are also suggested. Hepatitis A and B vaccination is recommended for those whose hepatitis serology is negative.
6. Urine drug testing may be used to detect or confirm suspected opioid and other drug use with informed consent from the mother, realizing that there may be adverse legal and social consequences of her use. State laws differ on reporting substance use during pregnancy.

Laws that penalize women for use and for obtaining treatment serve to prevent women from obtaining prenatal care and worsen outcomes.

7. Pregnant women who are physically dependent on opioids should receive treatment using methadone or buprenorphine monoprod rather than withdrawal management or abstinence.
8. Care for pregnant women with opioid use disorder should be comanaged by an obstetrician and an addiction specialist physician. Release of information forms need to be completed to ensure communication among healthcare providers.
9. Treatment with methadone should be initiated as early as possible during pregnancy.
10. Hospitalization during initiation of methadone and treatment with buprenorphine may be advisable due to the potential for adverse events, especially in the third trimester.
11. In an inpatient setting, methadone should be initiated at a dose range of 20–30 mg. Incremental doses of 5–10 mg are given every 3–6 hours, as needed, to treat withdrawal symptoms.
12. After induction, clinicians should increase the methadone dose in 5–10 mg increments per week. The goal is to maintain the lowest dose that controls withdrawal symptoms and minimizes the desire to use additional opioids.
13. Twice-daily dosing is more effective and has fewer side effects than single dosing, but may not be practical because methadone is typically dispensed in an outpatient clinic.
14. Clinicians should be aware that the pharmacokinetics of methadone are affected by pregnancy. With advancing gestational age, plasma levels of methadone progressively decrease and clearance increases. Increased or split doses may be needed as pregnancy progresses. After child birth, doses may need to be adjusted.
15. Buprenorphine monoprod is a reasonable and recommended alternative to methadone for pregnant women. Whereas there is evidence of safety, there is insufficient evidence to recommend the combination buprenorphine/naloxone formulation.
16. If a woman becomes pregnant while she is receiving naltrexone, it is appropriate to discontinue the medication if the patient and doctor agree that the risk of relapse is low. If the patient is highly concerned about relapse and wishes to continue naltrexone, she should be informed about the risks of staying on naltrexone and provide her consent for ongoing treatment. If the patient wishes to discontinue naltrexone, but then reports relapse to opioid use, it may be appropriate to consider treatment with methadone or treatment with buprenorphine.
17. Naloxone is not recommended for use in pregnant women with opioid use disorder except in situations of life-threatening overdose.
18. Mothers receiving methadone and buprenorphine monoprod for the treatment of opioid use disorders should be encouraged to breastfeed.
Areas for Further Research

Further research is needed to establish the safety of buprenorphine or the combination of the buprenorphine/naloxone for use in pregnancy.

PART 9: SPECIAL POPULATIONS: INDIVIDUALS WITH PAIN

Background

The occurrence of acute and chronic pain among patients with an opioid use disorder is not uncommon. Because of the current epidemic of nonmedical prescription drug use, it is critical to know how to manage pain safely and effectively. There are three general situations (listed below), each of which will be addressed separately, in which patients with opioid use disorder could be treated for pain:

1. Pain in patients with an untreated and active opioid use disorder
2. Pain in patients under opioid use disorder treatment with opioid agonists
3. Pain in patients under opioid use disorder treatment with naltrexone

General Considerations for All Patients With Pain

For all patients with pain, it is important that the correct diagnosis of pain etiology be made and that a suitable treatment be identified. Nonpharmacological treatments have been shown to be effective for pain (eg, physical therapy) and may be considered. If pharmacological treatment is considered, then non-narcotic medications such as acetaminophen and NSAIDs should be tried first. Adjunctive medications including anti-convulsants may be useful. Tricyclic antidepressants or combined norepinephrine-serotonin reuptake inhibitors may also be used.

Pain Management in Patients Using Opioids

Opioid agonists (methadone or buprenorphine) may be considered for patients with an active opioid use disorder who are not undergoing treatment. Both methadone and buprenorphine have analgesic effects. Transition to opioid agonist treatments can help co-manage pain and opioid use disorder.

Methadone and Pain Management

Patients prescribed methadone for opioid use disorder treatment should receive pain management in the same way as other patients in consultation with a pain specialist.

Acute and Chronic Pain Control

Because of the tolerance associated with daily methadone dosing, the usual dose of methadone may be inadequate for pain control. Patients in treatment with methadone will require doses of opioids in addition to their regular daily dose of methadone to manage acute pain. However, in some cases, the tolerance associated with daily methadone dosing may result in the need for higher doses of narcotic analgesics. Methadone patients who have chronic pain should optimally be treated in consultation with a pain specialist.

Buprenorphine and Pain Management

Acute Pain Control

Although it is a mu-opoid partial agonist, buprenorphine does have analgesic properties. Temporarily increasing buprenorphine dosing or dividing the dose may be effective for acute pain management.

Patients’ pain may not be adequately addressed with buprenorphine and may require a full agonist. In situations when a full opioid agonist is needed for pain control, patients may be taken off buprenorphine and switched to a full opioid agonist until analgesia is no longer necessary. This may occur when patients undergo elective surgery. However, there are data to suggest that the discontinuation of buprenorphine is unnecessary and that adequate analgesia may be possible by simply adding non-narcotic and narcotic analgesics to the patient’s baseline buprenorphine dose.

For severe acute pain, discontinuing buprenorphine is advisable, and then commencing a high-potency opioid (such as fentanyl) in an attempt to over-ride the partial mu-receptor blockade of the buprenorphine is recommended. Patients should be monitored closely because high doses of a full agonist may be required. As the buprenorphine’s partial blockade dissipates, the full agonist effect may lead to oversedation and respiratory depression. Additional interventions such as regional anesthesia should also be considered.

Chronic Pain Control

Buprenorphine may be adequate for chronic pain control in many patients with opioid use disorder and other types of chronic pain. Chronic opioid therapy, especially at high doses, may heighten pain sensitivity. There is some evidence suggesting that patients experiencing significant pain on high doses of full agonist opioid pain relievers experience improved pain control when transitioned to buprenorphine. Split dosing of buprenorphine should be considered for patients with pain.

Considerations for Buprenorphine in Surgery

Discontinuation of buprenorphine is not recommended before elective cesarean section as it creates the potential for fetal withdrawal. For other elective surgeries in which buprenorphine is discontinued, the last dose of buprenorphine is usually delivered 24–36 hours before the anticipated need for analgesia. The buprenorphine is then restarted after a period of time after the discontinuation of full opioid agonists. Short-acting opioids should be given during or after surgery and titrated to maintain proper analgesia. In cases in which the buprenorphine cannot be stopped abruptly, pain control may be achieved with full opioid agonists added to the buprenorphine, but the doses may need to be increased to overcome the receptor blockade produced by buprenorphine. The decision to discontinue buprenorphine before an elective surgery .
surgery should optimally be made in consultation with the attending surgeon and anesthesiologist.

**Naltrexone and Pain Management**

Patients on naltrexone will not respond to opioid analgesics in the usual manner. Mild pain may be treated with NSAIDs. Ketorolac may be prescribed for moderate to severe pain, but its use should be time-limited due to higher risk of gastritis.

Emergency pain control options in patients taking naltrexone include the following:

1. regional anesthesia;
2. conscious sedation with benzodiazepines or ketamine; and
3. nonopioid options in general anesthesia.

**Considerations for Naltrexone in Surgery**

Oral naltrexone should be discontinued at least 72 hours before elective surgery if pain management using opioids is anticipated. Extended-release naltrexone should be stopped at least 30 days before surgery, and oral naltrexone may be used temporarily. The surgical team should be aware of the use of naltrexone. Patients should be off opioids for 3–7 days before resuming naltrexone (oral or extended-release formulations). A naloxone challenge may be used to confirm that opioids are no longer being used.

**Summary of Recommendations**

1. For all patients with pain, it is important that the correct diagnosis be made and that a target suitable for treatment is identified.
2. If pharmacological treatment is considered, non-narcotic medications such as acetaminophen and NSAIDs should be tried first.
3. Opioid agonists (methadone or buprenorphine) should be considered for patients with active opioid use disorder who are not under treatment.
4. Pharmacotherapy in conjunction with psychosocial treatment should be considered for patients with pain who have opioid use disorder.
5. Patients on methadone for the treatment of opioid use disorder will require doses of opioids in addition to their regular daily dose of methadone to manage acute pain.
6. Patients on methadone for the treatment of opioid use disorder and who are admitted for surgery may require additional short-acting opioid pain relievers. The dose of pain relievers prescribed may be higher due to tolerance.
7. Temporarily increasing buprenorphine dosing may be effective for mild acute pain.
8. For severe acute pain, discontinuing buprenorphine and commencing on a high-potency opioid (such as fentanyl) is advisable. Patients should be monitored closely and additional interventions such as regional anesthesia should also be considered.
9. The decision to discontinue buprenorphine before an elective surgery should be made in consultation with the attending surgeon and anesthesiologist. If it is decided that buprenorphine should be discontinued before surgery, this should occur 24–36 hours in advance of surgery and restarted postoperatively when the need for full opioid agonist analgesia has passed.
10. Patients on naltrexone will not respond to opioid analgesics in the usual manner. Therefore, it is recommended that mild pain be treated with NSAIDs and moderate to severe pain be treated with ketorolac on a short-term basis.
11. Oral naltrexone should be discontinued 72 hours before surgery and extended-release injectable naltrexone should be discontinued 30 days before an anticipated surgery.

**Areas for Further Research**

Further research is needed to examine whether the discontinuation of buprenorphine before elective surgery is necessary. Studies on whether it is possible to provide adequate analgesia by adding full agonist opioid analgesics to the patient’s baseline buprenorphine dose are needed.

**PART 10: SPECIAL POPULATIONS: ADOLESCENTS**

**Background**

The American Academy of Pediatrics categorizes adolescence as the totality of three developmental stages – puberty to adulthood – which occur generally between 11 and 21 years of age. Young people within this age group – adolescents – present for treatment with a broad spectrum of opioid use disorder severity and with co-occurring medical and psychiatric illness. Consequently, physicians will need to respond with a full range of treatment options, including pharmacotherapy. However, limited evidence exists regarding the efficacy of opioid withdrawal management in adolescents. Pharmacological therapies have primarily been developed through research with adult populations.

The treatment of adolescents with opioid use disorder presents many unique medical, legal, and ethical dilemmas that may complicate treatment. Given these unique issues, adolescents with opioid use disorder often benefit from services designed specifically for them. Furthermore, the family should be involved in treatment whenever possible.

**Confidentiality in Treatment**

One issue that may be of particular importance to consider in the treatment of adolescents is confidentiality. Adolescents have reported that they are less likely to seek substance use disorder treatment if services are not confidential. Confidential care, particularly with respect to sensitive issues such as reproductive health and substance use, has become a well established practice. This is a subject of complexity as it is an area governed by both Federal and state laws. Moreover, defined age ranges of “adolescence” vary. A myriad of clinical and legal responsibilities may be evoked if confronted by a young person’s request for confidentiality. More than half of the states in the United States, by law, permit adolescents less than 18 years of age to consent to substance use disorder treatment without parental consent. State law should also be consulted. An additional reference
source in decision-making regarding the implications on coordination of care, effectiveness of treatment without parental communication, and more are fully discussed in a publication of the Substance Abuse and Mental Health Services Administrations (SAMHSA), Center for Substance Abuse Treatment, Treatment Improvement Protocol (TIP) #33.132

### Pharmacotherapy Options for Adolescents

Opioid agonists (methadone and buprenorphine) and antagonists (naltrexone) may be considered for treatment of opioid use disorder in adolescents. However, efficacy studies for these medications have largely been conducted in adults. This recommendation is based on the consensus opinion of the Guideline Committee. There are virtually no data comparing the relative effectiveness of these treatments in adolescents.

#### Opioid Agonists: Methadone and Buprenorphine

Agonist medications are indicated for the treatment of patients who are aged 18 years and older. The Federal code on opioid treatment – 42 CFR § 8.12 – offers an exception for patients aged 16 and 17, who have a documented history of at least two prior unsuccessful withdrawal management attempts, and have parental consent.133

#### Efficacy Research on Agonists and Partial Agonists in Adolescents

There are no controlled trials evaluating methadone for the treatment of opioid use disorder in adolescents under the age of 18. Descriptive trials support the usefulness of treatment with methadone in supporting treatment retention in adolescent heroin users.134 The usefulness of treatment with buprenorphine has been demonstrated in two RCTs. Studies have, however, not included adolescents under the age of 16.135,136 Buprenorphine is not US FDA-approved for use in patients less than 16 years old. Buprenorphine is more likely to be available in programs targeting older adolescents and young adults. No direct comparison of the efficacy of buprenorphine versus methadone has been conducted in adolescent populations.

#### Opioid Antagonist: Naltrexone

Naltrexone may be considered for young adults aged 18 years and older who have opioid use disorder. Naltrexone does not induce physical dependence and is easier to discontinue. Oral naltrexone may be particularly useful for adolescents who report a shorter duration of opioid use. Extended-release injectable naltrexone is administered monthly and can be delivered on an outpatient basis. There is only one small case series that demonstrated the efficacy of extended-release injectable naltrexone in adolescents.137 The safety, efficacy, and pharmacokinetics of extended-release injectable naltrexone have not been established in the adolescent population.

#### Psychosocial Treatment for Adolescents

Psychosocial treatment is recommended in the treatment of adolescents with opioid use disorder. Recommended treatments based on the consensus opinion of the Guideline Committee include family intervention approaches, vocational support, and behavioral interventions to incrementally reduce use. Holistic risk-reduction interventions, which promote practices to reduce infection, are particularly important in the prevention of sexually transmitted infections and blood-borne viruses. Treatment of concomitant psychiatric conditions is also especially important in this population. Adolescents often benefit from specialized treatment facilities that provide multiple services.

### Summary of Recommendations

1. Clinicians should consider treating adolescents who have opioid use disorder using the full range of treatment options, including pharmacotherapy.
2. Opioid agonists (methadone and buprenorphine) and antagonists (naltrexone) may be considered for treatment of opioid use disorder in adolescents. Age is a consideration in treatment, and Federal laws and US FDA approvals need to be considered for patients under age 18.
3. Psychosocial treatment is recommended in the treatment of adolescents with opioid use disorder.
4. Concurrent practices to reduce infection (eg, sexual risk-reduction interventions) are recommended as components of comprehensive treatment for the prevention of sexually transmitted infections and blood-borne viruses.
5. Adolescents may benefit from treatment in specialized treatment facilities that provide multidimensional services.

### Areas for Further Research

1. More studies are needed to examine the efficacy of pharmacotherapy for adolescents with opioid use disorder. Due to the few clinical trials in adolescents, most of the current recommendations are based on research with adults.
2. More research is needed to identify which psychosocial treatments, alone and in combination with pharmacotherapy, are best suited for use with adolescents.

### Background

Co-occurring psychiatric disorders are common among individuals who have opioid use disorder. Epidemiological studies have demonstrated a higher prevalence of substance use among people with psychiatric disorders relative to the general population.138 Reasons for the association between psychiatric and substance use disorders are not known. One hypothesis is that the dual diagnoses result from risk factors that are common to both disorders. A shared genetic vulnerability has been proposed to explain dysregulation in dopamine and glutamate systems in schizophrenia and substance use disorders.139,140 Another hypothesis is that people with psychiatric disorders are more likely to use drugs as a method of self-medication.141–143

Co-occurring psychiatric disorders should not bar patients from opioid use disorder treatment. The presence of the following common psychiatric disorders should be evaluated in patients presenting with possible opioid use disorder:

1. Depression
2. Anxiety
(3) Personality disorders
(4) Post-traumatic stress disorder.

Assessment of Psychiatric Co-occurrence
The assessment of psychiatric disorders is critical when attempting to place patients in the appropriate treatment. Hospitalization may be appropriate for patients with severe or unstable psychiatric symptoms that may compromise the safety of self and others. An initial patient assessment should determine whether the patient is stable. Patients with suicidal or homicidal ideation should be referred immediately for treatment and possibly hospitalization. Patients should also be assessed for signs or symptoms of acute psychosis and chronic psychiatric disorders.

An assessment including medical history, physical examination, and an assessment of mental health status and/or psychiatric disorder should occur at the beginning of agonist or antagonist treatment (see “Part 1: Assessment and Diagnosis of Opioid Use Disorder”). Reassessment using a detailed mental status examination should occur after stabilization with methadone, buprenorphine, or naltrexone.

Co-occurring Psychiatric Disorders and Suicide Risk
Psychiatric disorders are strongly associated with suicide. More than 90% of patients who attempt suicide have a major psychiatric disorder. In cases where suicide attempts resulted in death, 95% of patients had a psychiatric diagnosis.

Management of a suicidal patient should include the following:

(1) Reduce immediate risk
(2) Manage underlying factors associated with suicidal intent
(3) Monitor and follow-up

Considerations with Specific Psychiatric Disorders
Depression or Bipolar Disorder
Antidepressant therapy may be initiated with pharmacotherapy for opioid use disorder for patients with symptoms of depression. Patients presenting with mania should be evaluated to determine whether symptoms arise from the bipolar disorder or substance use. Patients with bipolar disorder may require additional psychiatric care, hospitalization, and/or treatment with prescription mood stabilizers.

All patients with depression, including bipolar disorder, should be asked about suicidal ideation and behavior. Patients with a history of suicidal ideation or attempts should have their medication use monitored regularly. This includes medications for the treatment of opioid use disorder and psychiatric medications.

Schizophrenia
Antipsychotic therapy may be initiated with pharmacotherapy for opioid use disorder for patients with schizophrenia or other psychotic disorder. Coadministration of antipsychotic medications with agonist pharmacotherapy or use of long-acting depot formulations of antipsychotic medications is an option to consider in patients with histories of medication nonadherence.

All patients with schizophrenia should be asked about suicidal ideation and behavior. Patients with a history of suicidal ideation or attempts should have their medication use monitored regularly. This includes medications for the treatment of opioid use disorder and psychiatric medications.

For patients with schizophrenia and concomitant opioid use disorder who have a recent history of, or are at risk of repeated hospitalization or homelessness, assertive community treatment (ACT) should be considered. ACT is designed to provide treatment, rehabilitation, and support services to individuals who are diagnosed with severe psychiatric disorders, and whose needs have not been well met by more traditional psychiatric or psychosocial services. The efficacy of ACT has had mixed results on substance use disorder outcomes, but has shown benefit in preventing homelessness. When ACT or another intensive case management program is unavailable, traditional case management can be helpful to patients who are unable to manage necessary, basic tasks.

Co-occurring Psychiatric Disorders and Agonist Treatment
Pharmacological and conjunctive psychosocial treatments should be considered for patients with both an opioid use disorder and a psychiatric disorder. Actively suicidal patients are not good candidates for any opioid treatment.

Methadone
Methadone for the treatment of opioid use disorder has been found to reduce psychiatric distress in a few weeks. Psychotherapy has been found useful in patients who have moderate to severe psychiatric disorders.

Buprenorphine
Psychiatrictially stable patients are good candidates for buprenorphine. Patients with depression who are receiving treatment with buprenorphine require a higher level of monitoring.

Co-occurring Psychiatric Disorders and Antagonist Treatment
Psychiatrictically stable patients are good candidates for treatment with oral naltrexone or extended-release injectable naltrexone. There are little data, however, regarding the relative efficacy of these medications in opioid-dependent patients with co-occurring psychiatric disorders. The once-monthly injections of extended-release injectable naltrexone may be especially useful in patients with a co-occurring psychiatric disorder, who may not be able to adhere well to daily dosing. Patients should be closely observed for adverse events as some patients have reported suicidal ideation, suicide attempts, and depression.

Summary of Recommendations
(1) A comprehensive assessment including determination of mental health status should evaluate whether the patient is
stable. Patients with suicidal or homicidal ideation should be referred immediately for treatment and possibly hospitalization.

(2) Management of patients at risk for suicide should include the following: reducing immediate risk; managing underlying factors associated with suicidal intent; and monitoring and follow-up.

(3) All patients with psychiatric disorders should be asked about suicidal ideation and behavior. Patients with a history of suicidal ideation or attempts should have opioid use disorder, and psychiatric medication use, monitored.

(4) Assessment for psychiatric disorder should occur at the onset of agonist or antagonist treatment. Reassessment using a detailed mental status examination should occur after stabilization with methadone, buprenorphine, or naltrexone.

(5) Pharmacotherapy in conjunction with psychosocial treatment should be considered for patients with opioid use disorder and a co-occurring psychiatric disorder.

(6) Clinicians should be aware of potential interactions between medications used to treat co-occurring psychiatric disorders and opioid use disorder.

(7) Assertive community treatment should be considered for patients with co-occurring schizophrenia and opioid use disorder, who have a recent history of, or are at risk of, repeated hospitalization or homelessness.

PART 12: SPECIAL POPULATIONS: INDIVIDUALS IN THE CRIMINAL JUSTICE SYSTEM

Background

A substantial proportion of persons in prisons, jails, drug courts, probation, parole, and who are criminally involved have opioid use disorder and related problems. A lifetime history of incarceration is common among intravenous drug users; 56–90% of intravenous drug users have been incarcerated previously.149 The United States leads the world in the number of people incarcerated in Federal and state correctional facilities. There are, at present, more than 2 million people in American prisons. Approximately one-quarter of those people held in US prisons have been convicted of a drug offense.148 Continued drug use is common among prisoners, and many individuals initiate intravenous drug use while in prison.151,152

Prison drug use is particularly risky because of the environment. The high concentration of at-risk individuals and general overcrowding can increase the risk of adverse consequences associated with drug use, including violence, drug-related deaths, suicide, and self-harm.153 Drugs and sterile injection equipment is rare and sharing needles is common, leading to a high risk of spreading HIV and hepatitis C. Discharge from prison is often associated with opioid overdose and death. Consequently, it is important to identify and implement effective treatments for prisoners and probationers/parolees.

For the purposes of this Practice Guideline, a prison is to be differentiated from a jail. At the most basic level, the fundamental difference between jail and prison is the length of stay for inmates. Jails are usually run by local law enforcement and/or local government agencies, and are designed to hold inmates awaiting trial or serving a short sentence. Prison terms are of longer duration. Anyone incarcerated, regardless of sentence term, should be continued on opioid treatment.

Effectiveness of Pharmacotherapy

Pharmacotherapy for the treatment of opioid use disorder among prisoners has been shown to be effective. Most evidence for the effectiveness of pharmacotherapy for the treatment of opioid use disorder among prisoners has been derived from treatment with methadone. However, there is some evidence supporting the use of buprenorphine and naltrexone in this population.154

Methadone

Treatment with methadone has been shown to have a number of beneficial effects in inmates with opioid use disorders. Prisoners with opioid use disorder treated with methadone inject a lesser amount of drugs.155,156 Prisoners treated with methadone used less drugs after release and were more likely to participate in community-based addiction treatment.157 Treatment with methadone lowered the rate of reincarceration during the 3-year period following first incarceration.158,159

Buprenorphine

Although less extensively studied, in some early trials, buprenorphine has also been associated with beneficial effects in prisoners with opioid use disorder. A RCT comparing buprenorphine and methadone among male heroin users who were newly admitted to prison showed that treatment completion rates were similar, but that buprenorphine patients were significantly more likely to enter community-based treatment after release.158 In a more recent trial, buprenorphine initiated in prison was also associated with a greater likelihood of entering community treatment.159 However, buprenorphine was diverted in some cases. Although promising, more research needs to be done to establish the effectiveness of in-prison treatment with buprenorphine.

Naltrexone

Extended-release injectable naltrexone is the newest, and consequently least studied, medication for the treatment of prisoners and parolees. It has been shown to be effective for the treatment of opioid dependence in some early trials; however, there are no published studies evaluating the effectiveness of extended-release injectable naltrexone for the treatment of opioid use disorder in prisoners. In one small pilot trial involving parolees with prior opioid use disorder, 6 months of treatment with extended-release injectable naltrexone was associated with fewer opioid-positive urine drug screens and a reduced likelihood of reincarceration.160 There are no studies establishing effectiveness of extended-release injectable naltrexone for persons in prison, or comparing it to either methadone or buprenorphine. Further research is needed in this area.

Treatment Options

All adjudicated individuals, regardless of type of offense and disposition, should be screened for opioid use...
disorder and considered for initiation or continuation of medication for the treatment of opioid use disorder. For incarcerated individuals, it should be initiated a minimum of 30 days before release, and aftercare should be arranged in advance.\textsuperscript{163}

**Methadone and Buprenorphine**

Methadone or treatment with buprenorphine that is initiated during incarceration and to be continued after release is recommended for inmates with opioid use disorder without contraindications to these two medications. There is limited research comparing methadone and buprenorphine. In one trial, outcomes after release were similar; however, there was a problem with diversion of buprenorphine.\textsuperscript{160}

**Naltrexone**

Extended-release injectable naltrexone may be considered for prisoners with opioid use disorder. However, there are little data about efficacy in prison populations. Extended-release injectable naltrexone should be considered for patients with opioid use disorder, with no contraindications, before their release from prison. Whether or not extended-release injectable naltrexone is superior to buprenorphine or methadone for the treatment of prisoners with opioid use disorder is unknown.

**Summary of Recommendations**

1. Pharmacotherapy for the continued treatment of opioid use disorders, or the initiation of pharmacotherapy, has been shown to be effective and is recommended for prisoners and parolees regardless of the length of their sentenced term.
2. Individuals with opioid use disorder who are within the criminal justice system should be treated with some type of pharmacotherapy in addition to psychosocial treatment.
3. Opioid agonists (methadone and buprenorphine) and antagonists (naltrexone) may be considered for treatment. There is insufficient evidence to recommend any one treatment as superior to another for prisoners or parolees.
4. Pharmacotherapy should be initiated a minimum of 30 days before release from prison.

**Areas for Further Research**

Further research is needed on the effectiveness of pharmacotherapy in prisoner populations.

**PART 13: NALOXONE FOR THE TREATMENT OF OPIOID OVERDOSE**

**Introduction**

Death from opioid overdose is a growing epidemic in the United States. Poisoning deaths involving opioid analgesics have more than tripled in the United States since 1999.\textsuperscript{164} Unintentional poisoning (primarily due to drug overdose) is now the leading cause of injury-related death among Americans aged 25–64, having surpassed motor vehicle accidents in 2009.\textsuperscript{165} Patients who overdose on opioids are in a life-threatening situation that requires immediate medical intervention. Naloxone is a mu-opioid antagonist with well-established safety and efficacy that can reverse opioid overdose and prevent fatalities. As well, naloxone can and should be administered to pregnant women in cases of overdose to save the mother’s life.

As of December 15, 2104, a total of 27 states (NM, NY, IL, WA, CA, RI, CT, MA, NC, OR, CO, VA, KY, MD, VT, NJ, OK, UT, TN, ME, GA, WI, MN, OH, DE, PA, and MI) and the District of Columbia amended their state laws to make it easier for medical professionals to prescribe and dispense naloxone, and for lay administrators to use it without fear of legal repercussions.\textsuperscript{166} State laws generally dictate various levels of prescriptive authority and generally speaking discourage the prescription of drugs to an individual other than the intended recipient, third-party prescription, or to a person the physician has not examined to be used in specific scenarios to assist others (prescription via standing order).

**Patients and Significant Others/Family Members**

Patients who are being treated for opioid use disorder, and their family members or significant others, should be given prescriptions for naloxone. Patients and family members/significant others should be trained in the use of naloxone in overdose. The practice of coprescribing naloxone for home use in the event of an overdose situation experienced by the patient or by any others in the household is endorsed by ASAM in a public policy statement and by SAMHSA in its toolkit on opioid overdose.\textsuperscript{167,168}

**Individuals Trained and Authorized to Use Naloxone**

Until recently, administration of naloxone for the treatment of opioid overdose was only recommended for hospital personnel and paramedics. However, efforts are underway to expand the use of naloxone for the treatment of overdose to other first responders, including emergency medical technicians, police officers, firefighters, correctional officers, and others who might witness opioid overdose such as addicted individuals and their families. The primary issues to be considered in this Practice Guideline include the safety and efficacy of naloxone for the treatment of opioid overdose by first responders and bystanders, and the best form of naloxone to use for this purpose.

**Safety and Efficacy of Bystander Administered Naloxone**

Although there is ample evidence supporting the safety and efficacy of naloxone for the treatment of opioid overdose,\textsuperscript{164,169,170} less is known about the effectiveness of naloxone used by other first responders and bystanders. Naloxone has been shown to be effective when used by paramedics.\textsuperscript{171,172} There are no trials specifically evaluating the effectiveness of naloxone when administered by nonmedical first responders such as police officers and firefighters.

There have been a number of nonrandomized studies evaluating the effectiveness of community-based overdose prevention programs that include the distribution of naloxone.
to nonmedical personnel. In a comprehensive review of these trials, Clark et al. concluded that bystanders (mostly opioid users) can and will use naloxone to reverse opioid overdose when properly trained, and that this training can be done successfully through these programs. The authors acknowledge that the lack of randomized controlled trials of community-based overdose prevention programs limits conclusions about their overall effectiveness. SAMHSA supports the use of naloxone for the treatment of opioid overdose by bystanders in their Opioid Overdose Prevention Toolkit.

Routes of Administration

Naloxone is marketed in vials for injection and in an autoinjector for either IM or subcutaneous (SC) use. The US FDA-approved autoinjectors were designed to be used by a patient or family member for the treatment of opioid overdose. There is not yet an US FDA-approved intranasal formulation – there are only kits made available to deliver the injectable formulation intranasally. Despite the intranasal formulation’s current lack of US FDA approval, it is being used off-label by first responders.

Although there are some data from head-to-head trials suggesting that IM naloxone may be superior to intranasal naloxone, there are few studies comparing the superiority of naloxone by route of administration, including intranasal, IM, or intravenous. The present available intranasal naloxone formulation is not dispensed in a preloaded syringe and this may affect its usefulness. More research is needed to definitively assess the relative effectiveness of injectable vs. intranasal naloxone. In addition, the development of a more convenient administration device for intranasal naloxone could improve the effectiveness of this form of naloxone.

Summary of Recommendations

(1) Naloxone should be given in case of opioid overdose.
(2) Naloxone can and should be administered to pregnant women in cases of overdose to save the mother’s life.
(3) The Guideline Committee, based on consensus opinion, recommends that patients who are being treated for opioid use disorder and their family members/significant others be given prescriptions for naloxone. Patients and family members/significant others should be trained in the use of naloxone in overdose.
(4) The Guideline Committee, based on consensus opinion, recommends that first responders, for example, emergency medical services personnel, police officers, and firefighters be trained in and authorized to administer naloxone.

PART 14: AREAS FOR FURTHER RESEARCH

Although this Practice Guideline is intended to guide the assessment, treatment, and use of medications in opioid use disorder, there are areas where there was insufficient evidence to make a recommendation. Further research is needed to compare the advantages of different medications for different patient groups, especially with the emergence of new treatments. The recommended areas of future research are outlined below and presented in the order they were introduced in the guideline.

Assessment and Diagnosis of Opioid Use Disorder (Part 1)

(1) More research is needed on best practices for drug testing during the initial evaluation and throughout the entire treatment process.
(2) Further research is needed on evidence-based approaches for treating opioid use disorder in patients who continue to use marijuana and/or other psychoactive substances.
(3) Whereas research indicates that offering tobacco cessation is a standard for all medical care, more research is needed before specific evidence-based recommendations can be made.

Treatment Options (Part 2)

(1) More research is needed to compare the advantages of agonists and antagonists in the treatment of opioid use disorder. Whereas methadone, buprenorphine, and naltrexone are all superior to no treatment in opioid use disorder, less is known about their relative advantages.

Opioid Withdrawal Management (Part 3)

(1) Further research is needed to evaluate the efficacy and safety of alpha-2 adrenergic and other nonopioid medications that are being used off-label for withdrawal management. These nonopioid medications may have use in transitioning patients onto antagonists for relapse prevention.
(2) Further study is needed on other methods to accelerate the withdrawal process and facilitate the introduction of antagonists.
(3) More research is needed to make recommendations on the optimal duration of a buprenorphine taper.
(4) More research is needed to evaluate the safety of inpatient compared to outpatient withdrawal management.
(5) More research is needed to compare the effectiveness of short versus long tapers with buprenorphine withdrawal management.

Methadone (Part 4)

(1) Further research is needed to assess the effectiveness of added psychosocial treatment to treatment with methadone in OTP or inpatient settings. Treatment with methadone generally includes some psychosocial components. However, it is unclear whether added psychosocial treatment improves patient outcomes.

Research is needed to evaluate the use of ECG in treatment with methadone in preventing adverse events.

Buprenorphine (Part 5)

(1) Further research is needed to evaluate the safety and efficacy of buprenorphine induction conducted in the patient’s own home, although present research supports this practice in select cases.

Naltrexone (Part 6)

(1) Further research is needed to test the relative efficacy of extended-release injectable naltrexone as compared to agonist treatment.
(2) Further research is needed on optimal withdrawal management to initiate treatment with naltrexone and minimize the risk of precipitated withdrawal.

(3) Further research is needed about the safety and efficacy of administering extended-release injectable naltrexone every 3 weeks for individuals who metabolize naltrexone at higher rates.

Psychosocial Treatment in Conjunction With Medications for the Treatment of Opioid Use Disorder (Part 7)

(1) Further research is needed to identify the comparative advantages of specific psychosocial treatments.

(2) Further study is needed to evaluate the effectiveness of psychosocial treatment in combination with specific pharmacotherapies.

(3) More research is needed on which concurrent psychosocial treatments are most effective for different patient populations and treatment settings including primary care.

(4) Further research is needed on which psychosocial treatments are suitable for addition to buprenorphine or treatment with naltrexone, which can be delivered in primary care settings.

Special Populations: Pregnant Women (Part 8)

(1) Further research is needed to establish the safety of buprenorphine or the combination of the buprenorphine/naloxone for use in pregnancy.

Special Population: Individuals With Pain (Part 9)

(1) Further research is needed to examine whether the discontinuation of buprenorphine before elective surgery is necessary. Studies on whether it is possible to provide adequate analgesia by adding full agonist opioid analgesics to the patient’s baseline buprenorphine dose are needed.

Special Populations: Adolescents (Part 10)

(1) More studies are needed to examine the efficacy of pharmacotherapy for adolescents with opioid use disorder. Due to the few clinical trials in adolescents, most of the present recommendations are based on research with adults.

(2) More research is needed to identify which psychosocial treatments, alone and in combination with pharmacotherapy, are best suited for use with adolescents.

Special Populations: Individuals in the Criminal Justice System (Part 12)

(1) Further research is needed on the effectiveness of pharmacotherapy in prisoner populations.

REFERENCES


61. Ruan X, Chen T, Gudin J, et al. Acute opioid withdrawal precipitated by ingestion of crushed embeda (morphine extended release with seques-


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Appendix I: Clinical References Reviewed


Brooking, A. Guidelines for the management of opiate dependent patients at RCHT. Royal Cornwall Hospitals: NHS; 2010.


Substance Abuse and Mental Health Services Administration Center for Substance Abuse Treatment. Clinical Guidelines for the Use of Buprenorphine in the Treatment of Opioid Addiction. Treatment Improvement Protocol (TIP) Series 40. DHHS Publication No. (SMA) 04-3939. Rockville,
MD: Substance Abuse and Mental Health Services Administration; 2004.


Appendix II: Bioequivalence Information and Charts

Bioequivalence of Suboxone® (buprenorphine and naloxone) Sublingual Tablets and Suboxone® Sublingual Film

Patients being switched between Suboxone® (buprenorphine and naloxone) sublingual tablets and Suboxone® sublingual film should be started on the same dosage as the previously administered product. However, dosage adjustments may be necessary when switching between products. Not all strengths and combinations of the Suboxone® sublingual films are bioequivalent to Suboxone® (buprenorphine and naloxone) sublingual tablets as observed in pharmacokinetic studies. Therefore, systemic exposures of buprenorphine and naloxone may be different when patients are switched from tablets to film, or vice-versa. Patients should be monitored for symptoms related to over-dosing or under-dosing.

In pharmacokinetic studies, the 2 mg/0.5 mg and 4 mg/1 mg doses administered as Suboxone® sublingual films showed comparable relative bioavailability to the same total dose of Suboxone® (buprenorphine and naloxone) sublingual tablets, whereas the 8 mg/2 mg and 12 mg/3 mg doses administered as Suboxone® sublingual films showed higher relative bioavailability for both buprenorphine and naloxone compared to the same total dose of Suboxone® (buprenorphine and naloxone) sublingual tablets. A combination of one 8 mg/2 mg and two 2 mg/0.5 mg Suboxone® sublingual films (total dose of 12 mg/3 mg) showed comparable relative bioavailability to the same total dose of Suboxone® (buprenorphine and naloxone) sublingual tablets.

Switching between Suboxone® (buprenorphine and naloxone) Sublingual Film and Suboxone® Sublingual Tablets

Switching between Suboxone® Sublingual Tablets or Films and Bunavail® Buccal Film

The difference in bioavailability of Bunavail® compared to Suboxone® sublingual tablet requires a different dosage strength to be administered to the patient. A Bunavail® 4.2/0.7 mg buccal film provides equivalent buprenorphine exposure to a Suboxone® 8/2 mg sublingual tablet. Patients being switched between Suboxone® dosage strengths and Bunavail® dosage strengths should be started on the corresponding dosage as defined below:

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<th>Corresponding Bunavail® Buccal Film Strength</th>
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<tr>
<td>4/1 mg buprenorphine/naloxone</td>
<td>2.1/0.3 mg buprenorphine/naloxone</td>
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<tr>
<td>8/2 mg buprenorphine/naloxone</td>
<td>4.2/0.7 mg buprenorphine/naloxone</td>
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<tr>
<td>12/3 mg buprenorphine/naloxone</td>
<td>6.3/1 mg buprenorphine/naloxone</td>
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 Dosage and Administration of Zubsolv®

The difference in bioavailability of Zubsolv® compared to Suboxone® tablet requires a different tablet strength to be given to the patient. One Zubsolv® 5.7/1.4 mg sublingual tablet provides equivalent buprenorphine exposure to one Suboxone® 8/2 mg sublingual tablet. The corresponding doses ranging from induction to maintenance treatment are:
Switching between Zubsolv\textsuperscript{®} Sublingual Tablets and other buprenorphine/naloxone combination products

For patients being switched between Zubsolv\textsuperscript{®} sublingual tablets and other buprenorphine/naloxone products dosage adjustments may be necessary. Patients should be monitored for over-medication as well as withdrawal or other signs of under-dosing.

The differences in bioavailability of Zubsolv\textsuperscript{®} compared to Suboxone\textsuperscript{®} tablet requires that different tablet strengths be given to the patient.

One Zubsolv\textsuperscript{®} 5.7/1.4 mg sublingual tablet provides equivalent buprenorphine exposure to one Suboxone\textsuperscript{®} 8/2 mg sublingual tablet.

When switching between Suboxone\textsuperscript{®} dosage strengths and Zubsolv\textsuperscript{®} dosage strengths the corresponding dosage strengths are:

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<th>Maintenance phase: Corresponding sublingual Zubsolv\textsuperscript{®} dose</th>
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<td>8 mg buprenorphine, taken as:</td>
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<td>12 mg buprenorphine, taken as:</td>
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<td>⬢ One 8 mg buprenorphine tablet AND</td>
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<td>⬢ Two 2 mg buprenorphine tablets</td>
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<td>16 mg buprenorphine, taken as:</td>
<td>11.4 mg/2.9 mg Zubsolv\textsuperscript{®}, taken as:</td>
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<td>⬢ Two 8 mg buprenorphine tablets</td>
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Switching between Zubsolv\textsuperscript{®} Sublingual Tablets and other buprenorphine/naloxone combination products

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<td>16 mg/4 mg buprenorphine/naloxone, taken as:</td>
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<td>⬢ Two 8 mg/2 mg sublingual buprenorphine/naloxone tablets</td>
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- Adopted by the ASAM Board of Directors June 1, 2015

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### Appendix III: Guideline Committee Member Relationships with Industry and Other Entities

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<th>Guideline Committee Member</th>
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<td>Sandra D. Comer, PhD</td>
<td>Columbia University and NYSPI, New York, NY, Professor of Neurobiology</td>
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<td>Chinaoz Cunningham, MD, MS</td>
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The above table presents the relationships of Guideline Committee Members during the past 12 months with industry and other entities that were determined to be relevant to this document. These relationships are current as of the completion of this document and may not necessarily reflect relationships at the time of this document’s publication. A person is deemed to have a significant interest in a business if the interest represents ownership of 5% or more of the voting stock or share of the business entity, or ownership of $10,000 or more of the fair market value of the business entity; or if funds received by the person from the business entity exceed 5% of the person’s gross income for the previous year. A relationship is considered to be modest if it is less than significant under the preceding definition. No financial relationship pertains to relationships for which there is no monetary reimbursement. **Indicates significant relationship.
### Appendix IV: ASAM Quality Improvement Council (Oversight Committee) Relationships with Industry and Other Entities

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## Appendix V: External Reviewer Relationships with Industry and Other Entities

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(CVSD Caremark”)

(BHG”)

(Clean Slate”)”

(Clean Slate”)”

(Adopted by the ASAM Board of Directors June 1, 2015)
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<td>Self-employed Physician Oncex Medical Director (January-June 2014)**</td>
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<td>Henrick J. Harwood</td>
<td>National Association of State Alcohol and Drug Abuse Directors, Inc. (NASADAD)</td>
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<td>John A. Renner, Jr., MD</td>
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<td>A. Kenison Roy III, MD</td>
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Note: The ASAM National Practice Guideline was adopted by the ASAM Board of Directors June 1, 2015.
The above table presents the relationships of invited external reviewers during the past 12 months with industry and other entities that were determined to be relevant to this document. These relationships are current as of the completion of this document and may not necessarily reflect relationships at the time of this document’s publication. A person is deemed to have a significant interest in a business if the interest represents ownership of 5% or more of the voting stock or share of the business entity, or ownership of $10,000 or more of the fair market value of the business entity; or if funds received by the person from the business entity exceed 5% of the person’s gross income for the previous year. A relationship is considered to be modest if it is less than significant under the preceding definition. No financial relationship pertains to relationships for which there is no monetary reimbursement. Indicates significant relationship.
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<th>Abuse Deterrent Mechanism</th>
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<tr>
<td>buprenorphine HCl + naloxone</td>
<td><strong>Suboxone</strong></td>
<td>sublingual</td>
<td>Naloxone, a potent opioid antagonist is the deterrent component of Suboxone that is not sublingually absorbed and has minimal oral absorption. If injected parenterally, opioid-tolerant patients will experience withdrawal signs and symptoms thus deterring abuse.</td>
<td><strong>Special risk groups:</strong> Opioid naive. Elderly. Debilitated. Hepatic impairment. &lt;16yrs: not established. Neonatal withdrawal. Pregnancy (Cat.C). Nursing mothers: not recommended. <strong>Warnings/Precautions:</strong> Abuse potential. Increased risk of respiratory depression. COPD or cor pulmonale. Increased intracranial pressure. Head injury. Orthostatic hypotension. Biliary tract dysfunction. Acute abdominal conditions. Caution in hypothyroidism, adrenal insufficiency (eg, Addison’s disease), CNS depression, coma, toxic psychosis, prostatic hypertrophy or urethral stricture, delirium tremens, kyphoscoliosis. Acute alcoholism. Hepatitis. Jaundice. Withdrawal symptoms.</td>
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<tr>
<td>hydromorphone HCl</td>
<td><strong>Exalgo</strong></td>
<td>ext-rel tab</td>
<td>It is crush and extraction resistant. Utilizes the tamper-resistant technology, OROS Push-Pull osmotic delivery system which releases hydromorphone at a controlled rate over an extended period of time.</td>
<td><strong>Special risk groups:</strong> Elderly. Cachectic. Debilitated. Severe renal or hepatic impairment. ≤17yrs: not established. Neonatal withdrawal syndrome. Pregnancy (Cat.C). Labor and delivery, nursing mothers: not recommended. <strong>Contraindications:</strong> Opioid non-tolerant. Significant respiratory depression. Acute or severe asthma. Sulfite allergy. Known or suspected paralytic ileus. GI or GU obstruction or stricture. <strong>Warnings/Precautions:</strong> Abuse potential. Increased risk of fatal respiratory depression. Significant COPD or cor pulmonale. Orthostatic hypotension. Increased intracranial pressure. Head injury. Avoid if impaired consciousness or coma. Biliary tract disease. Acute pancreatitis. Convulsive disorders. Avoid abrupt cessation.</td>
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<td>morphine + naltrexone</td>
<td><strong>Embeda</strong> ext-rel cap</td>
<td>Naltrexone, an opioid antagonist, is sequestered in the pellets core, and are released with manipulation by crushing. Absorption of naltrexone may precipitate withdrawal, thus deterring abuse.</td>
<td><strong>Special risk groups:</strong> Renal or hepatic impairment. Elderly. Cachectic. <strong>Contraindications:</strong> Significant respiratory depression. Acute or severe bronchial asthma (in absence of resuscitative equipment or in unmonitored setting). Paralytic ileus. <strong>Warnings/Precautions:</strong> Abuse potential. Risk of respiratory depression. COPD, cor pulmonale. CNS depression. Shock. Head injury. Increased intracranial pressure. Avoid if impaired consciousness, coma, or GI obstruction. Seizures. Biliary tract disease. Acute pancreatitis.</td>
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<td>oxycodone HCl</td>
<td><strong>Oxaydo</strong> immediate-release tab</td>
<td>Utilizes AVERSION technology, a combination of active and inactive ingredients that provide abuse deterrent features. If dissolved for IV inj, a viscous gelatinous mixture will form trapping oxycodone inside, thus making it not suitable for injection. If crushed and snorted, inactive ingredients will cause nasal discomfort.</td>
<td><strong>Special risk groups:</strong> Elderly. Debilitated. Severe renal or hepatic impairment. &lt;18yrs: not established. Neonates may experience withdrawal or respiratory depression. Pregnancy (Cat.B). <strong>Contraindications:</strong> Respiratory depression in an unmonitored setting or in the absence of resuscitative equipment. Paralytic ileus. Acute or severe bronchial asthma or hypercarbia. <strong>Warnings/Precautions:</strong> Abuse potential. Risk of respiratory depression. COPD or cor pulmonale. Patients with decreased respiratory reserve (eg, severe kyphoscoliosis). Head injury. Increased intracranial pressure. CNS depression. Orthostatic hypotension. Circulatory shock. Toxic psychosis. Acute alcoholism. Delirium tremens. Acute abdominal conditions. Biliary tract disease. Acute pancreatitis. GI or GU obstruction. Addison’s disease. Hypothyroidism. Prostatic hypertrophy. Urethral stricture. Convulsive disorder. Avoid abrupt cessation.</td>
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<tr>
<td>oxycodone HCl</td>
<td><strong>Oxycontin</strong> controlled-release tab</td>
<td>Utilizes INTAC technology consisting of a specific manufacturing process and excipients to resist crushing, forms a gel that cannot be easily injected or snorted if dissolved in solutions, and to resist extraction of active drug via solvents.</td>
<td><strong>Special risk groups:</strong> Elderly. Cachectic. Debilitated. Renal or hepatic impairment. &lt;18yrs: not established. Neonatal withdrawal syndrome. Pregnancy (Cat.B). <strong>Contraindications:</strong> Significant respiratory depression. Acute or severe bronchial asthma in an unmonitored setting or in the absence of resuscitative equipment. Paralytic ileus or GI obstruction. <strong>Warnings/Precautions:</strong> Abuse potential. Life-threatening respiratory depression; monitor during initiation and titration. COPD or cor pulmonale. Orthostatic hypotension. Circulatory shock. Head injury. Increased intracranial pressure. Avoid in impaired consciousness, coma. Difficulty swallowing. Underlying GI disorders (eg, esophageal or colon cancer with a small GI lumen). Biliary tract disease. Acute pancreatitis. Convulsive disorders. Avoid abrupt cessation.</td>
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**OPIOIDS WITH ABUSE DETERRENT PROPERTIES** (Part 3 of 3)

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<td>Opana ER</td>
<td>ext-rel tab</td>
<td>Utilizes INTAC technology consisting of a specific manufacturing process and excipients to resist crushing, form into a gel that cannot be easily injected or snorted if dissolved in solutions, and to resist extraction of active drug via solvents.</td>
<td><strong>Special risk groups:</strong> Elderly, Cachectic. Debilitated. Renal or hepatic impairment. &lt;18 yrs: not established. Neonatal withdrawal syndrome. Pregnancy (Cat.C), labor &amp; delivery, nursing mothers: not recommended. <strong>Contraindications:</strong> Significant respiratory depression. Acute or severe bronchial asthma or hypercarbia. Paralytic ileus. Moderate or severe hepatic impairment. <strong>Warnings/Precautions:</strong> Abuse potential. Life-threatening respiratory depression; monitor during initiation and titration. COPD or cor pulmonale. Severe hypotension. Circulatory shock. Head injury. Increased intracranial pressure. Avoid in impaired consciousness, coma, GI obstruction. Biliary tract disease. Acute pancreatitis. Convulsive disorders. Avoid abrupt cessation.</td>
</tr>
</tbody>
</table>

**NOTES**

Abuse-deterrent formulations can be categorized as follow:

**Agonist/Antagonist combinations** – An opioid antagonist can be added to interfere with, reduce, or defeat the euphoria associated with abuse. The antagonist can be sequestered and released only upon manipulation of the product. For example, a drug product may be formulated such that the substance that acts as an antagonist is not clinically active when the product is swallowed but becomes active if the product is crushed and injected or snorted.

**Aversion** – Substances can be combined to produce an unpleasant effect if the dosage form is manipulated prior to ingestion or a higher dosage than directed is used.

**Delivery System (including depot inj forms and implants)** – Certain drug release designs or the method of drug delivery can offer resistance to abuse.

**Physical/Chemical barriers** – Physical barriers can prevent chewing, crushing, cutting, grating, or grinding. Chemical barriers can resist extraction of the opioid using common solvents like water, alcohol, or other organic solvents. Physical and chemical barriers can change the physical form of an oral drug rendering it less amenable to abuse.

**Prodrug** – A prodrug that lacks opioid activity until transformed in the GI tract can be unattractive for IV inj or intranasal routes of abuse.

**Combination** – Two or more of the above methods can be combined to deter abuse.

**REFERENCES**


(Revised 3/2016)
FDA Facts: Abuse-Deterrent Opioid Medications

The FDA is encouraging the development of opioid formulations with abuse-deterrent properties to help combat the opioid epidemic. The agency recognizes that opioids with abuse-deterrent properties (AD) are not abuse-proof, but are a step toward products that will help reduce abuse. The FDA fully supports efforts to better understand the impact of these products in the real-world setting and develop innovative formulations that have the potential to make abuse of these products more difficult or less rewarding. The FDA is working with many drug makers to support advancements in this area and help drug makers navigate the regulatory path to market as quickly as possible. In working with industry, the FDA is taking a flexible, adaptive approach to the evaluation and labeling of potentially AD products.

What makes an opioid abuse-deterrent

Formulations with abuse-deterrent properties target the known or expected routes of abuse, such as crushing in order to snort or dissolving in order to inject, for the specific opioid drug substance. The science of abuse deterrence is relatively new, and both the formulation technologies and the analytical, clinical, and statistical methods for evaluating those technologies are rapidly evolving.

Abuse-deterrent is not the same as abuse-proof

The fact that a product has FDA-approved labeling describing abuse-deterrent properties does not mean the product is impossible to abuse or that these properties necessarily prevent overdose and death – currently marketed technologies do not effectively deter one of the most common forms of opioid abuse – swallowing a number of intact tablets or capsules. Because opioid medications must in the end be able to deliver the opioid to the patient, there may always be some potential for abuse of these products.

How abuse-deterrent opioids can help with the opioid abuse epidemic

Because AD products with abuse-deterrent properties are expected to reduce abuse compared to non-AD products, the agency is very interested in encouraging and supporting ADFs as part of the FDA’s overarching Opioid Action Plan (/NewsEvents/Newsroom/FactSheets/ucm484714.htm).

The FDA looks forward to a future in which most or all opioid medications are available in formulations that are less susceptible to abuse than the formulations that lack abuse-deterrent properties. The FDA also supports the efficient development of non-opioid alternatives for treating pain.

All of the companies that have approved brand name opioids with AD properties reflected in their labeling are being required to conduct postmarket studies to determine the impact that AD technologies are having in practice. Having that information is critical, and will allow us to take the next important steps in this area.
How the FDA decides what drugs are considered abuse-deterrent
To meet the FDA’s standards, it is essential that every opioid with labeling describing its AD properties be supported by evidence from in vitro (laboratory) and, where appropriate, in vivo (human) studies. Any communications from the sponsor companies regarding AD properties must be truthful and not misleading (based on a product’s labeling), and supported by sound science taking into consideration the totality of the data for the particular drug. Claims for AD opioid products that are false, misleading, and/or insufficiently proven do not serve the public health.

The FDA has issued two guidances to help industry understand how the agency currently is evaluating these products. These guidances provide the FDA’s recommendations for how the agency evaluates the abuse deterrence of opioids – such as the ability of a drug to deter abuse by snorting or injection:

• “Guidance for Industry: Abuse-Deterrent Opioids – Evaluation and Labeling (/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/UCM334743.pdf)” (final guidance) explains the FDA’s current thinking about the studies that should be conducted to demonstrate that a given formulation has abuse-deterrent properties. It also makes recommendations about how those studies should be performed and evaluated, and discusses what labeling claims may be approved based on the results of those studies.

• “General Principles for Evaluating the Abuse Deterrence of Generic Solid Oral Opioid Drug Products (/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/UCM492172.pdf)” (draft guidance) includes recommendations about the studies that should be conducted to demonstrate that a generic opioid is no less abuse-deterrent than the brand name product that has labeling describing abuse-deterrent properties, with respect to all potential routes of abuse.

Opioid medications with FDA-approved labeling describing abuse-deterrent properties
The FDA has approved the following extended-release/long-acting (ER/LA) opioids with labeling describing AD properties consistent with the FDA’s Guidance for Industry: Abuse-Deterrent Opioids – Evaluation and Labeling:

• OxyContin
• Targiniq ER
• Embeda
• Hysingla ER
• MorphaBond
• Xtampza ER
• Troxyca ER

There are currently NO immediate-release with FDA-approved AD labeling consistent with the 2015 guidance for industry, “Abuse-Deterrent Opioids — Evaluation and Labeling.” There also are no currently approved generic versions of opioids with approved AD labeling.
SAMHSA’s Division of Pharmacologic Therapies (DPT), part of the SAMHSA Center for Substance Abuse Treatment (CSAT), is responsible for certifying that an Opioid Treatment Program (OTP) conforms with federal regulations governing treatment for substance use disorders.

Before obtaining SAMHSA certification, OTPs must complete the accreditation process and meet other requirements outlined in the Certification of Opioid Treatment Programs, 42 Code of Federal Regulations (CFR) 8. Learn about the federal legislation, regulations, and guidelines that apply to OTPs and medication-assisted treatment (MAT).

A program may apply for a provisional (initial) certification as it is working towards becoming accredited by a SAMHSA-approved OTP accrediting body. The provisional certification is a temporary certification granted to a new OTP for up to one year, during which time it must become accredited.

After a provisionally certified program becomes accredited, it must apply to SAMHSA for full certification via the renewal application. Once certified, OTPs must renew certification annually or every three years depending on the accreditation timeframe awarded.

Programs applying for accreditation or certification must also comply with the applicable laws and regulations in their states. Find more information about individual state regulations by contacting your State Opioid Treatment Authority.

Application for Provisional Certification to Use Opioid Drugs in Treatment

Programs seeking provisional certification as an OTP must use the online Form SMA-162: Application for Certification to Use Opioid Drugs in a Treatment Program.

Each application requires different supporting documentation. This documentation can be uploaded along with Form SMA-162. The acceptable file(s) for uploading may be in any of the following formats:

- Text files
- TIFF image files
- PDF files
- Word documents (.doc or .docx)

New applicants should prepare the following supporting documents:

- A copy of the application to the accrediting body to which your program has applied. The document should indicate the date on which your program applied for accreditation, the dates of any accreditation surveys that have taken place or are expected to take place, and the expected schedule for completing the accreditation process.
- A description of the organizational structure of the program with a chart indicating the position and title of key OTP personnel. The description should include the name and complete address of any central administration or larger organizational structure to which the OTP is responsible.
A diagram and description of the facilities to be used by this program demonstrating how the facilities are adequate for drug dispensing and for individual and group counseling. The description shall specify how the OTP will provide adequate medical, counseling, vocational, educational, and assessment services at the primary facility, unless the program sponsor has entered into a formal documented agreement with another entity.

The name, address, and description of each hospital, institution, clinical laboratory, or other facility used by the OTP to provide the necessary medical and rehabilitative services.

The name and address of any facility other than the primary dispensing site where methadone will be dispensed either on a regular basis or on weekends, and as a service to the treatment program.

A copy of the medical director’s Drug Enforcement Administration (DEA) registration, state license, and curriculum vitae. If the medical director is also the medical director for another treatment program, enclose a written justification for the feasibility of such an arrangement. This feasibility shall address the portion of the medical director’s time spent in the treatment of unrelated medical patients and memberships on boards and committees that compete for time allocated to the treatment programs.

The name and state license number of all OTP personnel (other than program physicians) licensed by law to dispense narcotic drugs even if they are not, at present, responsible for administering or dispensing methadone at the program. These would include pharmacists, registered nurses, and licensed practical nurses.

A tentative schedule showing dispensing hours, counseling hours, and hours to be worked by physicians, nurses, and counselors. Any work to be performed away from the primary dispensing site should also be stated. The program must be open for dispensing at least six days per week. Also, describe how the dispensing hours are adequate and will ensure quality of patient care per 42 CFR 8.12 (b).

A list of the program’s funding sources, including the name and address of each governmental agency providing funds.

A description of the number of patients that will be treated by the program when it is operating at capacity.

An affirmative statement that the treatment program will use containers having safety closures for all take-home medication dispensed to outpatients.

Acknowledgement that the medical director and/or program physician must register for an account on the SAMHSA OTP Extranet website to submit federal patient exception requests (Form SMA-168) online. Applicants may register for an extranet account at the SAMHSA OTP Extranet website. After the request is verified, the applicant will receive an email with a username and password for use of the website.

Step-by-Step Application Instructions for Provisional Certification

1. Access the online Form SMA-162: Application for Certification to Use Opioid Drugs in a Treatment Program.
2. In the first row, under “Purpose of Application,” select “Provisional Certification.”
3. Using the format examples as guidance, fill out all of the questions indicated with an asterisk. Failure to follow the required format will not allow the application to move forward.
4. To continue, choose the “Next” button at the bottom of the page.
5. Upload the required supporting documentation.
6. To submit the application, choose the “Submit” button at the bottom of the form.
7. To help you sign the form electronically, SAMHSA will send you an email with instructions. If this step is not completed, the application cannot be accepted or processed.

For assistance, find the regional OTP Compliance Officer that you will be working with in your state.
Certification Renewal and Other Uses for Form SMA-162

Program sponsors must also use Form SMA-162 to renew certification for an existing OTP. Those program sponsors wishing to submit Form SMA-162 to renew their OTP certification must submit the form via their account on the [SAMHSA OTP Extranet website](https://www.samhsa.gov). All OTPs have an account on the site.

Form SMA-162 is also used to:

For instructions on accessing your program's account, contact the SAMHSA OTP Extranet Information Center at:

- 866-OTP-CSAT (866-687-2728)
- [otp-extranet@opioid.samhsa.gov](mailto:otp-extranet@opioid.samhsa.gov) (link sends e-mail)

For more information about OTP certification and opening a treatment program, contact one of SAMHSA's regional [OTP Compliance Officers](https://www.samhsa.gov).
Apply for a Physician Waiver

Apply for a physician waiver to prescribe or dispense buprenorphine under the Drug Addiction Treatment Act of 2000 (DATA 2000).

To receive a waiver to practice opioid dependency treatment with approved buprenorphine medications, a physician must notify the SAMHSA Center for Substance Abuse Treatment (CSAT) of their intent to practice this form of medication-assisted treatment (MAT). The notification of intent must be submitted to CSAT before the initial dispensing or prescribing of opioid treatment.

Completing the Waiver Notification Form

In order to complete the form, physicians can do the following:

- Complete the Online Request for New Waiver
- Complete the Online Request for Patient Limit Increase

The form contains all the data items necessary to expedite the timely processing of waiver notifications. The notification of intent must contain information on the physician’s qualifying credentials and additional certifications, including their capacity to refer patients for appropriate counseling and other services. It must also confirm that the physician will not have more than 30 patients at any one time for the first year, regardless of the number of practice locations. Physicians also must fax their training certificate after completing the waiver form to show that they have completed the required training to prescribe and dispense buprenorphine.

One year after the physician submits the initial notification, the physician can submit a second notification stating the need and intent to treat up to 100 patients. Learn how to apply to increase patient limits.

SAMHSA reviews applications within 45 days of receipt. Once the application process is complete and the application is approved, SAMHSA will email a letter that confirms the waiver and includes the physician’s prescribing identification number. If it has been more than 45 days since a physician has submitted an application or if a physician submitted an application and did not receive an acknowledgement of receipt, contact CSAT’s Buprenorphine Information Center at 866-BUP-CSAT (866-287-2728) or send an email to info@buprenorphine.samhsa.gov (link sends e-mail).

Apply to Begin Treatment with Buprenorphine Immediately

To receive permission to provide treatment while a notification is under review, check the box "New Notification, with the intent to immediately facilitate treatment of an individual (one) patient" on the notification form. Checking the “immediate” box is only one of three requirements a physician must meet in order to start a patient on treatment, and immediate treatment is limited to one patient per form submitted. Each form must have a different submission date. Other requirements the applicant must address, include:

- Meeting “in good faith” the criteria for obtaining a waiver such as having a valid medical license, valid Drug Enforcement Administration (DEA) registration, qualified, or completion of eight hours of qualifying training
- Contacting CSAT’s Buprenorphine Information Center at 866-BUP-CSAT (866-287-2728) to verify that the notification form has been received and to notify CSAT of the physician’s intent to begin treating one patient

Since the physician will not have a unique identifying number, pharmacists may question prescriptions received under this provision. Pharmacists may contact SAMHSA, if additional information is needed, at 866-BUP-CSAT
(866-287-2728) or by sending an email to info@buprenorphine.samhsa.gov (link sends e-mail).
Buprenorphine Training for Physicians

Find information about the eight-hour buprenorphine waiver training courses that are required for physicians to prescribe and dispense buprenorphine.

Under the Drug Addiction Treatment Act of 2000 (DATA 2000), physicians are required to complete an eight-hour training to qualify for a waiver to prescribe and dispense buprenorphine. The following SAMHSA-supported continuing medical education (CME) courses can help physicians qualify to prescribe buprenorphine in an office setting (courses may require registration and include fees):

Learn more about buprenorphine and how to qualify for a physician waiver.

Disclaimer

The views expressed in these courses and related materials do not necessarily reflect the official policies of the Department of Health and Human Services (HHS); nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.

Acknowledgements

SAMHSA-supported courses are planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through joint sponsorship with the host organizations and the SAMHSA Center for Substance Abuse Treatment (CSAT).
CONTACT INFORMATION

Patient Name: _____________________________________________________________ Patient ID: __________________________ Patient DOB: _____/_____/_____

Patient Address: _____________________________________________________________________________________________________________  Patient Phone: (______) _______________________________

City: _________________________________________________ State: ______________________________________________ Zip Code: ______________________

Prescribing Physician:___________________________________________________________________ NPI:___________________ X#:___________________________

Physician Address: ___________________________________________________________________________________________________________________________

City: _________________________________________________ State: ______________________________________________ Zip Code: ______________________

State License:_______________________________________________

Office Contact: ______________________________________ Office Phone: (________) _______________________ Office Fax: (________) ______________________

PROFESSIONAL INFORMATION

Medication Requested: _______________________________________________________________________________________________________________________

Dosage Strength Requested: ______________________________ Quantity per month:___________ Directions for Use: ______________________________________

Patient Diagnosis:____________________________________________________ Other relevant Diagnoses:__________________________________________________

Induction Phase:____________  Maintenance Phase: ___________    Psychosocial Treatment (for maintenance treatment): ☐ Yes ☐ No

Dates and results of Toxicology Testing: __________________________________________________________________________________________________________

ADDITIONAL QUESTIONS

Has the patient been advised of the risk of concomitant use of alcohol, benzodiazepines and other sedatives? ☐ Yes ☐ No

Will the patient be monitored during therapy for signs and symptoms of abuse/misuse as well as compliance and the potential diversion to others? ☐ Yes ☐ No

Will there be ongoing assessment as to the continued need for Buprenorphine therapy and consideration of taper and discontinuation if clinically appropriate? ☐ Yes ☐ No

For women of child bearing age, appropriate assessment of possibility of pregnancy? ☐ Yes ☐ No

In States with Prescription Monitoring Programs, has it been reviewed? ☐ Yes ☐ No

For patients with co-occurring behavioral health disorders, referral to mental health assessment and/or treatment as indicated? ☐ Yes ☐ No

For dosing higher than 24mg/day (Suboxone/Subutex), 17.1mg/day (Zubsolv) or 12.6mg/day (Bunavail), documentation as to rationale: ______________________________

Is the prescriber treating more than 100 patients?: ☐ Yes ☐ No

Will the patient be using any short or long acting opiates concurrently with the Buprenorphine?: ☐ Yes ☐ No

Other/Supporting information for this request: ______________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________

Physician Signature: ____________________________________________ Date and Time:__________________________________________
More Treatment Resources

Medication Assisted Treatment for Opioid use Disorders (A Rule by the Health and Human Services Department)


Link below has more research based articles:


http://www.fda.gov/NewsEvents/Newsroom/FactSheets/ucm514939.htm
Guideline Resources and Handouts
SAMHSA
Opioid Overdose Prevention TOOLKIT:

Facts for Community Members
Five Essential Steps for First Responders
Information for Prescribers
Safety Advice for Patients & Family Members
Recovering From Opioid Overdose
# SAMHSA Opioid Overdose Prevention Toolkit

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SCOPE OF THE PROBLEM

Opioid overdose continues to be a major public health problem in the United States. It has contributed significantly to accidental deaths among those who use or misuse illicit and prescription opioids. In fact, U.S. overdose deaths involving prescription opioid analgesics increased to about 19,000 deaths in 2014-2015, more than three times the number in 2001. According to Centers for Disease Control and Prevention (CDC) data, health care providers wrote 259 million prescriptions for painkillers in 2012, enough for every American adult to have a bottle of pills.3-4

WHAT ARE OPIOIDS? Opioids include illegal drugs such as heroin, as well as prescription medications used to treat pain such as morphine, codeine, methadone, oxycodone (OxyContin®, Percodan®, Percocet®), hydrocodone (Vicodin®, Lortab®, Norco®), fentanyl (Duragesic®, Fentora®), hydromorphone (Dilaudid®, Exalgo®), and buprenorphine (Subutex®, Suboxone®).

Opioids work by binding to specific receptors in the brain, spinal cord, and gastrointestinal tract. In doing so, they minimize the body’s perception of pain. However, stimulating the opioid receptors or “reward centers” in the brain can also trigger other systems of the body, such as those responsible for regulating mood, breathing, and blood pressure.

HOW DOES OVERDOSE OCCUR? A variety of effects can occur after a person takes opioids, ranging from pleasure to nausea, vomiting, severe allergic reactions (anaphylaxis), and overdose, in which breathing and heartbeat slow or even stop.

Opioid overdose can occur when a patient deliberately misuses a prescription opioid or an illicit drug such as heroin. It can also occur when a patient takes an opioid as directed, but the prescriber miscalculated the opioid dose or an error was made by the dispensing pharmacist or the patient misunderstood the directions for use.

Also at risk are individuals who misuse opioids and combine them with sedative hypnotic agents resulting in sedation and respiratory depression.5,6

WHO IS AT RISK? Anyone who uses opioids for long-term management of chronic cancer or non-cancer pain is at risk for opioid overdose, as are persons who use heroin. Others at risk include persons who are:

- Receiving rotating opioid medication regimens (and thus are at risk for incomplete cross-tolerance).
- Discharged from emergency medical care following opioid intoxication or poisoning.
- At high risk for overdose because of a legitimate medical need for analgesia, coupled with a suspected or confirmed substance use disorder, or non-medical use of prescription or illicit opioids.
- Completing mandatory opioid detoxification or abstinent for a period of time (and presumably with reduced opioid tolerance and high risk of relapse to opioid use).
- Recently released from incarceration and who have a history of opioid use disorder (and presumably have reduced opioid tolerance and high risk of relapse to opioid use).

Tolerance develops when someone uses an opioid drug regularly, so that their body becomes accustomed to the drug and needs a larger or more frequent dose to continue to experience the same effect. Loss of tolerance occurs when someone stops taking an opioid after long-term use. When someone loses tolerance and then takes the opioid drug again, they can experience serious adverse effects, including overdose, even if they take an amount that caused them no problem in the past.
STRATEGIES TO PREVENT OVERDOSE DEATHS

STRATEGY 1: Encourage providers, persons at high risk, family members, and others to learn how to prevent and manage opioid overdose. Providers should be encouraged to keep their knowledge current about evidence-based practices for the use of opioid analgesics to manage pain, as well as specific steps to prevent and manage opioid overdose.

Federally funded Continuing Medical Education courses are available to providers at no charge at http://www.OpioidPrescribing.com (a series of courses funded by the Substance Abuse and Mental Health Services Administration (SAMHSA)).

Helpful information for laypersons on how to prevent and manage overdose is available from Project Lazarus at http://www.projectlazarus.org or from the Massachusetts Health Promotion Clearinghouse at http://www.maclearinghouse.org.

STRATEGY 2: Ensure access to treatment for individuals who are misusing or addicted to opioids or who have other substance use disorders. Effective treatment of substance use disorders can reduce the risk of overdose and help overdose survivors attain a healthier life. Medication-assisted treatment, as well as counseling and other supportive services, can be obtained at SAMHSA-certified and Drug Enforcement Administration (DEA)-registered opioid treatment programs (OTPs), as well as from physicians who are trained to provide care in office-based settings with medications such as buprenorphine and naltrexone.

Information on treatment services available in or near your community can be obtained from your state health department, your state alcohol and drug agency, or SAMHSA (see page 4).

STRATEGY 3: Ensure ready access to naloxone. Opioid overdose-related deaths can be prevented when naloxone is administered in a timely manner. As a narcotic antagonist, naloxone displaces opiates from receptor sites in the brain and reverses respiratory depression that usually is the cause of overdose deaths.⁷

On the other hand, naloxone is not effective in treating overdoses of benzodiazepines (such as Valium®, Xanax®, or Klonopin®), barbiturates (Seconal® or Fiorinal®), clonidine, Elavil®, GHB, ketamine, or synthetics. It is also not effective in overdoses with stimulants, such as cocaine and amphetamines (including methamphetamine and Ecstasy). However, if opioids are taken in combination with other sedatives or stimulants, naloxone may be helpful.

Naloxone injection has been approved by the United States Food and Drug Administration (FDA) and used for more than 40 years by emergency medical services (EMS) personnel to reverse opioid overdose and resuscitate persons who otherwise might have died in the absence of treatment.⁸
Naloxone does not have the potential for abuse. It reverses the effects of opioid overdose. Injectable naloxone is relatively inexpensive. It typically is supplied as a kit with two syringes. These kits require training on how to administer naloxone using a syringe. The FDA has also approved an intranasal naloxone product, called Narcan® Nasal Spray, and a naloxone auto-injector, called Evzio®. The intranasal spray is a pre-filled, needle-free device that requires no assembly. The auto-injector can deliver a dose of naloxone through clothing, if necessary, when placed on the outer thigh.

Prior to 2012, just six states had any laws that expanded access to naloxone or limited criminal liability. Today, 42 states and the District of Columbia have statutes that provide criminal liability protections to laypersons or first responders who administer naloxone. Thirty-nine states and the District of Columbia have statutes that provide civil liability protections to laypersons or first responders who administer naloxone. Thirty-eight states have statutes that offer criminal liability protections for prescribing or distributing naloxone. Thirty-three states have statutes that offer civil liability protections for prescribing or distributing naloxone. And 42 states have statutes that allow naloxone distribution to third parties or first responders via direct prescription or standing order. To find states that have adopted relevant laws, visit the White House website at https://www.whitehouse.gov/sites/default/files/ondcp/Blog/naloxonecirclechart_january2016.pdf.

STRATEGY 4: Encourage the public to call 911. An individual who is experiencing opioid overdose needs immediate medical attention. An essential first step is to get help from someone with medical expertise as quickly as possible. Therefore, members of the public should be encouraged to call 911. All they have to say is “Someone is not breathing” and give a clear address and location. Thirty-two states and the District of Columbia have “Good Samaritan” statutes that prevent arrest, charge, or prosecution for possession of a controlled substance or paraphernalia if emergency assistance is sought for someone who is experiencing an opioid-induced overdose.

STRATEGY 5: Encourage prescribers to use state Prescription Drug Monitoring Programs. State Prescription Drug Monitoring Programs (PDMPs) have emerged as a key strategy for addressing the misuse of prescription opioids and thus preventing opioid overdoses and deaths. Specifically, prescribers can check their state’s PDMP database to determine whether a patient is filling the prescriptions provided and/or obtaining prescriptions for the same or a similar drug from multiple prescribers.

While nearly all states now have operational PDMPs, the programs differ from state to state in terms of the exact information collected, how soon that information is available to prescribers, and who may access the data. Therefore, information about the program in a particular state is best obtained directly from the state PDMP or from the board of medicine or pharmacy.
RESOURCES FOR COMMUNITIES
Resources that may be useful to local communities and organizations are found at:

Substance Abuse and Mental Health Services Administration (SAMHSA)
- National Helpline:
  1-800-662-HELP (4357) or 1-800-487-4889 (TDD — for hearing impaired)
- Behavioral Health Treatment Locator:
  https://findtreatment.samhsa.gov to search by address, city, or zip code
- Buprenorphine Treatment Physician Locator:
- State Substance Abuse Agencies:
  https://findtreatment.samhsa.gov/TreatmentLocator/faces/about.jspx
- Center for Behavioral Health Statistics and Quality (CBHSQ):
  http://www.samhsa.gov/data
- SAMHSA Publications: http://store.samhsa.gov
  1-877-SAMHSA (1-877-726-4727)

Centers for Disease Control and Prevention (CDC)
http://www.cdc.gov/drugoverdose/epidemic
http://www.cdc.gov/homeandrecreationalsaftys/passioning

White House Office of National Drug Control Policy (ONDCP)
State and Local Information: http://www.whitehouse.gov/ondcp/state-map

Association of State and Territorial Health Officials
(ASTHO) ASTHO 214 Policy Inventory: State Action to Prevent and Treat Prescription Drug Abuse: http://www.astho.org/rx/profiles/Rx-Survey-Highlights

National Association of State Alcohol and Drug Abuse Directors (NASADAD)
Overview of State Legislation to Increase Access to Treatment for Opioid Overdose:

American Association for the Treatment of Opioid Dependence (AATOD)
Prevalence of Prescription Opioid Abuse:
Overdose is common among persons who use illicit opioids such as heroin and among those who misuse medications prescribed for pain, such as oxycodone, hydrocodone, and morphine. The incidence of opioid overdose is rising nationwide. In 2014, 28,647 of drug overdose deaths involved some type of opioid, including heroin. U.S. overdose deaths involving prescription opioid analgesics increased to about 19,000 deaths in 2014, more than three times the number in 2001. To address the problem, emergency medical personnel, health care professionals, and patients increasingly are being trained in the use of the opioid antagonist naloxone hydrochloride (naloxone), which is the treatment of choice to reverse the potentially fatal respiratory depression caused by opioid overdose. (Note that naloxone has no effect on non-opioid overdoses, such as those involving cocaine, benzodiazepines, or alcohol.)

The steps outlined below are recommended to reduce the number of deaths resulting from opioid overdoses.

**STEP 1: CALL FOR HELP (DIAL 911)**

An opioid overdose needs immediate medical attention. An essential step is to get someone with medical expertise to see the patient as soon as possible, so if no emergency medical services (EMS) or other trained personnel are on the scene, dial 911 immediately. All you have to say is “Someone is not breathing.” Be sure to give a clear address and/or description of your location.

**STEP 2: CHECK FOR SIGNS OF OPIOID OVERDOSE**

Signs of overdose, which often results in death if not treated, include:

- Extreme sleepiness, inability to awaken verbally or upon sternal rub.
- Breathing problems that can range from slow to shallow breathing in a patient that cannot be awakened.
- Fingernails or lips turning blue/purple.
- Extremely small “pinpoint” pupils.
- Slow heartbeat and/or low blood pressure.

Signs of overmedication, which may progress to overdose, include:

- Unusual sleepiness, drowsiness, or difficulty staying awake despite loud verbal stimulus or vigorous sternal rub.
- Mental confusion, slurred speech, intoxicated behavior.
- Slow or shallow breathing.
- Extremely small “pinpoint” pupils, although normal size pupils do not exclude opioid overdose.
- Slow heartbeat, low blood pressure.
- Difficulty waking the person from sleep.

Because opioids depress respiratory function and breathing, one telltale sign of a person in a critical medical state is the “death rattle.” If a person emits a “death rattle”—an exhaled breath with a very distinct, labored sound coming from the throat—emergency resuscitation will be necessary immediately, as such a sound almost always is a sign that the individual is near death.
STEP 3: SUPPORT THE PERSON’S BREATHING

Ventilatory support is an important intervention and may be lifesaving on its own. Patients should be ventilated with oxygen prior to administration of naloxone.\(^5,6\) In situations where oxygen is not available, rescue breathing can be very effective in supporting respiration.\(^2\) Rescue breathing for adults involves the following steps:

- Be sure the person’s airway is clear (check that nothing inside the person’s mouth or throat is blocking the airway).
- Place one hand on the person’s chin, tilt the head back and pinch the nose closed.
- Place your mouth over the person’s mouth to make a seal and give 2 slow breaths.
- The person’s chest should rise (but not the stomach).
- Follow up with one breath every 5 seconds.

STEP 4: ADMINISTER NALOXONE

Any patient who presents with signs of opioid overdose, or when this is suspected, should be administered naloxone. Naloxone injection is approved by the FDA and has been used for decades by EMS personnel to reverse opioid overdose and resuscitate individuals who have overdosed on opioids.

Naloxone can be given by intranasal spray, intramuscular (into the muscle), subcutaneous (under the skin), or intravenous injection.\(^17-19\) The most rapid onset of action is achieved by intravenous administration, which is recommended in emergency situations.\(^17\) The dose should be titrated to the smallest effective dose that maintains spontaneous normal respiratory drive.

Opioid-naive patients may be given starting doses of up to 2 mg without concern for triggering withdrawal symptoms depending on the route of administration.\(^2,9,18\)

The intramuscular route of administration for naloxone may be suitable for patients with suspected opioid use disorder because it provides a slower onset of action and a prolonged duration of effect, which may minimize rapid onset of withdrawal symptoms.\(^2,5,10\)

DURATION OF EFFECT. The duration of effect of naloxone is 20 to 90 minutes depending on dose and route of administration\(^6\), and overdose symptoms.\(^5,17,18\) The goal of naloxone therapy should be to restore adequate spontaneous breathing, but not necessarily complete arousal.\(^5\)

More than one dose of naloxone may be needed to revive someone who is overdosing. Patients who have taken longer-acting opioids may require further intravenous bolus doses or an infusion of naloxone.\(^21\)

Comfort the person being treated, as withdrawal triggered by naloxone can feel unpleasant. As a result, some persons become agitated or combative when this happens and need help to remain calm.

SAFETY OF NALOXONE.
The safety profile of naloxone is remarkably high, especially when used in low doses and titrated to effect.\(^2,8,17,22\) When given to individuals who are not opioid-intoxicated or opioid-dependent, naloxone produces no clinical effects, even at high doses. Moreover, although rapid opioid withdrawal in tolerant patients may be unpleasant, it is not life-threatening.

Naloxone can be used in life-threatening opioid overdose circumstances in pregnant women.\(^23\)

The FDA has approved injectable naloxone, intranasal naloxone (called Narcan® Nasal Spray), and a naloxone auto-injector (called Evzio®). The currently available naloxone kits that include a syringe and naloxone ampules or vials or a prefilled naloxone

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1. [http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm391466.htm](http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm391466.htm)
syringe and a mucosal atomizer device to enable intranasal delivery require the user to be trained on how to assemble all of the materials and administer the naloxone to the victim. The Narcan Nasal Spray is a pre-filled, needle-free device that requires no assembly, which can deliver a single dose into one nostril. The Evzio auto-injector is injected into the outer thigh to deliver naloxone to the muscle (intramuscular) or under the skin (subcutaneous). Once turned on, the device provides verbal instruction to the user describing how to deliver the medication, similar to automated defibrillators. Both Narcan Nasal Spray and Evzio are packaged in a carton containing two doses, to allow for repeat dosing if needed.

**STEP 5: MONITOR THE PERSON’S RESPONSE**

All patients should be monitored for recurrence of signs and symptoms of opioid toxicity for at least 4 hours from the last dose of naloxone or discontinuation of the naloxone infusion. Patients who have overdoses on long-acting opioids should have more prolonged monitoring.2,10

Most patients respond by returning to spontaneous breathing. The response generally occurs within 3 to 5 minutes of naloxone administration. (Continue rescue breathing while waiting for the naloxone to take effect.)2,5,10

Naloxone will continue to work for 30 to 90 minutes, but after that time, overdose symptoms may return.17,18 Therefore, it is essential to get the person to an emergency department or other source of medical care as quickly as possible, even if he or she revives after the initial dose of naloxone and seems to feel better.

**SIGNS OF OPIOID WITHDRAWAL.** The signs and symptoms of opioid withdrawal in an individual who is physically dependent on opioids may include, but are not limited to, the following: body aches, diarrhea, tachycardia, fever, runny nose, sneezing, piloerection, sweating, yawning, nausea or vomiting, nervousness, restlessness or irritability, shivering or trembling, abdominal cramps, weakness, and increased blood pressure. In the neonate, opioid withdrawal may also include convulsions, excessive crying, and hyperactive reflexes.17

**NALOXONE NON-RESPONDERS.** If a patient does not respond to naloxone, an alternative explanation for the clinical symptoms should be considered. The most likely explanation is that the person is not overdosing on an opioid but rather some other substance or may even be experiencing a non-overdose medical emergency. A possible explanation to consider is that the individual has overdosed on buprenorphine, a long-acting opioid partial agonist. Because buprenorphine has a higher affinity for the opioid receptors than do other opioids, naloxone may not be effective at reversing the effects of buprenorphine-induced opioid overdose.16

In all cases, support of ventilation, oxygenation, and blood pressure should be sufficient to prevent the complications of opioid overdose and should be given priority if the response to naloxone is not prompt.
SUMMARY
Do’s and Don’ts in Responding to Opioid Overdose

- DO support the person’s breathing by administering oxygen or performing rescue breathing.
- DO administer naloxone.
- DO put the person in the “recovery position” on the side, if he or she is breathing independently.
- DO stay with the person and keep him/her warm.
- DON’T slap or try to forcefully stimulate the person—it will only cause further injury. If you are unable to wake the person by shouting, rubbing your knuckles on the sternum (center of the chest or rib cage), or light pinching, he or she may be unconscious.
- DON’T put the person into a cold bath or shower. This increases the risk of falling, drowning, or going into shock.
- DON’T inject the person with any substance (saltwater, milk, “speed,” heroin, etc.). The only safe and appropriate treatment is naloxone.
- DON’T try to make the person vomit drugs that he or she may have swallowed. Choking or inhaling vomit into the lungs can cause a fatal injury.

NOTE: All naloxone products have an expiration date, so it is important to check the expiration date and obtain replacement naloxone as needed.
Opioid overdose is a major public health problem. In 2014, 28,647 of drug overdose deaths involved some type of opioid, including heroin.\textsuperscript{14,19} Overdose involves both men and women of all ages, ethnicities, and demographic and economic characteristics, and involves both illicit opioids such as heroin and, increasingly, prescription opioid analgesics such as oxycodone, hydrocodone, fentanyl, and methadone.\textsuperscript{4}

Physicians and other health care providers can make a major contribution toward reducing the toll of opioid overdose through the care they take in prescribing opioid analgesics and monitoring patients’ response, as well as through their acuity in identifying and effectively addressing opioid overdose. Federally funded Continuing Medical Education (CME) courses are available at no charge at http://www.OpioidPrescribing.com (a series of courses funded by the Substance Abuse and Mental Health Services Administration [SAMHSA])\textsuperscript{2}.

**OPIOID OVERDOSE**

The risk of opioid overdose can be minimized through adherence to the following clinical practices, which are supported by a considerable body of evidence. \textsuperscript{2,10,22,24}

**ASSESS THE PATIENT.** Obtaining a history of the patient’s past use of drugs (either illicit drugs or prescribed medications with misuse potential) is an essential first step in appropriate prescribing. Such a history should include very specific questions. For example:

- “In the past 6 months, have you taken any medications to help you calm down, keep from getting nervous or upset, raise your spirits, make you feel better, and the like?”
- “Have you been taking any medications to help you sleep? Have you been using alcohol for this purpose?”
- “Have you ever taken a medication to help you with a drug or alcohol problem?”
- “Have you ever taken a medication for a nervous stomach?”
- “Have you taken a medication to give you more energy or to cut down on your appetite?”
- “Have you ever been treated for a possible or suspected opioid overdose?”

The patient history should also include questions about use of alcohol and over-the-counter (OTC) preparations. For example, the ingredients in many common cold preparations include alcohol and other central nervous system (CNS) depressants, so these products should not be used in combination with opioid analgesics.

Positive answers to any of these questions warrant further investigation.

**TAKE SPECIAL PRECAUTIONS WITH NEW PATIENTS.** Many experts recommend that additional precautions be taken in prescribing opioid analgesics for new patients.\textsuperscript{22} These might involve the following:

1. **Assessment:** In addition to doing the patient history and examination, the physician should determine who has been caring for the patient in the past, what medications have been prescribed and for what indications, what substances (including alcohol, illicit drugs, and OTC products) the patient has reported using, and when and what amount was last used and by what route. Medical records should be obtained (with the patient’s consent).

2. **Emergencies:** In emergency situations, the physician should prescribe the smallest possible quantity, typically not exceeding 3 days’ supply, and arrange for a

\textsuperscript{2} For additional educational materials for extended-release and long-acting opioid analgesics, see http://www.cdc.gov/druginfo/prescribing.html and the FDA Blueprint for Prescriber Education for Extended-Release and Long-Acting Opioid Analgesics.
return visit the next day. In addition, consider prescribing naloxone to help mitigate risk associated with these emergent situations. At a minimum, the patient's identity should be verified by asking for proper identification.

3. **Non-emergencies:** In non-emergency situations, only enough of an opioid analgesic should be prescribed to meet the patient's needs until the next appointment. The patient should be directed to return to the office for additional prescriptions, as telephone orders do not allow the physician to reassess the patient's continued need for the medication.

**STATE PRESCRIPTION DRUG MONITORING PROGRAMS.** State Prescription Drug Monitoring Programs (PDMPs) have emerged as a key strategy for addressing the misuse of prescription opioids and thus preventing opioid overdoses and deaths. Specifically, prescribers can check their state’s PDMP database to determine whether a patient is filling the prescriptions provided and/or obtaining prescriptions for the same or similar drugs from multiple physicians.

While nearly all states now have operational PDMPs, the programs differ from state to state in terms of the exact information collected, how soon that information is available to physicians, and who may access the data. Therefore, information about the program in a particular state is best obtained directly from the PDMP or from the state board of medicine or pharmacy.

**SELECT AN APPROPRIATE MEDICATION.** Rational drug therapy demands that the efficacy and safety of all potentially useful medications be reviewed for their relevance to the patient’s disease or disorder.22

When an appropriate medication has been selected, the dose, schedule, and formulation should be determined. These choices often are just as important in optimizing pharmacotherapy as the choice of medication itself. Decisions involve (1) dose (based not only on age and weight of the patient, but also on severity of the disorder, possible loading-dose requirement, and the presence of potentially interacting drugs); (2) timing of administration (such as a bedtime dose to minimize problems associated with sedative or respiratory depressant effects); (3) route of administration (chosen to improve compliance/adherence as well as to attain peak drug concentrations rapidly); and (4) formulation (e.g., selecting a patch in preference to a tablet, or an extended-release product rather than an immediate-release formulation).

Even when sound medical indications have been established, physicians typically consider three additional factors before deciding to prescribe an opioid analgesic22:

1. **The severity of symptoms,** in terms of the patient's ability to accommodate them. Relief of symptoms is a legitimate goal of medical practice, but using opioid analgesics requires caution.

2. **The patient's reliability in taking medications,** noted through observation and careful history-taking. The physician should assess a patient's history of and risk factors for substance use disorders before prescribing any psychoactive drug and weigh the benefits against the risks. The likely development of physical dependence in patients on long-term opioid therapy should be monitored through periodic checkups.

3. **The dependence-producing potential of the medication.** The physician should consider whether a product with less potential for misuse, or even a non-drug therapy, would provide equivalent benefits. Patients should be warned about possible adverse effects caused by interactions between opioids and other medications or substances, including alcohol. At the time a drug is prescribed, patients should be informed that it is illegal to sell, give away, or otherwise share their medication with others,
including family members. The patient’s obligation extends to keeping the medication in a locked cabinet or otherwise restricting access to it and to safely disposing of any unused supply (visit http://www.fda.gov/ForConsumers/Consumer-Updates/ucm101653.htm for advice from the United States Food and Drug Administration (FDA) on how to safely dispose of unused medications).

EDUCATE THE PATIENT AND OBTAIN INFORMED CONSENT. Obtaining informed consent involves informing the patient about the risks and benefits of the proposed therapy and of the ethical and legal obligations such therapy imposes on both physician and patient. Such informed consent can serve multiple purposes: (1) it provides the patient with information about the risks and benefits of opioid therapy; (2) it fosters adherence to the treatment plan; it limits the potential for inadvertent drug misuse; and (4) it improves the efficacy of the treatment program.

Patient education and informed consent should specifically address the potential for physical dependence and cognitive impairment as side effects of opioid analgesics.

Other issues that should be addressed in the informed consent or treatment agreement include the following:

- The agreement instructs the patient to stop taking all other pain medications, unless explicitly told to continue by the physician. Such a statement reinforces the need to adhere to a single treatment regimen.
- The patient agrees to obtain the prescribed medication from only one physician and, if possible, from one designated pharmacy.
- The patient agrees to take the medication only as prescribed (for some patients, it may be possible to offer latitude to adjust the dose as symptoms dictate).
- The agreement makes it clear that the patient is responsible for safeguarding the written prescription and the supply of medications, and arranging refills during regular office hours. This responsibility includes planning ahead so as not to run out of medication during weekends or vacation.
- The agreement specifies the consequences for failing to adhere to the treatment plan, which may include discontinuation of opioid therapy if the patient’s actions compromise his or her safety.

Both patient and physician should sign the informed consent agreement, and a copy should be placed in the patient’s medical record. It also is helpful to give the patient a copy of the agreement to carry with him or her, to document the source and reason for any controlled drugs in his or her possession.

Some physicians provide a laminated card that identifies the individual as a patient of their practice. This is helpful to other physicians who may see the patient and in the event the patient is seen in an emergency department.

EXECUTE THE PRESCRIPTION ORDER. Careful execution of the prescription order can prevent manipulation by the patient or others intent on obtaining opioids for non-medical purposes. For example, federal law requires that prescription orders for controlled substances be signed and dated on the day they are issued. Also under federal law, every prescription or der must include at least the following information:

- Name and address of the patient
- Name, address, and DEA registration number of the physician

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3 An important source of patient information is the FDA package insert. The medication guides that accompany all extended-release or long-acting as well as oral solution opioids should be reviewed as part of the FDA Risk Evaluation and Management Strategy (REMS). For links to medication guides, please visit http://www.fda.gov/Drugs/DevelopmentApprovalProcess/DrugSafetyandAvailability/ucm126133.htm

For a general patient counseling document on opioid analgesics, available in English or Spanish, please visit http://www.fda.gov/Drugs/DrugSafety/ucm126133.htm.
INFORMATION FOR PRESCRIBERS

- Signature of the physician
- Name and quantity of the drug prescribed
- Directions for use
- Refill information
- Effective date if other than the date on which the prescription was written

Many states impose additional requirements, which the physician can determine by consulting the state medical licensing board. In addition, there are special federal requirements for drugs in different schedules of the federal Controlled Substances Act (CSA), particularly those in Schedule II, where many opioid analgesics are classified.

Blank prescription pads as well as information such as the names of physicians who recently retired, left the state, or died all can be used to forge prescriptions. Therefore, it is a sound practice to store blank prescriptions in a secure place rather than leaving them in examining rooms.

**NOTE:** The physician should immediately report the theft or loss of prescription blanks to the nearest field office of the federal Drug Enforcement Administration and to the state board of medicine or pharmacy.

**MONITOR THE PATIENT'S RESPONSE TO TREATMENT.** Proper prescription practices do not end when the patient receives a prescription. Plans to monitor for drug efficacy and safety, compliance, and potential development of tolerance must be documented and clearly communicated to the patient.²

Subjective symptoms are important in monitoring, as are objective clinical signs (such as body weight, pulse rate, temperature, blood pressure, and levels of drug metabolites in the bloodstream). These can serve as early signs of therapeutic failure or unacceptable adverse drug reactions that require modification of the treatment plan.

Asking the patient to keep a log of signs and symptoms gives him or her a sense of participation in the treatment program and facilitates the physician’s review of therapeutic progress and adverse events.

Simply recognizing the potential for non-adherence, especially during prolonged treatment, is a significant step toward improving medication use²⁶. Steps such as simplifying the drug regimen and offering patient education also improve adherence, as do phone calls to patients, home visits by nursing personnel, convenient packaging of medication, and periodic urine testing for the prescribed opioid as well as any other respiratory depressant.

Finally, the physician should convey to the patient through attitude and manner that any medication, no matter how helpful, is only part of an overall treatment plan.

When the physician is concerned about the behavior or clinical progress (or lack thereof) of a patient being treated with an opioid analgesic, it usually is advisable to seek a consultation with an expert in the disorder for which the patient is being treated and an expert in addiction. Physicians place themselves at risk if they continue to prescribe opioids in the absence of such consultations.²²

**CONSIDER PRESCRIBING NALOXONE ALONG WITH THE PATIENT'S INITIAL OPIOID PRESCRIPTION.** Naloxone competitively binds opioid receptors and is the antidote to acute opioid toxicity. With proper education, patients on long-term opioid therapy and others at risk for overdose may benefit from being prescribed (1) a naloxone kit containing naloxone, syringes, and needles; (2) Narcan® Nasal Spray, which delivers a single dose of naloxone into one nostril via a pre-filled intranasal spray; or (3)
Evzio®, which delivers a single dose of naloxone to the outer thigh via a hand-held auto-injector.

Patients who are candidates for such kits include those who are:
- Taking high doses of opioids for long-term management of chronic malignant or non-malignant pain.
- Receiving rotating medication regimens (and thus are at risk for incomplete cross-tolerance).
- Discharged from emergency medical care following opioid intoxication or poisoning.
- At high risk for overdose because of a legitimate medical need for analgesia, coupled with a suspected or confirmed history of substance use disorder or non-medical use of prescription or illicit opioids.
- On certain opioid preparations that may increase risk for opioid overdose such as extended release/long-acting preparations.
- Completing mandatory opioid detoxification or abstinence programs.
- Recently released from incarceration and with a history of opioid use disorder (and presumably with reduced opioid tolerance and high risk of relapse to opioid use).

It may also be advisable to suggest that the at-risk patient create an “overdose plan” to share with friends, partners, and/or caregivers. Such a plan would contain information on the signs of overdose and how to administer naloxone or otherwise provide emergency care (as by calling 911).

DECEIVE WHETHER AND WHEN TO END OPIOID THERAPY. Certain situations may warrant immediate cessation of prescribing. These generally occur when out-of-control behaviors indicate that continued prescribing is unsafe or causing harm to the patient. Examples include altering or selling prescriptions, accidental or intentional overdose, multiple episodes of running out early (due to excessive use), doctor shopping, or engaging in threatening behavior.

When such events arise, it is important to separate the patient as a person from the behaviors caused by the disease of addiction, as by demonstrating a positive regard for the person but no tolerance for the aberrant behaviors.

In such a situation, the essential steps are to (1) stop prescribing, (2) tell the patient that continued prescribing is not clinically supportable (and thus not possible), (3) urge the patient to accept a referral for assessment by an addiction specialist, (4) educate the patient about signs and symptoms of spontaneous withdrawal and urge the patient to go to the emergency department if withdrawal symptoms occur, (5) retrain on the risks and the signs of opioid overdose and on the use of naloxone and consider prescribing naloxone if deemed appropriate, and (6) assure the patient that he or she will continue to receive care for the presenting symptoms or condition.

Identification of a patient who is misusing a prescribed opioid presents a major therapeutic opportunity. The physician should have a plan for managing such a patient, typically involving work with the patient and the patient’s family, referral to an addiction expert for assessment and placement in a formal addiction treatment program, long-term participation in a 12-Step mutual-help program such as Narcotics Anonymous, and follow-up of any associated medical or psychiatric comorbidities.

Providing training on use of naloxone and prescribing a naloxone kit or FDA-approved naloxone should be considered.

In all cases, patients should be given the benefit of the physician’s concern and attention. It is important to remember that even drug-seeking patients often have

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very real medical problems that demand and deserve the same high-quality medical care offered to any patient.\textsuperscript{2,22}

**TREATING OPIOID OVERDOSE**

In the time it takes for an overdose to become fatal, it is possible to reverse the respiratory depression and other effects of opioids through respiratory support and administration of the opioid antagonist naloxone.\textsuperscript{17} Naloxone is approved by the FDA and has been used for decades to reverse overdose and resuscitate individuals who have overdosed on opioids. The routes of administration for naloxone are intravenous, intranasal, intramuscular, and subcutaneous.

The safety profile of naloxone is remarkably high, especially when used in low doses and titrated to effect.\textsuperscript{6,17} If given to individuals who are not opioid-intoxicated or opioid-dependent, naloxone produces no clinical effects, even at high doses. Moreover, while rapid opioid withdrawal in tolerant patients may be unpleasant, it is not typically life-threatening.

Naloxone should be part of an overall approach to known or suspected opioid overdose that incorporates the steps below.

**RECOGNIZE THE SIGNS OF OVERDOSE.** An opioid overdose requires rapid diagnosis. The most common signs of overdose include\textsuperscript{2}:

- Extreme sleepiness, inability to awaken verbally or upon sternal rub.
- Breathing problems that can range from slow to shallow breathing in a patient who cannot be awakened.
- Fingernails or lips turning blue/purple.
- Extremely small “pinpoint” pupils.
- Slow heartbeat and/or low blood pressure.

Signs of **OVERMEDICATION**, which may progress to overdose, include\textsuperscript{2}:

- Unusual sleepiness, drowsiness, or difficulty staying awake despite loud verbal stimulus or vigorous sternal rub.
- Mental confusion, slurred speech, intoxicated behavior.
- Slow or shallow breathing.
- Pinpoint (small) pupils; normal size pupils does not exclude opioid overdose.
- Slow heartbeat, low blood pressure.
- Difficulty waking the person from sleep.

Because opioids depress respiratory function and breathing, one telltale sign of an individual in a critical medical state is the “death rattle.” This is an exhaled breath with a very distinct, labored sound coming from the throat. It indicates that emergency resuscitation is needed immediately.\textsuperscript{26}

**SUPPORT RESPIRATION.**

Supporting respiration is the single most important intervention for opioid overdose and may be lifesaving on its own. Ideally, individuals who are experiencing opioid overdose should be ventilated with oxygen before naloxone is administered to reduce the risk of acute lung injury.\textsuperscript{2,8} In situations where oxygen is not available, rescue breathing can be very effective in supporting respiration until naloxone becomes available.\textsuperscript{27} Rescue breathing involves the following steps:

- Verify that the airway is clear.
- With one hand on the patient’s chin, tilt the head back and pinch the nose closed.
- Place your mouth over the patient’s mouth to make a seal and give 2 slow breaths (the patient’s chest should rise, but not the stomach).
- Follow up with 1 breath every 5 seconds.

**ADMINISTER NALOXONE.**

Naloxone competitively binds opioid receptors and is the antagonist of choice for the reversal of acute opioid toxicity. Any patient who presents with signs of opioid overdose, or when
this is suspected, should be administered naloxone. Naloxone can be given intranasally intramuscularly, subcutaneously, or by intravenous injection.

PREGNANT PATIENTS. Naloxone can be used in life-threatening opioid overdose circumstances in pregnant women.

MONITOR THE PATIENT’S RESPONSE. Patients should be monitored for re-emergence of signs and symptoms of opioid toxicity for at least 4 hours following the last dose of naloxone (however, patients who have overdosed on long-acting opioids require more prolonged monitoring).

Most patients respond to naloxone by returning to spontaneous breathing, with mild withdrawal symptoms. The response generally occurs within 3 to 5 minutes of naloxone administration. (Continue rescue breathing while waiting for the naloxone to take effect.)

The duration of effect of naloxone is 20 to 90 minutes depending on dose and route of administration. Patients should be observed after that time for re-emergence of overdose symptoms. The goal of naloxone therapy should be restoration of adequate spontaneous breathing, but not necessarily complete arousal.

More than one dose of naloxone may be required to revive the patient. Those who have taken longer-acting opioids or opioid partial agonists may require further doses or may require further intravenous bolus doses or an infusion of naloxone. Therefore, it is essential to get the person to an emergency department or other source of acute care as quickly as possible, even if he or she revives after the initial dose of naloxone and seems to feel better.

SIGNS OF OPIOID WITHDRAWAL. Withdrawal triggered by naloxone can feel unpleasant. As a result, some persons become agitated or combative when this happens and need help to remain calm.

The signs and symptoms of opioid withdrawal in an individual who is physically dependent on opioids may include (but are not limited to) the following: body aches, diarrhea, tachycardia, fever, runny nose, sneezing, piloerection, sweating, yawning, nausea or vomiting, nervousness, restlessness or irritability, shivering or trembling, abdominal cramps, weakness, and increased blood pressure. Withdrawal syndromes may be precipitated by as little as 0.05 to 0.2 mg intravenous naloxone in a patient taking 24 mg per day of methadone.

In neonates, opioid withdrawal may also produce convulsions, excessive crying, and hyperactive reflexes. Additionally, in neonates, opiate withdrawal may be life-threatening if not recognized and properly treated.

NALOXONE NON-RESPONDERS. If a patient does not respond to naloxone, an alternative explanation for the clinical symptoms should be considered. The most likely explanation is that the person is not over-dosing on an opioid but rather some other substance or may even be experiencing a non-overdose medical emergency. Another possible explanation to consider is that the individual has overdosed on buprenorphine, a long-acting opioid partial agonist. Because buprenorphine has a higher affinity for the opioid receptors than do other opioids, naloxone may not be effective at reversing the effects of buprenorphine-induced opioid overdose.

In all cases, support of ventilation, oxygenation, and blood pressure should be sufficient to prevent the complications of opioid overdose and should be given the highest priority if the patient’s response to naloxone is not prompt.

NOTE: All naloxone products have an expiration date. It is important to check the expiration date and obtain replacement naloxone as needed.
LEGAL AND LIABILITY CONSIDERATIONS

Health care professionals who are concerned about legal risks associated with prescribing naloxone may be reassured by the fact that prescribing naloxone to manage opioid overdose is consistent with the drug's FDA-approved indication, resulting in no increased liability so long as the prescriber adheres to general rules of professional conduct. Many state laws and regulations now permit physicians to prescribe naloxone to a third party, such as a caregiver. More information on state policies is available at http://www.prescribetoprevent.org or from individual state medical boards.

CLAIMS CODING AND BILLING

Most private health insurance plans, Medicare, and Medicaid cover naloxone for the treatment of opioid overdose, but policies vary by state. The cost of take-home naloxone should not be a prohibitive factor. Not all community pharmacies stock naloxone routinely, but they can always order it. If you are caring for a large population of patients who are likely to benefit from naloxone, you may wish to notify the pharmacy when you implement naloxone prescribing as a routine practice.

The codes for Screening, Brief Intervention, and Referral to Treatment (SBIRT) can be used to bill time for counseling a patient about how to recognize overdose and how to administer naloxone. Billing codes for SBIRT are as follows:

- Commercial Insurance: CPT 99408 (15 to 30 minutes)
- Medicare: G0396 (15 to 30 minutes)
- Medicaid: H0050 (per 15 minutes)

For counseling and instruction on the safe use of opioids, including the use of naloxone outside of the context of SBIRT services, the provider should document the time spent in medication education and use the E&M code that accurately captures the time and complexity. For example, for new patients deemed appropriate for opioid pharmacotherapy and when a substantial and appropriate amount of additional time is used to provide a separate service such as behavioral counseling (e.g., opioid overdose risk assessment and naloxone administration training), consider using modifier-25 in addition to the E&M code.

In addition, when using an evidence-based opioid use disorder or overdose risk factor assessment tool/screening instrument, CPT Code 99420 (Administration and interpretation of health risk assessment instrument) can be used for patients with commercial insurance.
RESOURCES FOR PRESCRIBERS

Additional information on prescribing opioids for chronic pain is available at the following websites:


Sponsored by the Boston University School of Medicine, with support from SAMHSA, this site presents course modules on various aspects of prescribing opioids for chronic pain. To view the list of courses and to register, go to http://www.opioidprescribing.com/overview. CME credits are available at no charge.

http://pcss-o.org or www.pcssmat.org. Sponsored by the American Academy of Addiction Psychiatry in collaboration with other specialty societies and with support from SAMHSA, the Providers’ Clinical Support System offers multiple resources related to opioid prescribing and the diagnosis and management of opioid use disorder.

http://www.er-la-opioidrems.com/lwqUI/rem/home.action. As required by the FDA under a risk management program for extended-release and long-acting opioid analgesics, this website provides physician training and patient education on the use of such medications.


http://prescribetoprevent.org. Compiled by prescribers, pharmacists, public health workers, lawyers, and researchers working on overdose prevention and naloxone access, this privately funded site provides resources to help health care providers educate their patients to reduce overdose risk and provide naloxone rescue kits to patients.
WHAT ARE OPIOIDS?

Opioids include illicit drugs such as heroin and prescription medications used to treat pain such as morphine, codeine, methadone, oxycodone, hydrocodone, fentanyl, hydromorphone, and buprenorphine.

Opioids work by binding to specific receptors in the brain, spinal cord, and gastrointestinal tract. In doing so, they minimize the body’s perception of pain. However, stimulating the opioid receptors or “reward centers” in the brain can also trigger other systems of the body, such as those responsible for regulating mood, breathing, and blood pressure.

A variety of effects can occur after a person takes opioids, ranging from pleasure to nausea and vomiting, from severe allergic reactions (anaphylaxis) to overdose, in which breathing and heartbeat slow or even stop.

Opioid overdose can occur when a patient misunderstands the directions for use, accidentally takes an extra dose, or deliberately misuses a prescription opioid or an illicit drug such as heroin.

Also at risk is the person who takes opioid medications pre-scribed for someone else, as is the individual who combines opioids-prescribed or illicit—with alcohol, certain other medications, and even some over-the-counter products that depress breathing, heart rate, and other functions of the central nervous system.

PREVENTING OVERDOSE

If you are concerned about your own use of opioids, don’t wait! Talk with the health care professional(s) who prescribed the medications for you. If you are concerned about a family member or friend, urge him or her to talk to whoever prescribed the medication.

Effective treatment of opioid use disorder can reduce the risk of overdose and help a person who is misusing or addicted to opioid medications attain a healthier life. An evidence-based practice for treating opioid addiction is the use of United States Food and Drug Administration (FDA)-approved medications, along with counseling and other supportive services. These services are available at SAMHSA-certified and DEA-registered opioid treatment programs (OTPs). In addition, physicians who are trained to provide treatment for opioid addiction in office-based and other settings with medications such as buprenorphine/naloxone and naltrexone may be available in your community.

IF YOU SUSPECT AN OVERDOSE

An opioid overdose requires immediate medical attention. An essential first step is to get help from someone with medical expertise as soon as possible. Call 911 immediately if you or someone you know exhibits any of the symptoms listed below. All you have to say: “Some-one is unresponsive and not breathing.” Give a clear address and/or description of your location.

Signs of OVERDOSE, which is a life-threatening emergency, include the following:

- The face is extremely pale and/or clammy to the touch.
- The body is limp.
- Fingernails or lips have a blue or purple cast.
- The person is vomiting or making gurgling noises.
- He or she cannot be awakened from sleep or is unable to speak.
- Breathing is very slow or stopped.
- The heartbeat is very slow or stopped.

Signs of OVermedicAtion, which may progress to overdose, include:

- Unusual sleepiness or drowsiness.
- Mental confusion, slurred speech, or intoxicated behavior.
- Slow or shallow breathing.
- Extremely small “pinpoint” pupils.
- Slow heartbeat or low blood pressure.
- Difficulty in being awakened from sleep.
WHAT IS NALOXONE?

Naloxone is an antidote to opioid overdose. It is an opioid antagonist that is used to reverse the effects of opioids. Naloxone works by blocking opiate receptor sites. It is not effective in treating overdoses of benzodiazepines (such as Valium®, Xanax®, or Klonopin®), barbiturates (Seconal® or Fiorinal®), clonidine, Elavil® GHB, or ketamine. It is also not effective in treating overdoses of stimulants such as cocaine and amphetamines (including methamphetamine and Ecstasy). However, if opioids are taken in combination with other sedatives or stimulants, naloxone may be helpful.

IMPORTANT SAFETY INFORMATION. Naloxone may cause dizziness, drowsiness, or fainting. These effects may be worse if it is taken with alcohol or certain medicines. For more information, see http://www.fda.gov/drugs/drugsafety/postmarketdrugsafetyinformationforpatientsandproviders/ucm472923.htm.

REPORT ANY SIDE EFFECTS

Get emergency medical help if you or someone has any signs of an allergic reaction after taking naloxone, such as hives, difficulty breathing, or swelling of your face, lips, tongue, or throat. Call your doctor or 911 at once if you have a serious side effect such as:

- Chest pain, or fast or irregular heartbeats.
- Dry cough, wheezing, or feeling short of breath.
- Sweating, severe nausea, or vomiting.
- Severe headache, agitation, anxiety, confusion, or ringing in your ears.
- Seizures (convulsions).
- Feeling that you might pass out.
- Slow heart rate, weak pulse, fainting, or slowed breathing.

If you are being treated for opioid use disorder (either an illicit drug like heroin or a medication prescribed for pain), you may experience the following symptoms of opioid withdrawal after taking naloxone:

- Feeling nervous, restless, or irritable.
- Body aches.
- Dizziness or weakness.
- Diarrhea, stomach pain, or mild nausea.
- Fever, chills, or goosebumps.
- Sneezing or runny nose in the absence of a cold.

This is not a complete list of side effects, and others may occur. Talk to your doctor about side effects and how to deal with them.

STORE NALOXONE IN A SAFE PLACE

Naloxone is usually handled and stored by a health care provider. If you are using naloxone at home, store it in a locked cabinet or other space that is out of the reach of children or pets.

SUMMARY: HOW TO AVOID OPIOID OVERDOSE

1. Take medicine only if it has been prescribed to you by your doctor.
2. Do not take more medicine or take it more often than instructed.
3. Call a doctor if your pain gets worse.
4. Never mix pain medicines with alcohol, sleeping pills, or any illicit substance.
5. Store your medicine in a safe place where children or pets cannot reach it.
6. Learn the signs of overdose and how to use naloxone to keep it from becoming fatal.
7. Teach your family and friends how to respond to an overdose.
8. Dispose of unused medication properly.

READ MORE AT http://www.fda.gov/drugs/drugsafety/postmarketdrugsafetyinformationforpatientsandproviders/ucm472923.htm.
RESOURCES FOR OVERDOSE SURVIVORS AND FAMILY MEMBERS

Survivors of opioid overdose have experienced a life-changing and traumatic event. They have had to deal with the emotional consequences of overdosing, which can involve embarrassment, guilt, anger, and gratitude, all accompanied by the discomfort of opioid withdrawal. Most need the support of family and friends to take the next steps toward recovery.

While many factors can contribute to opioid overdose, it is almost always an accident. Moreover, the underlying problem that led to opioid use—most often pain or substance use disorder—still exists and continues to require attention.²

Moreover, the individual who has experienced an overdose is not the only one who has endured a traumatic event. Family members often feel judged or inadequate because they could not prevent the overdose. It is important for family members to work together to help the overdose survivor obtain the help that he or she needs.

FINDING A NETWORK OF SUPPORT

As with any disease, it is not a sign of weakness to admit that a person or a family cannot deal with the trauma of overdose without help. It takes real courage to reach out to others for support and to connect with members of the community to get help.

Health care providers, including those who specialize in treating substance use disorders, can provide structured, therapeutic support and feedback.

If the survivor’s underlying problem is pain, referral to a pain specialist may be in order. If it is addiction, the patient should be referred to an addiction specialist for assessment and treatment, either by a physician specializing in the treatment of opioid addiction, in a residential treatment program, or in a federally certified Opioid Treatment Program (OTP). In each case, counseling can help the individual manage his or her problems in a healthier way. Choosing the path to recovery can be a dynamic and challenging process, but there are ways to help.

In addition to receiving support from family and friends, overdose survivors can access a variety of community-based organizations and institutions, such as:

- Health care and behavioral health providers.
- Peer-to-peer recovery support groups such as Narcotics Anonymous.
- Faith-based organizations.
- Educational institutions.
- Neighborhood groups.
- Government agencies.
- Family and community support programs.
RESOURCES
Information on opioid overdose and helpful advice for overdose survivors and their families can be found at:

Substance Abuse and Mental Health Services Administration (SAMHSA)
- National Helpline 1-800-662-HELP (4357) or 1-800-487-4889 (TDD—for hearing impaired)
- Behavioral Health Treatment Services Locator: https://findtreatment.samhsa.gov to search by address, city, or zip code
- State Substance Abuse Agencies: https://findtreatment.samhsa.gov/TreatmentLocator/faces/about.jspx

Centers for Disease Control and Prevention (CDC):
http://www.cdc.gov/drugoverdose/epidemic

National Institutes of Health (NIH), National Center for Biotechnical Information:

Partnership for Drug-Free Kids:

Project Lazarus:
http://www.projectlazarus.org

Harm Reduction Coalition:
http://www.harmreduction.org

Overdose Prevention Alliance:
http://www.overdosepreventionalliance.org

Toward the Heart:
http://www.towardtheheart.com/naloxne


29 SAMHSA’s National Helpline 1-800-662-HELP (4357) or 1-800-487-4889 (TDD for hearing impaired).

30 Behavioral Health Treatment Services Locator: [https://findtreatment.samhsa.gov](https://findtreatment.samhsa.gov) to search by address, city, or zip code.
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PREGNANCY AND OPIOID PAIN MEDICATIONS

Women who take opioid pain medications should be aware of the possible risks during pregnancy.

WHAT ARE OPIOID PAIN MEDICATIONS?
Opioid pain medications are prescribed by doctors to treat moderate to severe pain. Common types are codeine, oxycodone, hydrocodone, and morphine.

ARE OPIOID PAIN MEDICATIONS SAFE FOR WOMEN WHO ARE PREGNANT OR PLANNING TO BECOME PREGNANT?
Possible risks to your pregnancy include2,3:

- **Neonatal Opioid Withdrawal Syndrome (NOWS):** withdrawal symptoms (irritability, seizures, vomiting, diarrhea, fever, and poor feeding) in newborns4
- **Neural tube defects:** serious problems in the development (or formation) of the fetus’ brain or spine
- **Congenital heart defects:** problems affecting how the fetus’ heart develops or how it works
- **Gastrochisis:** birth defect of developing baby’s abdomen (belly) or where the intestines stick outside of the body through a hole beside the belly button
- **Stillbirth:** the loss of a pregnancy after 20 or more weeks
- **Preterm delivery:** a birth before 37 weeks

Talk to your provider before starting or stopping any medications to help you understand all of the risks and make the safest choice for you and your pregnancy.

LEARN MORE | www.cdc.gov/drugoverdose/prescribing/guideline.html
I JUST FOUND OUT THAT I’M PREGNANT.

Should I stop taking my opioid pain medication? What are the risks?

- First, talk to your provider. Discuss all risks and benefits of continuing any medication use during pregnancy.
- Some women need to take opioid pain medication during pregnancy and quickly stopping your medication can have serious consequences.
- In some cases, avoiding or stopping medication use during pregnancy may be more harmful than taking it.

WHAT ABOUT BREASTFEEDING?

- Women without HIV who are already taking opioid pain medications regularly (and not using illicit drugs) are generally encouraged to breastfeed.
- Be sure to ask your doctor about breastfeeding if you are taking any other medications.
- During breastfeeding, avoid codeine whenever possible, and if used, ask your doctor for the lowest possible dose due to possible risk of newborn illness and death.

The information provided here applies to the use of opioid medication for pain. Opioid medications may also be used in medication assisted therapy (MAT) for treatment of substance use disorders. There are unique benefits and risks associated with MAT. To learn more about opioid medication use for substance use disorder treatment and considerations in pregnancy, visit www.samhsa.gov/medication-assisted-treatment/treatment.

For more information on opioid and other medication use in pregnancy or breastfeeding, go to:

- www.cdc.gov/treatingfortwo
- toxnet.nlm.nih.gov/newtoxnet/lactmed.htm

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OPIOIDS AND CHRONIC PAIN

Many Americans suffer from chronic pain, a major public health concern in the United States. Patients with chronic pain deserve safe and effective pain management. At the same time, our country is in the midst of a prescription opioid overdose epidemic.

- The amount of opioids prescribed and sold in the US quadrupled since 1999, but the overall amount of pain reported hasn’t changed.
- There is insufficient evidence that prescription opioids control chronic pain effectively over the long term, and there is evidence that other treatments can be effective with less harm.

UNDERSTANDING PRESCRIPTION OPIOIDS

Opioids are natural or synthetic chemicals that relieve pain by binding to receptors in your brain or body to reduce the intensity of pain signals reaching the brain. Opioid pain medications are sometimes prescribed by doctors to treat pain. Common types include:

- Hydrocodone (e.g., Vicodin)
- Oxycodone (e.g., OxyContin)
- Oxymorphone (e.g., Opana), and
- Morphine

Opioids can have serious risks including addiction and death from overdose.

PRESCRIPTION OPIOID OVERDOSE IS AN EPIDEMIC IN THE US

As many as 1 in 4 people receiving prescription opioids long term in a primary care setting struggles with addiction.

1 in 4

1 National Survey on Drug Use and Health (NSDUH), 2014

1 in 4 people receiving prescription opioids long term in a primary care setting struggles with addiction.

Americans engaged in non-medical use of opioid pain medication in the last month.¹

4.3 million

¹ National Survey on Drug Use and Health (NSDUH), 2014

LEARN MORE | www.cdc.gov/drugoverdose/prescribing/guideline.html
The Centers for Disease Control and Prevention’s (CDC) Guideline for Prescribing Opioids for Chronic Pain provides recommendations to primary care doctors about the appropriate prescribing of opioid pain medications to improve pain management and patient safety:

- It helps primary care doctors determine when to start or continue opioids for chronic pain
- It gives guidance about medication dose and duration, and on following up with patients and discontinuing medication if needed
- It helps doctors assess the risks and benefits of using opioids

Doctors and patients should talk about:

- How opioids can reduce pain during short-term use, yet there is not enough evidence that opioids control chronic pain effectively long term
- Nonopioid treatments (such as exercise, nonopioid medications, and cognitive behavioral therapy) that can be effective with less harm
- Importance of regular follow-up
- Precautions that can be taken to decrease risks including checking drug monitoring databases, conducting urine drug testing, and prescribing naloxone if needed to prevent fatal overdose
- Protecting your family and friends by storing opioids in a secure, locked location and safely disposing unused opioids

CDC developed the Guideline for Prescribing Opioids for Chronic Pain to:

- Help reduce misuse, abuse, and overdose from opioids
- Improve communication between primary care doctors and patients about the risks and benefits of opioid therapy for chronic pain

LEARN MORE | www.cdc.gov/drugoverdose/prescribing/guideline.html
PRESCRIPTION DRUG MONITORING PROGRAMS (PDMPs)

Checking the PDMP: An Important Step to Improving Opioid Prescribing Practices

WHAT IS A PDMP?

A PDMP is a statewide electronic database that tracks all controlled substance prescriptions. Authorized users can access prescription data such as medications dispensed and doses.

PDMPs improve patient safety by allowing clinicians to:

- Identify patients who are obtaining opioids from multiple providers.
- Calculate the total amount of opioids prescribed per day (in MME/day).
- Identify patients who are being prescribed other substances that may increase risk of opioids—such as benzodiazepines.

Improving the way opioids are prescribed will ensure patients have access to safer, more effective chronic pain treatment while reducing opioid misuse, abuse, and overdose. Checking your state’s PDMP is an important step in safer prescribing of these drugs.

WHEN SHOULD I CHECK THE PDMP?

State requirements vary, but CDC recommends checking at least once every 3 months and consider checking prior to every opioid prescription.

LEARN MORE | www.cdc.gov/drugoverdose/prescribing/guideline.html
WHAT SHOULD I CONSIDER WHEN PRESCRIBING OPIOIDS?

- **High Dosage**: Talk to your patient about the risks for respiratory depression and overdose. Consider offering to taper opioids as well as prescribing naloxone for patients taking 50 MME/day or more.
- **Multiple Providers**: Counsel your patient and coordinate care with their other prescribers to improve safety and discuss the need to obtain opioids from a single provider. Check the PDMP regularly and consider tapering or discontinuation of opioids if pattern continues.
- **Drug Interactions**: Whenever possible, avoid prescribing opioids and benzodiazepines concurrently. Communicate with other prescribers to prioritize patient goals and weigh risks of concurrent opioid and benzodiazepine use.

WHAT SHOULD I DO IF I FIND INFORMATION ABOUT A PATIENT IN THE PDMP THAT CONCERNS ME?

Patients should not be dismissed from care based on PDMP information. Use the opportunity to provide potentially life-saving information and interventions.

1. **Confirm that the information in the PDMP is correct.**
   Check for potential data entry errors, use of a nickname or maiden name, or possible identity theft to obtain prescriptions.

2. **Assess for possible misuse or abuse.**
   Offer or arrange evidence-based treatment (usually medication-assisted treatment with buprenorphine or methadone in combination with behavioral therapies) for patients who meet criteria for opioid use disorder. If you suspect diversion, urine drug testing can assist in determining whether opioids can be discontinued without causing withdrawal.

3. **Discuss any areas of concern with your patient and emphasize your interest in their safety.**

HOW CAN I REGISTER AND USE THE PDMP IN MY STATE?

Processes for registering and using PDMPs vary from state to state.

For information on your state's requirements, check The National Alliance for Model State Drug Laws online:

www.namsdl.org/prescription-monitoring-programs.cfm

LEARN MORE | www.cdc.gov/drugoverdose/prescribing/guideline.html
GUIDELINE FOR PRESCRIBING OPIOIDS FOR CHRONIC PAIN

IMPROVING PRACTICE THROUGH RECOMMENDATIONS

CDC’s Guideline for Prescribing Opioids for Chronic Pain is intended to improve communication between providers and patients about the risks and benefits of opioid therapy for chronic pain, improve the safety and effectiveness of pain treatment, and reduce the risks associated with long-term opioid therapy, including opioid use disorder and overdose. The Guideline is not intended for patients who are in active cancer treatment, palliative care, or end-of-life care.

DETERMINING WHEN TO INITIATE OR CONTINUE OPIOIDS FOR CHRONIC PAIN

1. Nonpharmacologic therapy and nonopioid pharmacologic therapy are preferred for chronic pain. Clinicians should consider opioid therapy only if expected benefits for both pain and function are anticipated to outweigh risks to the patient. If opioids are used, they should be combined with nonpharmacologic therapy and nonopioid pharmacologic therapy, as appropriate.

2. Before starting opioid therapy for chronic pain, clinicians should establish treatment goals with all patients, including realistic goals for pain and function, and should consider how opioid therapy will be discontinued if benefits do not outweigh risks. Clinicians should continue opioid therapy only if there is clinically meaningful improvement in pain and function that outweighs risks to patient safety.

3. Before starting and periodically during opioid therapy, clinicians should discuss with patients known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy.

CLINICAL REMINDERS

- Opioids are not first-line or routine therapy for chronic pain
- Establish and measure goals for pain and function
- Discuss benefits and risks and availability of nonopioid therapies with patient
OPIOID SELECTION, DOSAGE, DURATION, FOLLOW-UP, AND DISCONTINUATION

When starting opioid therapy for chronic pain, clinicians should prescribe immediate-release opioids instead of extended-release/long-acting (ER/LA) opioids. When opioids are started, clinicians should prescribe the lowest effective dosage. Clinicians should use caution when prescribing opioids at any dosage, should carefully reassess evidence of individual benefits and risks when considering increasing dosage to ≥ 50 morphine milligram equivalents (MME)/day, and should avoid increasing dosage to ≥ 90 MME/day or carefully justify a decision to titrate dosage to ≥ 90 MME/day.

Long-term opioid use often begins with treatment of acute pain. When opioids are used for acute pain, clinicians should prescribe the lowest effective dose of immediate-release opioids and should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids. Three days or less will often be sufficient; more than seven days will rarely be needed.

Clinicians should evaluate benefits and harms with patients within 1 to 4 weeks of starting opioid therapy for chronic pain or of dose escalation. Clinicians should evaluate benefits and harms of continued therapy with patients every 3 months or more frequently. If benefits do not outweigh harms of continued opioid therapy, clinicians should optimize other therapies and work with patients to taper opioids to lower dosages or to taper and discontinue opioids.

CLINICAL REMINDERS

- Use immediate-release opioids when starting
- Start low and go slow
- When opioids are needed for acute pain, prescribe no more than needed
- Do not prescribe ER/LA opioids for acute pain
- Follow-up and re-evaluate risk of harm; reduce dose or taper and discontinue if needed

ASSESSING RISK AND ADDRESSING HARMS OF OPIOID USE

Before starting and periodically during continuation of opioid therapy, clinicians should evaluate risk factors for opioid-related harms. Clinicians should incorporate into the management plan strategies to mitigate risk, including considering offering naloxone when factors that increase risk for opioid overdose, such as history of overdose, history of substance use disorder, higher opioid dosages (≥ 50 MME/day), or concurrent benzodiazepine use, are present.

Clinicians should review the patient’s history of controlled substance prescriptions using state prescription drug monitoring program (PDMP) data to determine whether the patient is receiving opioid dosages or dangerous combinations that put him or her at high risk for overdose. Clinicians should review PDMP data when starting opioid therapy for chronic pain and periodically during opioid therapy for chronic pain, ranging from every prescription to every 3 months.

When prescribing opioids for chronic pain, clinicians should use urine drug testing before starting opioid therapy and consider urine drug testing at least annually to assess for prescribed medications as well as other controlled prescription drugs and illicit drugs.

Clinicians should avoid prescribing opioid pain medication and benzodiazepines concurrently whenever possible.

Clinicians should offer or arrange evidence-based treatment (usually medication-assisted treatment with buprenorphine or methadone in combination with behavioral therapies) for patients with opioid use disorder.

CLINICAL REMINDERS

- Evaluate risk factors for opioid-related harms
- Check PDMP for high dosages and prescriptions from other providers
- Use urine drug testing to identify prescribed substances and undisclosed use
- Avoid concurrent benzodiazepine and opioid prescribing
- Arrange treatment for opioid use disorder if needed

LEARN MORE | www.cdc.gov/drugoverdose/prescribing/guideline.html
The United States is in the midst of an epidemic of prescription opioid overdoses. The amount of opioids prescribed and sold in the US quadrupled since 1999, but the overall amount of pain reported by Americans hasn’t changed. This epidemic is devastating American lives, families, and communities.

More than 40 people die every day from overdoses involving prescription opioids. Since 1999, there have been over 165,000 deaths from overdose related to prescription opioids. 4.3 million Americans engaged in non-medical use of prescription opioids in the last month.

Many Americans suffer from chronic pain. These patients deserve safe and effective pain management. Prescription opioids can help manage some types of pain in the short term. However, we don’t have enough information about the benefits of opioids long term, and we know that there are serious risks of opioid use disorder and overdose—particularly with high dosages and long-term use.

1 Includes overdose deaths related to methadone but does not include overdose deaths related to other synthetic prescription opioids such as fentanyl.

2 National Survey on Drug Use and Health (NSDUH), 2014
NEW CDC GUIDELINE WILL HELP IMPROVE CARE, REDUCE RISKS

The Centers for Disease Control and Prevention (CDC) developed the CDC Guideline for Prescribing Opioids for Chronic Pain (Guideline) for primary care clinicians treating adult patients for chronic pain in outpatient settings. The Guideline is not intended for patients who are in active cancer treatment, palliative care, or end-of-life care. The Guideline was developed to:

- Improve communication between clinicians and patients about the benefits and risks of using prescription opioids for chronic pain
- Provide safer, more effective care for patients with chronic pain
- Help reduce opioid use disorder and overdose

The Guideline provides recommendations to primary care clinicians about the appropriate prescribing of opioids to improve pain management and patient safety. It will:

- Help clinicians determine if and when to start prescription opioids for chronic pain
- Give guidance about medication selection, dose, and duration, and when and how to reassess progress, and discontinue medication if needed
- Help clinicians and patients—together—assess the benefits and risks of prescription opioid use

Among the 12 recommendations in the Guideline, there are three principles that are especially important to improving patient care and safety:

- Nonopiod therapy is preferred for chronic pain outside of active cancer, palliative, and end-of-life care.
- When opioids are used, the lowest possible effective dosage should be prescribed to reduce risks of opioid use disorder and overdose.
- Clinicians should always exercise caution when prescribing opioids and monitor all patients closely.

To develop the Guideline, CDC followed a transparent and rigorous scientific process using the best available scientific evidence, consulting with experts, and listening to comments from the public and partners.

PATIENT CARE AND SAFETY IS CENTRAL TO THE GUIDELINE

Before starting opioids to treat chronic pain, patients should:

- Make the most informed decision with their doctors
- Learn about prescription opioids and know the risks
- Consider ways to manage pain that do not include opioids, such as:
  - Physical therapy
  - Exercise
  - Nonopioid medications, such as acetaminophen or ibuprofen
  - Cognitive behavioral therapy (CBT)

LEARN MORE | www.cdc.gov/drugoverdose/prescribing/guideline.html
CDC RECOMMENDATIONS

DETERMINING WHEN TO INITIATE OR CONTINUE OPIOIDS FOR CHRONIC PAIN

1. OPIOIDS ARE NOT FIRST-LINE THERAPY
   Nonpharmacologic therapy and nonopioid pharmacologic therapy are preferred for chronic pain. Clinicians should consider opioid therapy only if expected benefits for both pain and function are anticipated to outweigh risks to the patient. If opioids are used, they should be combined with nonpharmacologic therapy and nonopioid pharmacologic therapy, as appropriate.

2. ESTABLISH GOALS FOR PAIN AND FUNCTION
   Before starting opioid therapy for chronic pain, clinicians should establish treatment goals with all patients, including realistic goals for pain and function, and should consider how opioid therapy will be discontinued if benefits do not outweigh risks. Clinicians should continue opioid therapy only if there is clinically meaningful improvement in pain and function that outweighs risks to patient safety.

3. DISCUSS RISKS AND BENEFITS
   Before starting and periodically during opioid therapy, clinicians should discuss with patients known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy.

OPIOID SELECTION, DOSAGE, DURATION, FOLLOW-UP, AND DISCONTINUATION

4. USE IMMEDIATE-RELEASE OPIOIDS WHEN STARTING
   When starting opioid therapy for chronic pain, clinicians should prescribe immediate-release opioids instead of extended-release/long-acting (ER/LA) opioids.

5. USE THE LOWEST EFFECTIVE DOSE
   When opioids are started, clinicians should prescribe the lowest effective dosage. Clinicians should use caution when prescribing opioids at any dosage, should carefully reassess evidence of individual benefits and risks when considering increasing dosage to ≥50 morphine milligram equivalents (MME)/day, and should avoid increasing dosage to ≥90 MME/day or carefully justify a decision to titrate dosage to ≥90 MME/day.

6. PRESCRIBE SHORT DURATIONS FOR ACUTE PAIN
   Long-term opioid use often begins with treatment of acute pain. When opioids are used for acute pain, clinicians should prescribe the lowest effective dose of immediate-release opioids and should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids. Three days or less will often be sufficient; more than seven days will rarely be needed.

Nonpharmacologic therapies and nonopioid medications include:
- Nonopioid medications such as acetaminophen, ibuprofen, or certain medications that are also used for depression or seizures
- Physical treatments (eg, exercise therapy, weight loss)
- Behavioral treatment (eg, CBT)
- Intervenational treatments (eg, injections)

Immediate-release opioids: faster acting medication with a shorter duration of pain-relieving action
Extended release opioids: slower acting medication with a longer duration of pain-relieving action

Morphine milligram equivalents (MME)/day: the amount of morphine an opioid dose is equal to when prescribed, often used as a gauge of the abuse and overdose potential of the amount of opioid that is being given at a particular time

LEARN MORE | www.cdc.gov/drugoverdose/prescribing/guideline.html
EVALUATE BENEFITS AND HARMS FREQUENTLY

Clinicians should evaluate benefits and harms with patients within 1 to 4 weeks of starting opioid therapy for chronic pain or of dose escalation. Clinicians should evaluate benefits and harms of continued therapy with patients every 3 months or more frequently. If benefits do not outweigh harms of continued opioid therapy, clinicians should optimize other therapies and work with patients to taper opioids to lower dosages or to taper and discontinue opioids.

ASSESSING RISK AND ADDRESSING HARMs

USE STRATEGIES TO MITIGATE RISK

Before starting and periodically during continuation of opioid therapy, clinicians should evaluate risk factors for opioid-related harms. Clinicians should incorporate into the management plan strategies to mitigate risk, including considering offering naloxone when factors that increase risk for opioid overdose, such as history of overdose, history of substance use disorder, higher opioid dosages (≥50 MME/day), or concurrent benzodiazepine use, are present.

REVIEW PDMP DATA

Clinicians should review the patient’s history of controlled substance prescriptions using state prescription drug monitoring program (PDMP) data to determine whether the patient is receiving opioid dosages or dangerous combinations that put him or her at high risk for overdose. Clinicians should review PDMP data when starting opioid therapy for chronic pain and periodically during opioid therapy for chronic pain, ranging from every prescription to every 3 months.

USE URINE DRUG TESTING

When prescribing opioids for chronic pain, clinicians should use urine drug testing before starting opioid therapy and consider urine drug testing at least annually to assess for prescribed medications as well as other controlled prescription drugs and illicit drugs.

AVOID CONCURRENT OPIOID AND BENZODIAZEPINE PRESCRIBING

Clinicians should avoid prescribing opioid pain medication and benzodiazepines concurrently whenever possible.

OFFER TREATMENT FOR OPIOID USE DISORDER

Clinicians should offer or arrange evidence-based treatment (usually medication-assisted treatment with buprenorphine or methadone in combination with behavioral therapies) for patients with opioid use disorder.

LEARN MORE | www.cdc.gov/drugoverdose/prescribing/guideline.html
KNOW THE RISKS

receiving prescription opioids long term in a primary care setting struggles with opioid addiction.

AS MANY AS 1 IN 4 PEOPLE

MANAGE YOUR PAIN, MINIMIZE YOUR RISK.

Chronic pain can be devastating, and effective pain management is essential to get your life back. Talk to your doctor about ways to manage your pain that don’t involve prescription opioids, such as:

- Non-opioid pain relievers, such as acetaminophen (Tylenol®), ibuprofen (Advil®), or naproxen (Aleve®)
- Physical therapy and exercise
- Cognitive behavioral therapy
- Certain antidepressants and anticonvulsants

GUIDELINE FOR PRESCRIBING OPIOIDS FOR CHRONIC PAIN

LEARN MORE | www.cdc.gov/drugoverdose/prescribing.guideline.html
WHY GUIDELINES FOR PRIMARY CARE PROVIDERS?

Primary care providers account for approximately 50% of prescription opioids dispensed.

Nearly 2 million Americans, aged 12 or older, either abused or were dependent on prescription opioids in 2014.

- An estimated 11% of adults experience daily pain
- Millions of Americans are treated with prescription opioids for chronic pain
- Primary care providers are concerned about patient addiction and report insufficient training in prescribing opioids

**MYTH vs TRUTH**

1. **Opioids are effective long-term treatments for chronic pain**
   - While evidence supports short-term effectiveness of opioids, there is insufficient evidence that opioids control chronic pain effectively over the long term, and there is evidence that other treatments can be effective with less harm.

2. **There is no unsafe dose of opioids as long as opioids are titrated slowly**
   - Daily opioid dosages close to or greater than 90 MME/day are associated with significant risks, and lower dosages are safer.

3. **The risk of addiction is minimal**
   - Up to one quarter of patients receiving prescription opioids long term in a primary care setting struggle with addiction. Certain risk factors increase susceptibility to opioid-associated harms: history of overdose, history of substance use disorder, higher opioid dosages, or concurrent benzodiazepine use.

WHAT CAN PROVIDERS DO?

First, **do no harm**. Long-term opioid use has uncertain benefits but known, serious risks. CDC’s *Guideline for Prescribing Opioids for Chronic Pain* will support informed clinical decision making, improved communication between patients and providers, and appropriate prescribing.

**PRACTICES AND ACTIONS**

- **USE NONOPIOID TREATMENT**
  - Opioids are not first-line or routine therapy for chronic pain (Recommendation #1)
    - In a systematic review, opioids did not differ from nonopioid medication in pain reduction, and nonopioid medications were better tolerated, with greater improvements in physical function.

- **REVIEW PDMP**
  - Check prescription drug monitoring program data for high dosages and prescriptions from other providers (Recommendation #9)
    - A study showed patients with one or more risk factors (4 or more prescribers, 4 or more pharmacies, or dosage >100 MME/day) accounted for 55% of all overdose deaths.

- **OFFER TREATMENT FOR OPIOID USE DISORDER**
  - Offer or arrange evidence-based treatment (e.g. medication-assisted treatment and behavioral therapies) for patients with opioid use disorder (Recommendation #12)
    - A study showed patients prescribed high dosages of opioids long-term (>90 days) had 322 times the risk of opioid use disorder compared to patients not prescribed opioids.

- **START LOW AND GO SLOW**
  - When opioids are started, prescribe them at the lowest effective dose (Recommendation #5)
    - Studies show that high dosages (≥100 MME/day) are associated with 2 to 9 times the risk of overdose compared to <20 MME/day.

- **AVOID CONCURRENT PRESCRIBING**
  - Avoid prescribing opioids and benzodiazepines concurrently whenever possible (Recommendation #11)
    - One study found concurrent prescribing to be associated with a near quadrupling of risk for overdose death compared with opioid prescription alone.

LEARN MORE | www.cdc.gov/drugoverdose/prescribing/guideline.html
REDUCE OVERDOSE. PRESCRIBE RESPONSIBLY.
OVERPRESCRIBING LEADS TO MORE ABUSE AND MORE OVERDOSE DEATHS.

4x increase in sales of prescription opioids since 1999.

In that same time more than 165,000 people have died from overdose related to prescription opioids.

REFER TO THE CDC GUIDELINE FOR PRESCRIBING OPIOIDS FOR CHRONIC PAIN FOR RESPONSIBLE PRESCRIBING OF THESE DRUGS.

1 USE NONOPIOID THERAPIES
Don’t use opioids routinely for chronic pain. Use nonopioid therapies alone or in combination with opioids. Only consider opioid therapy if you expect benefits for pain and function to outweigh risks.

2 START LOW AND GO SLOW
When opioids are used, start with the lowest effective dosage and short-acting opioids instead of extended-release/long-acting opioids.

3 FOLLOW-UP
Regularly assess whether opioids are improving pain and function without causing harm. If benefits do not outweigh harms, optimize other therapies and work with patients to taper opioids.

1Recommendations do not apply to pain management in the context of active cancer treatment, palliative care, and end-of-life care.

GUIDELINE FOR PRESCRIBING OPIOIDS FOR CHRONIC PAIN

LEARN MORE | www.cdc.gov/drugoverdose/prescribing/guideline.html
**GUIDELINE FOR PRESCRIBING OPIOIDS FOR CHRONIC PAIN**

**Effective and Responsible Chronic Pain Management**

The Guideline for Prescribing Opioids for Chronic Pain was developed because CDC recognized that providers need current recommendations for prescribing opioids to improve pain management and patient safety. The guideline and corresponding clinical tools help providers and patients:

- Consider ways to manage chronic pain without prescription opioids. Some options may work better and have fewer risks and side effects.

**OTHER WAYS TO MANAGE PAIN**

- **Nonopioid pain relievers** such as Tylenol, Motrin, or Naprosyn
- **Certain medications that also have benefits for depression and seizures**
- **Physical therapy and exercise**
- **Changing thoughts and behaviors related to pain**

**PRESCRIBING GUIDELINE**

The Guideline for Prescribing Opioids for Chronic Pain was developed because CDC recognized that providers need current recommendations for prescribing opioids to improve pain management and patient safety. The guideline and corresponding clinical tools help providers and patients:

1. **ASSESS.** Assess the risks and benefits of using opioids for chronic pain.
2. **DISCUSS.** Set realistic goals for pain and function and make informed decisions about starting or continuing opioid therapy.
3. **CONSIDER.** Exercise caution and consider the safest and most effective treatments for pain.
4. **MONITOR.** Follow-up regularly to reassess progress and consider how opioid therapy will be discontinued if benefits do not outweigh risks.

To support widespread implementation of these recommendations, CDC developed user-friendly materials including:

- **CHECKLISTS**
- **FACT SHEETS**
- **CLINICAL TOOLS**
- **POSTERS**

**THE EPIDEMIC**

CDC cares about the health, safety, and well-being of patients with chronic pain. CDC is committed to ensuring that these patients get the best possible care. There is not enough science to know whether opioids control chronic pain long term, but it is clear that they have very serious risks and side effects.

The amount of opioid prescriptions dispensed has **QUADRUPLED** since 1999, but the amount of pain that Americans report remains **UNCHANGED**.

Since 1999, more than **165,000 PEOPLE HAVE DIED FROM OVERDOSE** related to prescription opioids.

Nearly **2M PEOPLE** either abused or were dependent on prescription opioids in 2014.

The amount of opioid prescriptions dispensed has **QUADRUPLED** since 1999, but the amount of pain that Americans report remains **UNCHANGED**.

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To support widespread implementation of these recommendations, CDC developed user-friendly materials including:

- **CHECKLISTS**
- **FACT SHEETS**
- **CLINICAL TOOLS**
- **POSTERS**
Follow up regularly with patients to determine whether opioids are meeting treatment goals and whether opioids can be reduced to lower dosage or discontinued.

*Recommendations focus on pain lasting longer than 3 months or past the time of normal tissue healing, outside of active cancer treatment, palliative care, and end-of-life care.
Consider tapering to a reduced opioid dosage or tapering and discontinuing opioid therapy when your patient:

- requests dosage reduction
- does not have clinically meaningful improvement in pain and function (e.g., at least 30% improvement on the 3-item PEG scale)
- is on dosages ≥ 50 MME*/day without benefit or opioids are combined with benzodiazepines
- shows signs of substance use disorder (e.g. work or family problems related to opioid use, difficulty controlling use)
- experiences overdose or other serious adverse event
- shows early warning signs for overdose risk such as confusion, sedation, or slurred speech

*morphine milligram equivalents
Tapering plans should be individualized and should minimize symptoms of opioid withdrawal while maximizing pain treatment with nonpharmacologic therapies and nonopioid medications. In general:

**Go Slow**

A decrease of 10% of the original dose per week is a reasonable starting point. Some patients who have taken opioids for a long time might find even slower tapers (e.g., 10% per month) easier.

*Discuss the increased risk for overdose if patients quickly return to a previously prescribed higher dose.*

**Consult**

Coordinate with specialists and treatment experts as needed—especially for patients at high risk of harm such as pregnant women or patients with an opioid use disorder.

*Use extra caution during pregnancy due to possible risk to the pregnant patient and to the fetus if the patient goes into withdrawal.*

**Support**

Make sure patients receive appropriate psychosocial support. If needed, work with mental health providers, arrange for treatment of opioid use disorder, and offer naloxone for overdose prevention.

*Watch for signs of anxiety, depression, and opioid use disorder during the taper and offer support or referral as needed.*

**Encourage**

Let patients know that most people have improved function without worse pain after tapering opioids. Some patients even have improved pain after a taper, even though pain might briefly get worse at first.

*Tell patients “I know you can do this” or “I’ll stick by you through this.”*
CONSIDERATIONS

1. Adjust the rate and duration of the taper according to the patient’s response.
2. Don’t reverse the taper; however, the rate may be slowed or paused while monitoring and managing withdrawal symptoms.
3. Once the smallest available dose is reached, the interval between doses can be extended and opioids may be stopped when taken less than once a day.

RESOURCES:

CDC Guideline for Prescribing Opioids for Chronic Pain
www.cdc.gov/drugoverdose/prescribing/guideline.html

Washington State Opioid Taper Plan Calculator
www.agencymeddirectors.wa.gov/Files/2015AMDGOpioidGuideline.pdf

Tapering Long-Term Opioid Therapy in Chronic Noncancer Pain
www.mayoclinicproceedings.org/article/S0025-6196(15)00303-1/fulltext
CALCULATING TOTAL DAILY DOSE OF OPIOIDS FOR SAFER DOSAGE

Higher Dosage, Higher Risk.

Higher dosages of opioids are associated with higher risk of overdose and death—even relatively low dosages (20-50 morphine milligram equivalents (MME) per day) increase risk. Higher dosages haven’t been shown to reduce pain over the long term. One randomized trial found no difference in pain or function between a more liberal opioid dose escalation strategy (with average final dosage 52 MME) and maintenance of current dosage (average final dosage 40 MME).

Dosages at or above 50 MME/day increase risks for overdose by at least 2x the risk at <20 MME/day.

WHY IS IT IMPORTANT TO CALCULATE THE TOTAL DAILY DOSAGE OF OPIOIDS?

Patients prescribed higher opioid dosages are at higher risk of overdose death.

In a national sample of Veterans Health Administration (VHA) patients with chronic pain receiving opioids from 2004–2009, patients who died of opioid overdose were prescribed an average of 98 MME/day, while other patients were prescribed an average of 48 MME/day.

Calculating the total daily dose of opioids helps identify patients who may benefit from closer monitoring, reduction or tapering of opioids, prescribing of naloxone, or other measures to reduce risk of overdose.

HOW MUCH IS 50 OR 90 MME/DAY FOR COMMONLY PRESCRIBED OPIOIDS?

50 MME/day:
- 50 mg of hydrocodone (10 tablets of hydrocodone/acetaminophen 5/300)
- 33 mg of oxycodone (~2 tablets of oxycodone sustained-release 15 mg)
- 12 mg of methadone (~3 tablets of methadone 5 mg)

90 MME/day:
- 90 mg of hydrocodone (9 tablets of hydrocodone/acetaminophen 10/325)
- 60 mg of oxycodone (~2 tablets of oxycodone sustained-release 30 mg)
- ~20 mg of methadone (~4 tablets of methadone 5 mg)

LEARN MORE | www.cdc.gov/drugoverdose/prescribing/guideline.html
HOW SHOULD THE TOTAL DAILY DOSE OF OPIOIDS BE CALCULATED?

1. **DETERMINE** the total daily amount of each opioid the patient takes.

2. **CONVERT** each to MMEs—multiply the dose for each opioid by the conversion factor. (see table)

3. **ADD** them together.

Calculating morphine milligram equivalents (MME)

<table>
<thead>
<tr>
<th>OPIOID (doses in mg/day except where noted)</th>
<th>CONVERSION FACTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Codeine</td>
<td>0.15</td>
</tr>
<tr>
<td>Fentanyl transdermal (in mcg/hr)</td>
<td>2.4</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>1</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>4</td>
</tr>
<tr>
<td>Methadone 1-20 mg/day</td>
<td>4</td>
</tr>
<tr>
<td>Methadone 21-40 mg/day</td>
<td>8</td>
</tr>
<tr>
<td>Methadone 41-60 mg/day</td>
<td>10</td>
</tr>
<tr>
<td>Methadone ≥ 61-80 mg/day</td>
<td>12</td>
</tr>
<tr>
<td>Morphine</td>
<td>1</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>1.5</td>
</tr>
<tr>
<td>Oxymorphone</td>
<td>3</td>
</tr>
</tbody>
</table>

**CAUTION:**
- Do not use the calculated dose in MMEs to determine dosage for converting one opioid to another—the new opioid should be lower to avoid unintentional overdose caused by incomplete cross-tolerance and individual differences in opioid pharmacokinetics. Consult the medication label.

**USE EXTRA CAUTION:**
- **Methadone:** the conversion factor increases at higher doses
- **Fentanyl:** dosed in mcg/hr instead of mg/day, and absorption is affected by heat and other factors

HOW SHOULD PROVIDERS USE THE TOTAL DAILY OPIOID DOSE IN CLINICAL PRACTICE?

- Use caution when prescribing opioids at any dosage and prescribe the lowest effective dose.
- Use extra precautions when increasing to ≥50 MME per day such as:
  - Monitor and assess pain and function more frequently.
  - Discuss reducing dose or tapering and discontinuing opioids if benefits do not outweigh harms.
  - Consider offering naloxone.
- Avoid or carefully justify increasing dosage to ≥90 MME/day.

LEARN MORE | www.cdc.gov/drugoverdose/prescribing/guideline.html
NONOPIOID TREATMENTS FOR CHRONIC PAIN

PRINCIPLES OF CHRONIC PAIN TREATMENT

Patients with pain should receive treatment that provides the greatest benefit. Opioids are not the first-line therapy for chronic pain outside of active cancer treatment, palliative care, and end-of-life care. Evidence suggests that nonopioid treatments, including nonopioid medications and nonpharmacological therapies can provide relief to those suffering from chronic pain, and are safer. Effective approaches to chronic pain should:

- Use nonopioid therapies to the extent possible
- Identify and address co-existing mental health conditions (e.g., depression, anxiety, PTSD)
- Focus on functional goals and improvement, engaging patients actively in their pain management
- Use disease-specific treatments when available (e.g., triptans for migraines, gabapentin/pregabalin/duloxetine for neuropathic pain)
- Use first-line medication options preferentially
- Consider interventional therapies (e.g., corticosteroid injections) in patients who fail standard non-invasive therapies
- Use multimodal approaches, including interdisciplinary rehabilitation for patients who have failed standard treatments, have severe functional deficits, or psychosocial risk factors

NONOPIOID MEDICATIONS

<table>
<thead>
<tr>
<th>MEDICATION</th>
<th>MAGNITUDE OF BENEFITS</th>
<th>HARMS</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetaminophen</td>
<td>Small</td>
<td>Hepatotoxic, particularly at higher doses</td>
<td>First-line analgesic, probably less effective than NSAIDs</td>
</tr>
<tr>
<td>NSAIDs</td>
<td>Small-moderate</td>
<td>Cardiac, GI, renal</td>
<td>First-line analgesic, COX-2 selective NSAIDs less GI toxicity</td>
</tr>
<tr>
<td>Gabapentin/pregabalin</td>
<td>Small-moderate</td>
<td>Sedation, dizziness, ataxia</td>
<td>First-line agent for neuropathic pain; pregabalin approved for fibromyalgia</td>
</tr>
<tr>
<td>Tricyclic antidepressants and serotonin/norepinephrine reuptake inhibitors</td>
<td>Small-moderate</td>
<td>TCAs have anticholinergic and cardiac toxicities; SNRIs safer and better tolerated</td>
<td>First-line for neuropathic pain; TCAs and SNRIs for fibromyalgia, TCAs for headaches</td>
</tr>
<tr>
<td>Topical agents (lidocaine, capsaicin, NSAIDs)</td>
<td>Small-moderate</td>
<td>Capsaicin initial flare/ burning, irritation of mucus membranes</td>
<td>Consider as alternative first-line, thought to be safer than systemic medications. Lidocaine for neuropathic pain, topical NSAIDs for localized osteoarthritis, topical capsaicin for musculoskeletal and neuropathic pain</td>
</tr>
</tbody>
</table>

LEARN MORE | [www.cdc.gov/drugoverdose/prescribing/guideline.html](http://www.cdc.gov/drugoverdose/prescribing/guideline.html)
RECOMMENDED TREATMENTS FOR COMMON CHRONIC PAIN CONDITIONS

Low back pain

Self-care and education in all patients; advise patients to remain active and limit bedrest

Nonpharmacological treatments: Exercise, cognitive behavioral therapy, interdisciplinary rehabilitation

Medications
- First-line: acetaminophen, non-steroidal anti-inflammatory drugs (NSAIDs)
- Second-line: Serotonin and norepinephrine reuptake inhibitors (SNRIs)/tricyclic antidepressants (TCAs)

Migraine

Preventive treatments
- Beta-blockers
- TCAs
- Antiseizure medications
- Calcium channel blockers
- Non-pharmacological treatments (Cognitive behavioral therapy, relaxation, biofeedback, exercise therapy)
- Avoid migraine triggers

Acute treatments
- Aspirin, acetaminophen, NSAIDs (may be combined with caffeine)
- Antinausea medication
- Triptans-migraine-specific

Osteoarthritis

Nonpharmacological treatments: Exercise, weight loss, patient education

Medications
- First-line: Acetaminophen, oral NSAIDs, topical NSAIDs
- Second-line: Intra-articular hyaluronic acid, capsaicin (limited number of intra-articular glucocorticoid injections if acetaminophen and NSAIDs insufficient)

Fibromyalgia

Patient education: Address diagnosis, treatment, and the patient’s role in treatment

Nonpharmacological treatments: Low-impact aerobic exercise (e.g., brisk walking, swimming, water aerobics, or bicycling), cognitive behavioral therapy, biofeedback, interdisciplinary rehabilitation

Medications
- FDA-approved: Pregabalin, duloxetine, milnacipran
- Other options: TCAs, gabapentin

Neuropathic pain

Medications: TCAs, SNRIs, gabapentin/pregabalin, topical lidocaine
PRESCRIPTION OPIOIDS: WHAT YOU NEED TO KNOW

Prescription opioids can be used to help relieve moderate-to-severe pain and are often prescribed following a surgery or injury, or for certain health conditions. These medications can be an important part of treatment but also come with serious risks. It is important to work with your health care provider to make sure you are getting the safest, most effective care.

WHAT ARE THE RISKS AND SIDE EFFECTS OF OPIOID USE?

Prescription opioids carry serious risks of addiction and overdose, especially with prolonged use. An opioid overdose, often marked by slowed breathing, can cause sudden death. The use of prescription opioids can have a number of side effects as well, even when taken as directed:

- Tolerance—meaning you might need to take more of a medication for the same pain relief
- Physical dependence—meaning you have symptoms of withdrawal when a medication is stopped
- Increased sensitivity to pain
- Constipation
- Nausea, vomiting, and dry mouth
- Sleepiness and dizziness
- Confusion
- Depression
- Low levels of testosterone that can result in lower sex drive, energy, and strength
- Itching and sweating

RISKS ARE GREATER WITH:

- History of drug misuse, substance use disorder, or overdose
- Mental health conditions (such as depression or anxiety)
- Sleep apnea
- Older age (65 years or older)
- Pregnancy

Avoid alcohol while taking prescription opioids. Also, unless specifically advised by your health care provider, medications to avoid include:

- Benzodiazepines (such as Xanax or Valium)
- Muscle relaxants (such as Soma or Flexeril)
- Hypnotics (such as Ambien or Lunesta)
- Other prescription opioids

*Findings from one study
Know Your Options

Talk to your health care provider about ways to manage your pain that don’t involve prescription opioids. Some of these options may actually work better and have fewer risks and side effects. Options may include:

- Pain relievers such as acetaminophen, ibuprofen, and naproxen
- Some medications that are also used for depression or seizures
- Physical therapy and exercise
- Cognitive behavioral therapy, a psychological, goal-directed approach, in which patients learn how to modify physical, behavioral, and emotional triggers of pain and stress.

If You Are Prescribed Opioids for Pain:

- Never take opioids in greater amounts or more often than prescribed.
- Follow up with your primary health care provider within ___ days.
  - Work together to create a plan on how to manage your pain.
  - Talk about ways to help manage your pain that don’t involve prescription opioids.
  - Talk about any and all concerns and side effects.
- Help prevent misuse and abuse.
  - Never sell or share prescription opioids.
  - Never use another person’s prescription opioids.
- Store prescription opioids in a secure place and out of reach of others (this may include visitors, children, friends, and family).
- Safely dispose of unused prescription opioids: Find your community drug take-back program or your pharmacy mail-back program, or flush them down the toilet, following guidance from the Food and Drug Administration (www.fda.gov/Drugs/ResourcesForYou).
- Visit www.cdc.gov/drugoverdose to learn about the risks of opioid abuse and overdose.
- If you believe you may be struggling with addiction, tell your health care provider and ask for guidance or call SAMHSA’s National Helpline at 1-800-662-HELP.

Be Informed!

Make sure you know the name of your medication, how much and how often to take it, and its potential risks & side effects.
ASSESSING BENEFITS AND HARMs OF OPIOID THERAPY

THE EPIDEMIC

The United States is in the midst of an epidemic of prescription opioid overdose deaths, which killed more than 14,000 people in 2014 alone.

Since 1999, sales of prescription opioids—and related overdose deaths—have quadrupled.

165,000 deaths from overdose related to prescription opioids.

GUIDANCE FOR OPIOID PRESCRIBING

The CDC Guideline for Prescribing Opioids for Chronic Pain provides up-to-date guidance on prescribing and weighing the risks and benefits of opioids.

- Before starting and periodically during opioid therapy, discuss the known risks and realistic benefits of opioids.
- Also discuss provider and patient responsibilities for managing therapy.
- Within 1-4 weeks of starting opioid therapy, and at least every 3 months, evaluate benefits and harms with the patient.

ASSESS BENEFITS OF OPIOID THERAPY

Assess your patient's pain and function regularly. A 30% improvement in pain and function is considered clinically meaningful. Discuss patient-centered goals and improvements in function (such as returning to work and recreational activities) and assess pain using validated instruments such as the 3-item (PEG) Assessment Scale:

1. What number best describes your pain on average in the past week? (from 0=no pain to 10=pain as bad as you can imagine)
2. What number best describes how, during the past week, pain has interfered with your enjoyment of life? (from 0=does not interfere to 10=completely interferes)
3. What number best describes how, during the past week, pain has interfered with your general activity? (from 0=does not interfere to 10=completely interferes)

If your patient does not have a 30% improvement in pain and function, consider reducing dose or tapering and discontinuing opioids. Continue opioids only as a careful decision by you and your patient when improvements in both pain and function outweigh the harms.

1Recommendations do not apply to pain management in the context of active cancer treatment, palliative care, and end-of-life care.
ASSESS HARMs OF OPIOID THERAPY

Long-term opioid therapy can cause harms ranging in severity from constipation and nausea to opioid use disorder and overdose death. Certain factors can increase these risks, and it is important to assess and follow-up regularly to reduce potential harms.

1. ASSESS. Evaluate for factors that could increase your patient’s risk for harm from opioid therapy such as:
   - Personal or family history of substance use disorder
   - Anxiety or depression
   - Pregnancy
   - Age 65 or older
   - COPD or other underlying respiratory conditions
   - Renal or hepatic insufficiency

2. CHECK. Consider urine drug testing for other prescription or illicit drugs and check your state’s prescription drug monitoring program (PDMP) for:
   - Possible drug interactions (such as benzodiazepines)
   - High opioid dosage (≥50 MME/day)
   - Obtaining opioids from multiple providers

3. DISCUSS. Ask your patient about concerns and determine any harms they may be experiencing such as:
   - Nausea or constipation
   - Feeling sedated or confused
   - Breathing interruptions during sleep
   - Taking or craving more opioids than prescribed or difficulty controlling use

4. OBSERVE. Look for early warning signs for overdose risk such as:
   - Confusion
   - Sedation
   - Slurred speech
   - Abnormal gait

If harms outweigh any experienced benefits, work with your patient to reduce dose, or taper and discontinue opioids and optimize nonopioid approaches to pain management.

TAPERING AND DISCONTINUING OPIOID THERAPY

Symptoms of opioid withdrawal may include drug craving, anxiety, insomnia, abdominal pain, vomiting, diarrhea, and tremors. Tapering plans should be individualized. However, in general:

1. Go Slow
   To minimize symptoms of opioid withdrawal, decrease 10% of the original dose per week. Some patients who have taken opioids for a long time might find slower tapers easier (e.g., 10% of the original dosage per month).

2. Consult
   Work with appropriate specialists as needed—especially for those at risk of harm from withdrawal such as pregnant patients and those with opioid use disorder.

3. Support
   During the taper, ensure patients receive psychosocial support for anxiety. If needed, work with mental health providers and offer or arrange for treatment of opioid use disorder.

Improving the way opioids are prescribed can ensure patients have access to safer, more effective chronic pain treatment while reducing the number of people who misuse, abuse, or overdose from these drugs.

LEARN MORE | www.cdc.gov/drugoverdose/prescribing/guideline.html
Handouts

All Handouts, posters, and fact sheets can be printed from this link:

http://www.cdc.gov/drugoverdose/prescribing/resources.html