2020 MICHIGAN MEDICAL LICENSURE PROGRAM
TARGETED SERIES OF CME FOR LICENSE RENEWAL

PROGRAM INCLUDES:

3 CREDITS
PAIN & SYMPTOM MANAGEMENT*

2 CREDITS
ETHICS*

1 CREDIT
HUMAN TRAFFICKING*

MANDATORY CME REQUIREMENTS:
• All physicians (MD/DO) must complete a minimum of three (3) credit hours in Pain and Symptom Management.
• All (MD, DO, PA) must complete training on identifying victims of Human Trafficking.
• All (MD) must complete a minimum of one (1) credit hour in Medical Ethics.

*Complete these courses to satisfy any and all of these CME requirements.
Michigan Professional License Requirements

**PHYSICIAN CME REQUIREMENTS FOR LICENSE RENEWAL**

The continuing medical education requirements apply to every physician renewing a Michigan medical license who has been licensed in the 3-year period immediately preceding the application for renewal. The requirements apply whether or not the physician is actively engaged in the practice of medicine. No one, including medical school faculty and resident physicians, is exempt from this requirement.

MD: Each medical doctor is required to complete 150 hours of continuing education in courses or programs approved by the board, of which a minimum 75 hours of the required 150 hours must be earned in courses or programs designated as Category 1 programs. For CME information access [https://www.michigan.gov/documents/lara/LARA_Medicine_CE_Brochure_5-11_376428_7.pdf](https://www.michigan.gov/documents/lara/LARA_Medicine_CE_Brochure_5-11_376428_7.pdf)

DO: Each osteopathic physician is required to complete 150 hours of continuing medical education in courses or programs approved by the board of which not less than 60 hours of the required 150 hours must be earned in osteopathic related courses or programs designated as either Category 1 (accredited) or Category 3 (residency) programs. For CME information access [https://www.michigan.gov/documents/lara/LARA_Osteopathic_CE_Brochure_4-11_376433_7.pdf](https://www.michigan.gov/documents/lara/LARA_Osteopathic_CE_Brochure_4-11_376433_7.pdf)

**MANDATORY EDUCATION REQUIREMENTS**

- Pain and Symptom Management: A minimum of three (3) credit hours of continuing medical education/training must be earned in Pain and Symptom Management for all physicians (MD/DO).
- Human Trafficking Training: All licensees (MD, DO, PA) must complete training in identifying victims of human trafficking. This is a one-time training requirement. If you did not complete the training during the last renewal cycle then the training must be complete prior to your upcoming renewal.

Existing Mandatory Requirement*:

- *Medical Ethics: Medical Doctors (MD) must still complete a minimum of one (1) hour in medical ethics.

**What This Means For You:**

All physicians must now earn three (3) credit hours of CME in pain and symptom management prior to their next renewal. Medical Doctors must still complete a minimum of one (1) hour in medical ethics as well.

Additionally, all licensees (MD, DO, PA) must complete a one-time training requirement in identifying victims of human trafficking. If not already completed, this requirement must be fulfilled prior to your upcoming renewal.

**Disclaimer:** The above information is provided by InforMed and is intended to summarize state CE/CME license requirements for informational purposes only. This is not intended as a comprehensive statement of the law on this topic, nor to be relied upon as authoritative. All information should be verified independently.
For more than 45 years InforMed has been providing high-level education activities to physicians and other health care providers. Through our level of engagement with a wide variety of stakeholders, including our physician association, we have become the foremost public health policy continuing medical education organization in the United States. We are recognized as the leading provider of mandatory CME activities to physicians as a means of updating knowledge, improving competencies and fulfilling requirements for federal, state, regulatory and license renewal.

Dear Michigan Medical Professionals,

InforMed is pleased to offer this collection of CME activities for physicians that are licensed by the Michigan Board of Medicine and Board of Osteopathic Medicine and Surgery. The uniquely tailored curriculum is customized to the educational needs of the Michigan medical professional. Participants earn AMA PRA Category 1 Credit™ through these self-directed, on-demand courses.

The CME series is designed to streamline the education requirements of the Michigan Board of Medicine and Michigan Board of Osteopathic Medicine and Surgery. Licensees who complete this program optimize their learning path while satisfying professional credentialing requirements for three (3) credit hours on Pain and Symptom Management (MDs/DOs), one (1) credit hour on Human Trafficking Training (MDs/DOs/PAs) and one (1) credit hour in Medical Ethics (MDs only). All activities are independently sponsored by InforMed Continuing Medical Education without commercial support.

Thank you for choosing InforMed as your CME provider. Please do not hesitate to contact us with any questions.

-InforMed CME Team

**COMPLETION INSTRUCTIONS**

- **ONLINE:** Visit MI.CME.EDU, select NETPASS to begin. After receiving a passing score on the test(s), claim your credit and print your verified certificate.

- **MAIL:** Use the enclosed envelope to mail self-assessment answer sheet, course evaluations and payment information to InforMed. If the envelope has been misplaced, please mail to the following address:

  1015 Atlantic Blvd. #301
  Jacksonville, FL 32233

- **FAX:** Fax self-assessment answers, course evaluation and payment information. Scores of 70% or higher will receive a verified certificate. For answers submitted via fax, please allow us 24 hours to process your request.
OPIOID ANALGESICS IN THE MANAGEMENT OF ACUTE & CHRONIC PAIN

TARGET AUDIENCE
This course is designed for all physicians and health care providers involved in the treatment and monitoring of patients with pain.

COURSE OBJECTIVE
This course is designed to increase physician knowledge and skills regarding guideline-recommended principles of pain management, the range of opioid and non-opioid analgesic treatment options, and specific strategies for minimizing opioid analgesic prescription, diversion, and abuse.

LEARNING OBJECTIVES
Completion of this course will better enable the course participant to:
1. Discuss the fundamental concepts of pain management, including pain types and mechanisms of action of major analgesics.
2. Identify the range of therapeutic options for managing acute and chronic pain, including non-pharmacologic approaches and pharmacologic (non-opioid and opioid analgesics) therapies.
3. Explain how to integrate opioid analgesics into a pain treatment plan individualized to the needs of the patient, including counseling patients and caregivers about the safe use of opioid analgesics.
4. Discuss recommendations for incorporating emergency opioid antagonists into prescribing practice, and for training patients and family members on the use of naloxone.
5. Recognize the risks of addiction inherent in the use of opioids for both acute and chronic pain and identify strategies to mitigate risks of diversion and misuse.
6. Identify medications currently approved for the treatment of opioid use disorder and the ways these medications differ in terms of mechanisms of action, regulatory requirements, and modes of administration.

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DESIGNATION STATEMENT
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• Paul J. Christo, MD, MBA has received honoraria from GlaxoSmithKline, Daiichi Sankyo, and BTG International.
• Melissa B. Weimer, DO, MCR, FASAM has received honoraria from Alkermes

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The challenge of pain management

The experience of pain has been long-recognized as a national public health problem with profound physical, emotional, and societal costs. Although estimates vary depending on the methodology used to assess pain, chronic pain is estimated to affect 50 million U.S. adults, and 19.6 million of those adults experience high-impact chronic pain that interferes with daily life or work activities. The cost of pain in the United States is estimated at between $560 billion and $635 billion annually. Primary care physicians, pain specialists, and other healthcare providers have been working to improve care for those suffering from acute and chronic pain in an era challenged by the opioid crisis.

The United States has seen three successive waves of opioid overdose deaths related to both legal and illegal opioids (Figure 1). The first began in the 1990s and was associated with steadily rising rates of prescription opioids. In 2010, deaths from heroin increased sharply, and by 2011 opioid overdose deaths reached “epidemic” levels as described by the Centers for Disease Control and Prevention (CDC). The third wave began in 2013 with a sharp rise in overdose deaths attributed to synthetic opioids, particularly those involving illicitly-manufactured fentanyl. By 2017 (the latest year for which data are available) an average of 130 people were dying every day from opioid-related overdoses. Between 1999 and 2017, the CDC estimates that nearly 400,000 people in the United States died from such overdoses.

Coupled with rising rates of overdose death are equally dramatic increases in the number of people misusing or abusing opioids. As many as 1 in 4 patients on long-term opioid therapy in a primary care setting are estimated to be struggling with opioid use disorder (OUD), also called opioid addiction. In 2016 approximately 11.5 million Americans reported misusing prescription opioids in the previous year.

Although the rates of opioid prescriptions have leveled off or declined slightly in recent years, the average days of supply per opioid prescription has continued to rise (Figure 2). Between 2006 and 2016, average days of supply per prescription increased from 13.3 days to 18.3 days, an overall relative increase of 37.6%.

The surge in opioid prescribing affects patients of all ages, including the elderly. Nearly one in three Medicare beneficiaries received a prescription for oxycodone ER, hydrocodone-acetaminophen, oxycodone-acetaminophen, or fentanyl in 2016. Medicare spending under Part D for these opioid pain medications has grown substantially as well, exceeding $4 billion in 2015.

It is against this background that providers must make daily decisions about how best to treat their patients in pain. Unfortunately, many providers are unfamiliar with the growing evidence base suggesting that opioids are actually not very effective for relieving chronic non-cancer pain in the long-term and, in fact, may be associated with harms such as increased pain, reduced functioning, and physical opioid dependence. Providers may also not be aware of the expanding range of both non-opioid medications and non-pharmacological therapies shown to be effective in reducing many common chronic pain conditions.

This CME learning activity discusses the management of chronic and acute pain in a variety of patient populations and is structured to conform to the Food and Drug Administration’s (FDA’s) 2018 Blueprint for Health Care Providers Involved in the Treatment and Monitoring of Patients with Pain. It reviews evidence for non-opioid therapies, including non-drug and non-opioid drug options, as well as current evidence regarding opioid efficacy, harms, and overdose prevention with naloxone, and how to slowly and safely taper opioid doses.

The nature of pain

As unpleasant as it is, acute pain serves an important adaptive biological purpose: it alerts people to internal or external bodily damage or dysfunction. Acute pain can provoke a range of protective reflexes (e.g., withdrawal of a damaged limb, muscle spasm, autonomic responses) that can prevent further damage and help the body heal. Even brief episodes of acute pain, however, can induce suffering, neuronal remodeling, and can set the stage for chronic pain.

Key opioid-related terms

Opioid: any psychoactive chemical resembling morphine, including opiates, and binding to opioid receptors in the brain. This term describes opioid and opiates.

Opiate: “natural” opioids derived from the opium poppy (e.g., opium, morphine, heroin).

Semi-synthetic opioids: analgesics containing both natural and manufactured compounds (e.g., oxycodone, hydrocodone, hydromorphone, oxymorphone).

Synthetic opioids: fully-human-made compounds (e.g., methadone, tramadol, and fentanyl).

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Pain can be classified on the basis of its pathophysiology. Nociceptive pain is caused by the activation of nociceptors (pain receptors), and is generally, though not always, short-lived, and associated with the presence of an underlying medical condition. This is “normal” acute pain: a physiological response to an injurious stimulus. Neuropathic pain, on the other hand, results from an injury to the peripheral or central nervous system. It is an abnormal response to a stimulus caused by dysfunctional neuronal firing in the absence of active tissue damage. It may be continuous or episodic and varies widely in how it is perceived. Neuropathic pain is complex and can be difficult to diagnose.

Related to both nociceptive and neuropathic pain is the phenomenon of sensitization, which is a state of hyperexcitability in either peripheral nociceptors or neurons in the central nervous system (i.e., central sensitization). Sensitization may lead to either hyperalgesia (heightened pain from a stimulus that normally provokes pain) or allodynia (pain from a stimulus that is not normally painful). Sensitization may arise from intense, repeated, or prolonged stimulation and subsequent upregulation of nociceptors, from the influence of compounds released by the body in response to tissue damage or inflammation, or sometimes as an adaptation to prolonged exposure to opioid analgesics. Many patients—particularly those with chronic pain—experience pain with both nociceptive and neuropathic components, which complicates assessment and treatment.

Differentiating between nociceptive and neuropathic pain is critical because the two respond differently to pain treatments. Neuropathic pain, for example, may respond poorly to both opioid analgesics and non-steroidal anti-inflammatory (NSAID) agents. Other classes of medications, such as anti-epileptics, antidepressants, or local anesthetics, may provide more effective relief for neuropathic pain.

Another important dimension of pain is its effects beyond strictly physiological functioning. Pain is currently viewed as a multi-dimensional, multi-level process similar in many ways to other disease processes which may start with a specific injury but which can lead to a cascade of events that can include physical deconditioning, psychological and emotional burdens, and dysfunctional behavior patterns that affect not just the sufferer, but their entire social milieu (illustrated in Figure 3). The pain community is currently discussing an expansion of the current definition of pain to include a biopsychosocial perspective: “pain is a distressing experience associated with actual or potential tissue damage with sensory, emotional, cognitive, and social components.”

Acute pain is defined as having an abrupt onset and is typically due to an obvious cause, such as an injury or surgical procedure. It has a generally short duration, and usually lasts less than four weeks, improving with time. Acute pain is one of the most common presenting complaints in ambulatory care. In contrast, chronic pain is defined as lasting more than three months or past the time of normal tissue healing. It can result from an underlying medical disease or condition, injury, medical treatment, inflammation, or an unknown cause.

Although pain is expected after injury or surgery, the patient pain experience can vary markedly. The intensity of pain can be influenced by psychological distress (e.g., depression or anxiety), heightened illness concern, or ineffective coping strategies regarding the ability to control pain and function despite it. It may also be shaped by personality, culture, attitudes, and beliefs. For example, injured soldiers who had positive expectations of pain (e.g., evacuation and safe recuperation) requested less analgesic medication than civilians with comparable injury concerns who had more negative associations with pain (e.g., loss of wages and social hardship).

Assessing pain

Goals and Elements of the Initial Assessment

Important goals of the initial assessment of pain include establishing rapport with the patient and providing an overview of the assessment process. These processes help to engage the patient, foster appropriate treatment expectations, and promote a coordinated approach to management. The clinician’s primary objective is to obtain information that will help identify the cause of the pain and guide management. A patient history, physical examination, and appropriate diagnostic studies are typically conducted for this purpose.

Patient history

The patient’s self-report is the most reliable indicator of pain. Physiological and behavioral signs of pain (e.g., tachycardia, grimacing) are neither sensitive nor specific for pain and should not replace patient self-report unless the patient is unable to communicate. Therefore, talking to patients and asking them about their pain (i.e., obtaining a “pain history”) is integral to pain assessment.

The pain history usually is obtained as part of the patient history, which includes the patient’s past medical history, medications, habits (e.g., smoking, alcohol intake), family history, and psychosocial history. Obtaining a comprehensive history provides many potential benefits, including improved management, fewer treatment side effects, improved function and quality of life, and better use of health care resources.

The manner in which information is elicited from the patient is important. Ideally, the clinician should afford ample time, let patients tell their stories in their own words, and ask open-ended questions. Information to be elicited during the initial assessment of pain includes:

• Characteristics of the pain (e.g., duration, location, intensity, quality, exacerbating/alleviating factors)
• Present and past pain management strategies and their outcomes
• Past and present medical problems that may influence the pain and/or its management
• Relevant family history
• Current and past psychosocial issues or factors that may influence the pain and its management
• Pregnancy/contraceptive status
• Functional status
• The impact of the pain on the patient’s daily life and functioning
• The patient’s and family’s knowledge of, expectations about, and goals for pain management.
Assessing the impact of pain on functional status and sleep and screening for mental health conditions potentially related to pain or treatment adherence (e.g., depression, anxiety, and memory issues) may provide useful information for pain management.26 Depression in older patients, for example, sometimes presents with somatic complaints of pain. Pain complaints may resolve when the underlying depression is treated. Patients can also be screened for known risk factors for OUD (see below).

**Assessment tools**

Many tools have been developed to document and assess pain. Initial approaches to assessing pain severity use a visual analog scale (VAS) rating pain from 0 (no pain) to 10 (worst pain you can imagine) (some scales use a 0 to 100 scale). Such scales are often used in clinical trials of pain therapies, and the minimal clinically important difference using these scales is generally considered a 20%-30% change from baseline (i.e., 2-3 points on a 0-10 scale or 20-30 points on a 0-100 scale).27

Multidimensional tools, such as those described below, include questions relating to quality of life and participation in daily activities. Such tools can provide a more comprehensive approach to assessing pain and response to treatment. The selection of a pain assessment tool must balance the comprehensiveness of the assessment obtained with the time and energy required to use the tool in a real-world practice setting.

**Brief pain inventory**

The Brief Pain Inventory (BPI) is used frequently in clinical trials to assess pain. Specifically developed for patients with chronic pain, the BPI more fully captures the impact of pain on patient function and quality of life than simple VAS scales.28 By including a pain map, the BPI allows tracking of the location of pain through the course of management. The BPI is self-administered but somewhat time-consuming, which may limit its role in a busy clinical practice.

**PEG scale**

The PEG scale (Pain average, interference with Enjoyment of life, and interference with General activity) is a three-item tool based on the BPI and is practical for clinical practice (Figure 4). Zero-to-10 scales are used to assess pain, enjoyment of life, and general activity. PEG can be self-administered or done by the clinician and is relatively brief.29

**Assessing acute pain**

Acute pain intensity can be assessed with unidimensional tools such as the VAS and the Wong-Baker FACES Pain Rating Scale (faces depicting increasing levels of pain). While useful for a quick assessment, these scales alone may not appropriately identify patients with pain-related suffering driven by functional limitations, worry, or other factors, and may not detect some patients with clinically significant pain.30

Although developed for patients with chronic pain, the BPI is also applicable to patients with acute pain. Completed by the patient, the BPI captures ways that pain impacts function and quality of life, although, like most multidimensional questionnaires, it requires more time (about 10 minutes) and concentration to complete, which may limit its utility in some elderly patients.28

**Assessing pain in the cognitively impaired**

Although patients with mild-to-moderate dementia can report their pain and its location, those with severe dementia are often unable to communicate their pain experience or request medication. In these patients, physicians need to observe pain behaviors, including facial expressions, verbal cues, body movements, changes in interpersonal interactions, activity patterns, and mental status. Caregiver observations and reports are critical to appropriate assessment and management of chronic pain conditions.31

BEFORE MOVING ONTO THE NEXT SECTION, PLEASE COMPLETE CASE STUDY 1 ON THE NEXT PAGE.

**Screening for risk of chronic pain after acute pain**

A number of factors have been associated with an increased risk for chronic pain following acute pain or surgery including older age, psychological problems, higher levels of pre-procedural pain or pain sensitivity, type and duration of surgery, severity and number of comorbidities, and use of post-procedural radiation or chemotherapy.32

Some tools have been developed to help clinicians predict the likelihood that a patient will experience chronic pain following acute injury or procedures. The 5-item PICKUP model, for example, showed moderate prognostic performance in a derivation study using data from 2,758 patients with acute low back pain.33 Sipila and colleagues developed a 6-item screening instrument for risk factors of persistent pain after breast cancer surgery based on a cohort of 489 women.34

**Screening for opioid abuse risk factors**

Screening and monitoring in pain management seeks to identify patients at risk of substance misuse and overdose as well as improve overall patient care. Evaluations of patient physical and psychological history can screen for risk factors and help characterize pain to inform treatment decisions. Screening approaches include efforts to assess for concurrent substance use and mental health disorders that may place patients at higher risk for OUD and overdose. This includes screening for drug and alcohol use and the use of urine drug testing, when clinically indicated.

### Figure 4: PEG scale

<table>
<thead>
<tr>
<th>Question</th>
<th>Scale</th>
</tr>
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<tbody>
<tr>
<td>1. What number best describes your pain on average in the past week?</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>No pain</td>
<td>Pain as bad as you can imagine</td>
</tr>
<tr>
<td>2. What number best describes how, during the past week, pain has interfered with your enjoyment of life?</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>Does not interfere</td>
<td>Completely interferes</td>
</tr>
<tr>
<td>3. What number best describes how, during the past week, pain has interfered with your general activity?</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>Does not interfere</td>
<td>Completely interferes</td>
</tr>
</tbody>
</table>
Harold, a 62-year-old African American man, uses a walker to slowly make his way down your clinic hallay. In the exam room, he says he has always been physically active, playing golf and enjoying long walks, but now feels exhausted all the time and has lost his desire for previous activities. He was diagnosed with metastatic prostate cancer 17 years ago, and the cancer has been held in check by a novel chemotherapeutic agent. Now, however, he has severe (8 out of 10) axial lumbar pain due to disc herniation at the L4 – L5 region. For the past four months he says he’s been unable to play golf or do any of his former activities, in addition to being tired from disrupted sleep. He describes breakthrough pain occurring despite the Tylenol #3 he was prescribed. “I just can’t go on like this,” he says. “You’ve got to help me out. I’m at the end of my rope.”

**Case Study 1**

**Instructions:** Review the mental health assessment tools below and consider the questions that follow.

**Mental Health Assessment Tools:**

1. **Patient Health Questionnaire –2 (PHQ-2).** This is a simple two-item screening tool. If it is positive on either item, the clinician should offer another more detailed questionnaire to better assess the presence or absence of a depressive disorder. Available at: [https://www.hiv.uw.edu/page/mental-health-screening/phq-2](https://www.hiv.uw.edu/page/mental-health-screening/phq-2)

2. **Patient Health Questionnaire – 9 (PHQ-9).** This nine-item tool screens for a depressive disorder, and is often used as a follow-up to the PHQ-2. It’s easy to score and use. Available at: [https://www.hiv.uw.edu/page/mental-health-screening/phq-9](https://www.hiv.uw.edu/page/mental-health-screening/phq-9)

3. **Zung Self-Rating Depression Scale (Zung).** This is a 20-item written questionnaire. Available at: [https://psychology-tools.com/test/zung-depression-scale](https://psychology-tools.com/test/zung-depression-scale)

4. **Hamilton Depression Rating Scale (Ham-D).** This is a 21-item screening questionnaire. Cutoff scores is <7 is normal. Available at: [https://www.psychcongress.com/hamilton-depression-rating-scale-ham-d](https://www.psychcongress.com/hamilton-depression-rating-scale-ham-d)

5. **Generalized Anxiety Disorder 7-item Scale (GAD).** This is a 7-item scale to screen for generalized anxiety. Available at: [https://psychology-tools.com/test/gad-7](https://psychology-tools.com/test/gad-7)

6. **Primary Care PTSD (PC-PTSD).** This is a four item screening test for Post-Traumatic Stress Disorder. Available at: [https://www.ptsd.va.gov/professional/assessment/screens/pc-ptsd.asp](https://www.ptsd.va.gov/professional/assessment/screens/pc-ptsd.asp)

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11. **Generalized Anxiety Disorder 7-item Scale (GAD).** This is a 7-item scale to screen for generalized anxiety. Available at: [https://psychology-tools.com/test/gad-7](https://psychology-tools.com/test/gad-7)

12. **Primary Care PTSD (PC-PTSD).** This is a four item screening test for Post-Traumatic Stress Disorder. Available at: [https://www.ptsd.va.gov/professional/assessment/screens/pc-ptsd.asp](https://www.ptsd.va.gov/professional/assessment/screens/pc-ptsd.asp)

These approaches enable providers to identify high-risk patients so that they can consider substance misuse and mental health interventions, and education materials to mitigate opioid misuse. Many tools have been developed for the formal assessment of a patient’s risk of having a substance misuse problem, some of which are appropriate for routine clinical use because they are relatively brief and easily implemented. Table 1 lists the tools that appear to have good content, and face construct validity for assessing patient risks related to chronic opioid therapy, although to date, no single tool has been widely endorsed or thoroughly validated.

The Screening, Brief Intervention and Referral to Treatment (SBIRT) is an evidence-based tool used to facilitate screening patients for OUD, which typically takes 5–10 minutes to administer. SBIRT has been endorsed by the Substance Abuse and Mental Health Services Administration (SAMHSA), but should always be paired with referral to treatment. SAMHSA recommends universal screening with oral or writing-based tools because of the high prevalence of substance use disorders in patients visiting primary care settings. In contrast, universal screening with urine, blood, or oral fluid tests are not recommended. In the context of pain care, however, the 2016 CDC guidelines recommend urine drug testing before initiating opioid therapy and probably at least annually when prescribing opioids for chronic pain. Other tools for universal substance abuse screening include:

- Single question screening tool for drug use
- Drug Abuse Screening Test (DAST) 10
- Alcohol, Smoking, and Substance Involvement Screening Test (ASSIST)
- Tobacco, Alcohol, Prescription medication, and other Substance use (TAPS)
- CAGE questionnaire adapted to include drugs (CAGE-AID)

If results from an assessment tool indicate that a patient has misused opioids, probe further using the “5 As” approach:

1. **Ask specifically about opioid use**
2. **Advise patients to use medication-assisted treatment for opioid use disorder with, or without, psychotherapeutic or cognitive-behavioral treatments**
3. **Assess the patient’s willingness to enter treatment and diagnose OUD using DSM-5 criteria**
4. **Assist patients by connecting them with treatment (provide a referral if not available in-office)**
5. **Arrange follow-up appointments, either in person or by telephone**

**Using prescription drug monitoring programs (PDMPs)**

As of April, 2019, all U.S. states (except Missouri and the District of Columbia) have operational PDMPs. Information available through PDMPs varies based on reporting requirements and restrictions, but may include DEA schedules reported, timeliness of pharmacy dispensing information, access, and required reviews. Recommendations for PDMP use include:

- **Check the PDMP before starting anyone on opioid therapy.**
- **Review the PDMP periodically throughout opioid therapy (at least every 3 months).**
- **Look for prescriptions for other controlled substances, like benzodiazepines, that can increase risk of overdose death.**
- **Review the total MMED.”**
Screen for risk of opioid addiction
24 items
5 yes/no questions
Length
7 items
supervised by a licensed
17 items
Patient self-report
Who Administers?
Clinician
Screener and Opioid Assessment for Patients with Pain, Version 1 and Revised (SOAPP, and SOAPP-R)
Screen for risk of opioid addiction
Patient self-report
24 items

Some states have specific requirements for PDMP use, such as requiring review prior to initial prescription or any time a specific prescription is written, such as for hydrocodone ER (Zohydro), therefore clinicians should remain updated about the specific requirements of their state PDMPs.

Urine drug testing
Urine drug testing (UDT) is recommended before prescribing any opioid and at least annually thereafter.01 Providers using urine drug screens should be familiar with the metabolites and expected positive results based on the opioid prescribed. For example, a patient taking oxycodone may test positive for both oxycodone and oxymorphone (a metabolite).02 UDT often involves both presumptive (screen) testing, and definitive (quantitative) testing because many synthetic and semisynthetic opioids cannot be detected by presumptive testing alone.01

If the prescribed opioid is not detected, discuss the finding with the patient and, if diversion is confirmed or suspected, re-evaluate the pain management strategy or taper the opioid. If the patient tests positive for unprescribed drugs schedule more frequent follow-up visits, consider opioid discontinuation, offer naloxone, or refer for treatment for substance use disorder. Decision tools and help with interpreting urine drug testing results are available at: http://mytopcare.org/udt-calculator/interpret-opiates-test-result.

Overview of options for managing pain
Many pharmacologic and non-pharmacologic approaches to treating pain are available to primary care providers. These options should be employed using the following general principles:

- Identify and treat the source of the pain, if possible, although pain treatment can begin before the source of the pain is determined
- Select the simplest approach to pain management first. This generally means using non-pharmacologic approaches as much as possible and/or trying medications with the least severe potential side effects, and at the lowest effective doses.
- Establish a function-based, individualized treatment plan if therapy is expected to be long-term.

Non-drug approaches
Many nonpharmacologic and self management treatment options have been found to be effective alone or as part of a comprehensive pain management plan, particularly for musculoskeletal pain and chronic pain.03 Examples include, but are not limited to, psychological, physical rehabilitative and surgical approaches, procedural therapies (e.g., injections, nerve blocks), complementary therapies, and use of approved/cleared medical devices for pain management.

Primary care providers should know about the range of treatment options available, the types of pain that may be responsive to those options, and when they should be used as part of a multidisciplinary approach to pain management.01 Clinicians should also be aware that not all nonpharmacologic options have the same strength of evidence to support their utility in the management of pain, and some may be more applicable for some conditions than others.

Movement-based options
Movement therapies that may be helpful in patients with chronic pain include muscle-strengthening, stretching, and aerobic exercise (e.g., walking, aquatics). Recommended exercise programs typically occur one to three times a week for a total of 60-180 minutes per week, but any regimen must be carefully tailored to a patient’s existing level of physical conditioning, comorbidities, and cognitive status.04

Additional movement-based options include:
- Physical therapy supervised by a licensed physical therapist, which can include resistance, aerobic, balance, and flexibility exercises as well as elements of massage, manipulation, or transcutaneous electrical nerve stimulation.
- Tai chi, a mind-body practice that combines controlled movements, meditation, and deep breathing. “Chair tai chi” can be an option for patients with limited mobility.
- Yoga, exercises or a series of postures designed to align muscle and bones, and increase strength and flexibility. It can also relax mind and body through breathing exercises and meditation. Gentler forms of yoga that may be more appropriate for older patients include Iyengar, Hatha, or Viniyoga.

Although these interventions may cause muscle soreness, increased back pain, or falls, movement-based options are generally considered safe.06

Weight loss
Some pain syndromes, such as knee osteoarthritis, are worsened by obesity. For some patients, pain due to this condition is improved by reducing body weight because of reduced loads and physical stresses on the affected joints. The goal of body weight reduction is a baseline weight loss of 7%-10% by calorie reduction and increased activity using a balanced diet with less than 30% of calories from fat, 15%-20% from protein, and 45%-60% from carbohydrates.07

Passive options
Acupuncture involves the stimulation of specific points on the body, most often involving skin penetration with fine metallic needles manipulated by hand but sometimes also including electrical stimulation or low intensity laser therapy. Potential adverse events include minor bruising and bleeding at needle insertion sites.08

Massage is the manual manipulation of the body to promote relaxation, reduce stress and improve well-being. Handheld devices may also provide relief for some patients. Some patients may report muscle soreness.09

Transcutaneous electrical nerve stimulation (TENS) is a machine that generates mild electrical pulses which are applied cutaneously. The electrical stimulation from TENS may block or disrupt pain signals to the brain, reducing pain perception. TENS machines can be used at home or in conjunction with other interventions like physical therapy.

Cognitive and behavioral options
Cognitive behavioral therapy (CBT) is a structured, time-limited (typically 3-10 weeks) intervention focused on how thoughts, beliefs, attitudes, and emotions influence pain and can help patients use their minds to control and adapt to pain. This therapy includes setting goals, often with recommendations to increase activity to reduce feelings of helplessness.10

Mediation
Mindfulness meditation programs typically include a time-limited (8 weeks; range 3-12 weeks) trainings with group classes and home meditation. The objective is to inculcate a long-term practice that helps patients refocus their minds on the present, increase awareness of self and surroundings, and refrain experiences.1112

<table>
<thead>
<tr>
<th>Tool</th>
<th>Use</th>
<th>Who Administers?</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Opioid Misuse Measure (COMM)</td>
<td>Monitor for misuse by patients currently on long-term opioid therapy</td>
<td>Patient self-report</td>
<td>17 items</td>
</tr>
<tr>
<td>Diagnosis, Intractability, Risk, Efficacy (DIRE)</td>
<td>Screen for risk of opioid addiction</td>
<td>Clinician</td>
<td>7 items</td>
</tr>
<tr>
<td>Opioid Risk Tool (ORT)</td>
<td>Screen for risk of opioid addiction</td>
<td>Clinician or patient self-report</td>
<td>5 yes/no questions</td>
</tr>
<tr>
<td>Screener and Opioid Assessment for Patients with Pain, Version 1 and Revised (SOAPP, and SOAPP-R)</td>
<td>Screen for risk of opioid addiction</td>
<td>Patient self-report</td>
<td>24 items</td>
</tr>
</tbody>
</table>
Interventions
Several types of injection therapies can help to ease pain and provide durable relief. In the spine, multiple pain generators can be targeted: facet joints, discs, nerves, and muscles.\textsuperscript{51} Parts of the sympathetic nervous system can be accessed with therapeutic injections for patients with visceral pain, and injections into specific joints with steroid or viscous supplements can reduce joint pain.\textsuperscript{52} Epidural steroid injections, radiofrequency ablation, pulsed radiofrequency procedures, and neuromodulation treatments (spinal cord stimulation, peripheral nerve stimulation) all have an important role in reducing chronic pain.\textsuperscript{54-56}

Non-opioid drug approaches
A wide range of medications can be used to treat pain, including:
- Acetaminophen
- NSAIDs (oral or topical)
- Antidepressants
  - serotonin and/or norepinephrine reuptake inhibitors
  - tricyclic antidepressants (TCAs)
  - selective serotonin reuptake inhibitors (SSRIs)
- Anticonvulsants
- Topical lidocaine or capsaicin
- Cannabinoid-based therapies
- Ketamine

Acetaminophen
Acetaminophen is available over the counter (OTC) in 325 mg, 500 mg, and 650 mg tablets. Lower doses are recommended to decrease risk of side effects. Patients should not exceed 1000 mg in a single dose. The maximum recommended dose for healthy adults is 4000 mg/day and 3000 mg/day for elderly patients.\textsuperscript{57}

The most severe potential side effect of acetaminophen is liver toxicity. Acetaminophen is the most common cause of acute liver failure, accounting for 46\% of all cases.\textsuperscript{64} Patients should stay within recommended doses to help prevent side effects and should only be prescribed one acetaminophen-containing product at a time. Advise patients to read labels of all medications to determine if the product contains acetaminophen.

NSAIDs
NSAIDs reduce inflammation by inhibiting cyclooxygenase (COX), either selectively (COX-2 predominantly) or non-selectively (COX-1 and COX-2 effects). Chronic use of NSAIDs may be limited by gastrointestinal (GI) toxicity, including GI bleeding, upper GI symptoms, ulcers, and related complications. For high-risk patients, including the elderly, patients on warfarin or aspirin, and those with coagulopathies, adding a proton pump inhibitor (PPI) may help reduce the risk.\textsuperscript{59,60} In addition to GI side effects, NSAIDs have been associated with an increased risk of renal and cardiac complications.

Side effects with NSAIDs are typically lower with topical formulations. The effects on coagulation and renal function are unknown, but likely not clinically significant given limited systemic absorption.\textsuperscript{61}

Some early trials suggested that COX-2 inhibitors, as a class, were associated with higher risks for myocardial infarction and stroke compared to other NSAIDs, and the COX-2 inhibitor rofecoxib (Vioxx) was removed from the market in 2004 because of such concerns.\textsuperscript{52} More recent trials and meta-analyses, however, provide strong evidence that the risks of CV events with celecoxib are no greater than those of other NSAIDs, and in 2018 two FDA advisory panels recommended that the FDA change its advice to physicians regarding celecoxib’s safety.\textsuperscript{63}

Selective norepinephrine reuptake inhibitors
SNRIs such as duloxetine, venlafaxine, and milnacipran are characterized by a mixed action on norepinephrine and serotonin, though their exact mechanism of action for pain reduction is unknown. Side effects (e.g., nausea, dizziness, and somnolence) may limit treatment. Monitoring is required for blood pressure (duloxetine and venlafaxine), heart rate (venlafaxine), and drug interactions (duloxetine). SNRIs can be very helpful in patients who have central sensitization.

TCAs
TCAs inhibit reuptake of norepinephrine and serotonin, but their mechanism of action for pain relief is unknown. Examples of TCAs studied for the management of chronic pain include amitriptyline, desipramine, and nortriptyline. Side effects, such as anticholinergic effects (e.g., dry mouth, constipation, dizziness) and QTc prolongation limit the use of TCAs in elderly patients. The majority of side effects occur at the typically higher doses used to treat depression.

SSRIs
SSRIs, such as citalopram, fluoxetine, and paroxetine, block the reuptake of serotonin in the brain, making more serotonin available in the synapse. The mechanism of SSRIs for pain remains unknown. Compared to SNRIs and TCAs, there is relatively little evidence to support the use of SSRIs in treating chronic pain conditions.\textsuperscript{35} Potential side effects of SSRIs include weight gain, sexual dysfunction, and QTc prolongation, especially with citalopram.

Anticonvulsants
Anticonvulsants, such as gabapentin, pregabalin, oxcarbazepine, and carbamazepine, are often prescribed for neuropathic pain and are thought to exert their analgesic effect by inhibiting neuronal calcium channels. Potential side effects include sedation, dizziness, and peripheral edema. Pregabalin and gabapentin have abuse potential in the general population, are currently classified as Schedule V by the DEA, and prescriptions for these drugs are tracked by some state Prescription Drug Monitoring Programs (PDMPs). Anticonvulsants can be very helpful in patients who have central sensitization.

Topical lidocaine and capsaicin
Topical lidocaine inhibits the conduction of nociceptive nerve impulses. Irritation at the application site is the most common side effect. The most common products for chronic pain management are lidocaine 5\% patches, available by prescription, and lidocaine 4\% patches available OTC. Capsaicin is an active component of chili peppers and has moderate analgesic properties at 8\% concentrations for musculoskeletal and neuropathic pain.\textsuperscript{54} The most common side effect is a mild-to-severe burning sensation at the application site.

Cannabinoid preparations
With medical cannabis now legal in 33 states and recreational use legal in 10 states and the District of Columbia (as of April, 2019),\textsuperscript{65} there has been increased interest among patients for the use of cannabis or cannabis derivatives (e.g., cannabidiol [CBD]) for pain relief. The CB1 and CB2 receptors have been shown to mediate the analgesic effects of cannabinoids\textsuperscript{49} and some evidence suggests a potential benefit for chronic pain. A 2017 National Academies of Science report, for example, concluded that “conclusive or substantial evidence” supports a beneficial role for cannabis or cannabinoids for treating chronic pain,\textsuperscript{67} and a 2018 Cochrane review of the existing literature evaluating cannabinoids (cannabis, CBD, or combinations) suggests that these agents are moderately effective for neuropathic pain with adverse effects that are less than, or comparable to, existing non-opioid analgesics.\textsuperscript{68}

But the evidence for a benefit of cannabinoids on acute pain, is extremely limited and mixed. A small double-blind, cross-over study in 18 females and experimentally-induced mild acute pain found no significant analgesic effect of oral cannabis extract.\textsuperscript{69} Another randomized, double-blind study with 15 healthy volunteers using smoked cannabis found no analgesic effect with low doses of cannabis, a modest effect with moderate doses, and enhanced pain responses with high doses.\textsuperscript{70} The authors of a 2017 review on cannabis and pain conclude that cannabis may have a narrow therapeutic window as a pharmacotherapy for chronic pain but that much more research is needed to inform physician recommendations to patients regarding the analgesic efficacy of cannabis.\textsuperscript{61}

A systematic review of both randomized trials (47) and observational studies (57) in patients with chronic noncancer pain published through July 2017 found moderate evidence that cannabinoids can exert analgesia.\textsuperscript{72}
Cannabis preparations, however, may pose both short-term and long-term risks. Short-term effects include impaired memory, motor coordination, and judgment. Paranoiac ideation and psychotic symptoms, while rare, may occur with high doses of THC. Possible long-term effects include impaired brain development in young adults, potential for habituation, and increased risk of anxiety or depression. Adupt cessation of marijuana in long-term users may cause withdrawal symptoms such as anxiety, irritability, craving, dysphoria, and insomnia. There is an increased risk of chronic bronchitis, respiratory infections, and pneumonia with inhaled products.73

Nonetheless, the use of cannabis may have an opioid-sparing effect at a population level. The use of medical cannabis has been associated with a 25% reduction in opioid overdose mortality in states that legalized medical use.74

FDA-approved cannabinoids include dronabinol indicated for second-line treatment of chemotherapy-induced nausea and vomiting, and anorexia-associated weight loss in patients with HIV. Nabilone is indicated for chemotherapy-induced nausea and vomiting. Common side effects include dizziness/vertigo and euphoria. Dronabinol may cause nausea/vomiting, abdominal pain, and abnormal thinking. Nabilone may cause ataxia and dry mouth.73,75,76 None of these are indicated for the treatment of pain. When recommending cannabis for patients with chronic pain, clinicians should inform patients that the analgesic properties of cannabis are only attributed to the CBD component, not the THC component.

Ketamine

Ketamine has been used as a general anesthetic since the 1960s, but its use in subanesthetic concentrations for analgesia has grown rapidly in recent years, due, in part, to efforts to reduce the risks of chronic opioid use.77 Ketamine has been successfully used to treat such acute pain conditions as sircle cell crises, renal colic, and trauma.77 Recently the American Society of Regional Anesthesia and Pain Medicine, the American Academy of Pain Medicine, and the American Society of Anesthesiologists released the first joint recommendations for subanesthetic ketamine (including transdermal ketamine) for acute pain with the following guidelines:77

- **Indications**
  - Perioperative use in surgery with moderate to severe postoperative pain
  - Perioperative use in patients with opioid tolerance
  - Adjunct in opioid-tolerant patients with sickle cell crisis
  - Adjunct in patients with obstructive sleep apnea
- **Dose**
  - Bolus IV: up to 0.35 mg/kg
- **Contraindications**
  - Infusion: up to 1 mg/kg/hour
  - Poorly-controlled cardiovascular disease
  - Pregnancy
  - Psychosis
  - Severe hepatic disease
  - Elevated intracranial pressure
  - Elevated intraocular pressure

### Table 2: Common opioids by schedule78

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Description</th>
<th>Opioid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schedule I</td>
<td>No medical use, lack of accepted safety, and a high potential for abuse</td>
<td>Heroin</td>
</tr>
<tr>
<td>Schedule II</td>
<td>High potential for abuse, which may lead to physical or psychological dependence</td>
<td>Hydrocodone, Oxycodone, Morphine, Hydromorphone, Tapentadol, Methadone, Fentanyl</td>
</tr>
<tr>
<td>Schedule III</td>
<td>Less potential for abuse than schedules I and II, low to moderate physical dependence and high psychological dependence</td>
<td>Buprenorphine, Codeine + Acetaminophen</td>
</tr>
<tr>
<td>Schedule IV</td>
<td>Lower potential for abuse than schedule III medications</td>
<td>Tramadol</td>
</tr>
</tbody>
</table>

For chronic pain, the evidence that opioids reduce pain and improve function more than placebo is relatively weak. A 2018 systematic review and meta-analysis of 96 trials comparing various opioids vs. placebo or non-opioid analgesics in 26,169 patients with chronic noncancer pain found that opioids may slightly reduce pain and increase physical functioning compared to placebo, but not compared to non-opioids.13 In 76 trials comparing opioids vs. placebo with follow-up ranging from 1 to 6 months, the reduction in pain scores with opioids (on a 10-point scale) was only 0.69 points, which is below the generally-accepted 2-point minimum clinically important difference for pain. Physical function scores (on a 100-point scale) improved with opioids by 2.04 points, which, again, may not be clinically important. The risk of vomiting with opioids, however, was more than 4 times higher than with placebo.13

The same meta-analysis compared opioids to non-opioid analgesics including NSAIDs, TCAs, anticonvulsants, and synthetic cannabinoids. No significant differences were found in physical function scores for any of the comparisons, and no significant differences were found in pain scores for comparisons with NSAIDs, TCAs, or cannabinoids.13

The Strategies for Prescribing Analgesics Comparative Effectiveness (SPACE) trial randomized 240 patients with moderate to severe chronic low back pain or knee or hip osteoarthritis to regimens of morphine, oxycodone, or hydrocodone or non-opioid analgesics (e.g., acetaminophen, NSAIDs, antidepressants, anti-epileptics) and followed them for 1 year.14 At 3, 6, 9, and 12 months there were no significant differences in pain scores. At 1 year, pain intensity was significantly better in the non-opioid group. No differences in treatment response were seen in analyses by pain condition. The authors concluded that their results “do not support initiation of opioid therapy for moderate-to-severe chronic back pain or hip or knee osteoarthritis pain.”14
Opioid formulations

Prescription opioids are available in immediate-release and extended-release/long-acting (ER/LA) formulations (Table 3). Immediate-release agents are recommended in opioid-naïve patients and for all acute pain conditions, with ER/LA agents reserved for patients or conditions in which the longer duration of action and smoother pharmacodynamics are preferred.39 A trial comparing immediate release to an ER/LA opioid did not find evidence that the continuous, time-scheduled use of ER/LA opioids was more effective or safer than intermittent use of the immediate-release opioid.38 According to the FDA, ER/LA opioids should only be used for patients who tolerate 60 morphine milligram equivalents per day (MMED) for at least one week.82 Efforts to create formulations with lower risks of abuse have met with limited success. For example, ER Oxymorphone was removed from the market after reports of intravenous abuse of the oral formulation.83 Abuse-deterrent or tamper-resistant formulations do not prevent patients from developing opioid dependence, opioid use disorder, or simply taking too much of an opioid by mouth.84,85 No prospective randomized clinical trials or rigorous observational studies have measured the impact of abuse-deterrent opioids on the risk of abuse or misuse. As of August 2018, eight opioids with abuse-deterrent properties have been approved by the FDA.86

BEFORE MOVING ONTO THE NEXT SECTION, PLEASE COMPLETE CASE STUDY 2.

Table 3: Immediate-release vs. extended-release/long-acting opioids

<table>
<thead>
<tr>
<th>Immediate-release formulations</th>
<th>Extended-release/Long-acting formulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Codeine</td>
<td>Buprenorphine transdermal patch</td>
</tr>
<tr>
<td>Hydrocodone + acetaminophen</td>
<td>Fentanyl transdermal patch</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>Hydrocodone ER</td>
</tr>
<tr>
<td>Levorphanol</td>
<td>Hydromorphone ER</td>
</tr>
<tr>
<td>Meperidine</td>
<td>Methadone</td>
</tr>
<tr>
<td>Morphine</td>
<td>Morphine ER</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>Morphine ER + naltrexone</td>
</tr>
<tr>
<td>Oxymorphone</td>
<td>Oxycodone ER</td>
</tr>
<tr>
<td>Tapentadol</td>
<td>Oxycodone ER + naloxone</td>
</tr>
<tr>
<td>Tramadol</td>
<td>Tapentadol ER</td>
</tr>
<tr>
<td></td>
<td>Tramadol ER</td>
</tr>
</tbody>
</table>

Atypical opioids: tramadol and tapentadol

Tramadol and tapentadol are mu receptor agonists and norepinephrine reuptake inhibitors. Their mechanisms of action are unknown, but their analgesic effects are similar to morphine. Patients taking tramadol should be monitored for nausea, vomiting, constipation, and drowsiness, all of which are similar to side effects with opioids.87 There is potential risk of serotonin syndrome when tramadol is combined with SSRIs, SNRIs, or tricyclic antidepressants.88

As noted above, tramadol is classified as Schedule IV, which has led some to view it as less potent or safer than other opioids. The 2016 National Survey on Drug Use and Health, however, found that 1.7 million people in the U.S. aged >12 years reported misusing tramadol products (e.g., Ultram, Ultram ER, Ultracet) in the previous year.79 In addition, a 2019 cohort study of 88,902 patients with osteoarthritis showed increased risks of death at one year compared to NSAIDs naproxen, diclofenac, and celecoxib.89 Abrupt cessation of tramadol is associated with opioid withdrawal, restlessness, and drug cravings (similar to those associated with other opioids) as well as hallucinations, paranoia, extreme anxiety, panic attacks, confusion, and numbness/tingling in extremities (which are less typical of other opioids).90

Tapentadol is FDA-approved for treating neuropathic pain, although it is also used for musculoskeletal pain. A 2015 Cochrane review of 4 randomized trials with 4,094 patients with osteoarthritis or back pain found modest reductions in pain with tapentadol vs. placebo.91

Case Study 2

Instructions: Review the case below and consider the questions that follow.

Ralph is an 83-year-old who lives at home with his wife. He has a history of cardiovascular disease and, 10 years earlier, had successful quadruple bypass surgery. He takes the following medications: fish oil, a statin, a thiazide diuretic, low-dose aspirin, and a non-benzodiazepine sedative to help him sleep. Lately he has been complaining of increasing pain and stiffness in his right knee and hip. He is physically deconditioned due to a lack of exercise, in part because walking is painful. He asks if you can prescribe something to ease his pain.

1. Is Ralph a good candidate for an ER/LA opioid? Why, or why not?

2. Is he a better candidate for an immediate-release opioid? Why or why not?

3. Would Ralph’s current medication need to be adjusted if he were to be prescribed an ER/LA opioid?

4. What kinds of non-opioid treatments might be tried to help Ralph with his pain?
**Problems in opioid use**

Although evidence for the long-term effectiveness of opioids for chronic pain is weak, evidence for opioid-related harms is abundant and strong. In a 2007 study assessing behaviors indicative of opioid misuse, many patients in primary care practices reported having engaged in aberrant behaviors with opioids one or more times (Table 4). It is important to recognize and differentiate problematic use from adverse side effects of opioids. For instance, tolerance and opioid withdrawal occur with long term use of prescribed opioids. Clinicians should be able to differentiate this from problematic use.

Among adults without a prescription, 41% obtained prescription opioids from friends or relatives for their most recent episodes of misuse. A 2015 meta-analysis showed that the prevalence of opioid abuse in primary care settings ranged from 0.6%-8%, and the prevalence of opioid dependence ranged from 3%-26%. In pain clinics, the prevalence of opioid abuse ranged from 8%-16%, and addiction ranged from 2%-14%. In eastern Pennsylvania, the lifetime prevalence of opioid use disorder among patients prescribed long-term opioids was estimated at 35%.

For prescription opioids, long-term therapy is associated with an increased risk in accidental overdose and death. A retrospective study including 9,940 patients who received three or more opioid prescriptions within 90 days for chronic pain between 1997 and 2005 found that annual overdose rates rose significantly as doses exceeded 50 MMED (Figure 5).

To ensure clear communication regarding medical issues and avoid misunderstandings about the nature and risk of addiction, the American Society of Addiction Medicine recommends the following definitions to help differentiate problem use from normal use of opioids:

- **Abuse** - Any use of an illegal drug, or the intentional self-administration of a medication, for a non-medical purpose, such as altering one’s state of consciousness (e.g., getting high).
- **Misuse** - Use of a medication other than as directed or as indicated, whether wilful or unintentional, and whether harm results or not.
- **Tolerance** – when the same dose of a drug given repeatedly produces a reduced biological response. This is a normal process that occurs with long term use of a prescribed opioid.
- **Physical dependence** - A state of physical 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. Most importantly (and most difficult for providers to determine) this is not synonymous with addiction.
- **Opioid use disorder (addiction)** - Problematic opioid use leading to clinically significant impairment or distress, with at least two additional criteria, such as taking more opioids or for longer than prescribed, persistent desire or unsuccessful efforts to cut down or control opioid use, and craving or a strong desire or urge to use opioids, occurring within a 12-month period.

Combining opioids with sedating drugs such as benzodiazepines or alcohol increases the risk of respiratory depression and overdose death. Benzodiazepines have been linked with overdose fatalities in 50-80% of heroin overdoses, and 40-80% in methadone-related deaths. Patients prescribed benzodiazepines who are being initiated on opioids should have their benzodiazepine tapered and discontinued whenever possible. For patients being co-managed by mental health professionals, coordinate a plan regarding continuing or tapering benzodiazepines in the setting of opioid co-prescribing.

**Other adverse events**

In addition to risks of misuse, addiction, respiratory depression, and overdose death, there are many well-known side effects associated with chronic opioid use that can significantly compromise quality of life, including constipation, nausea or vomiting, sedation, pruritus, erectile dysfunction, menstrual changes, fracture, immunosuppression, hallucinations, and hyperalgesia.

**Gastrointestinal side effects**

Constipation is one of the most common opioid-related adverse events, affecting most patients to at least some degree, and which usually does not resolve with continued exposure. To mitigate this side effect, patients should use a mild stimulant laxative such as senna or bisacodyl and increase the dosage in 48 hours if no bowel movement occurs. Physicians should perform a rectal examination if no bowel movement occurs in 72 hours. If there is no impaction, consider other therapies such as an enema, suppository, or magnesium citrate.

Medications for refractory, opioid-induced constipation include naldixone derivatives: naloxegol (Movantik), methylaltrexone (Relistor), or naloxide (Symproic). Naloxegol is an oral tablet that is used daily while methylaltrexone is a subcutaneous injection or oral tablet used daily. Naldemedine is taken by mouth daily (0.2 mg) and may cause side effects such as abdominal pain or discomfort, diarrhea, and nausea. In the COMPOSE-1 trial, patients on naldemedine had significantly more spontaneous bowel movements (defined as ≥3 per week) than those on placebo (47.6% vs. 34.6%, P=0.002).

For nausea or vomiting, physicians should consider a prophylactic antiemetic, add or increase non-opioid pain control agents (e.g., acetaminophen as an opioid-sparing drug), and decrease opioid dose by 25% if analgesic is satisfactory.

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**Table 4: Behaviors indicative of opioid misuse**

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Frequency in patients with opioid misuse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requested early refills</td>
<td>47%</td>
</tr>
<tr>
<td>Increased dose on own</td>
<td>39%</td>
</tr>
<tr>
<td>Felt intoxicated from pain medication</td>
<td>35%</td>
</tr>
<tr>
<td>Purposely over sedated oneself</td>
<td>26%</td>
</tr>
<tr>
<td>Used opioids for purpose other than pain</td>
<td>18%</td>
</tr>
</tbody>
</table>

**Figure 5. Risk of overdose rises with daily milligram morphine-equivalent dose.**
Sedation

Sedation is the first warning sign of a patient being at risk for opioid overdose. Take this symptom very seriously. If a patient complains of sedation, determine whether sedation is related to the opioid, eliminate nonessential depressants (such as benzodiazepines or alcohol), reduce dose by 10%-15% if analgesia is satisfactory, add or increase non-opioid or non-sedating adjuvant for additional pain to reduce opioid dose. There is insufficient evidence to recommend opioid rotation as a possible means of reducing sedation. Patients should also be co-prescribed naloxone for opioid overdose reversal.

Fracture

A retrospective cohort study over seven years compared the risk of fracture associated with starting opioids vs. NSAIDs (2,436 older adults initiated on opioids and 4,874 older adults initiated on NSAIDs). Opioids significantly increased the risk of fracture in a dose-dependent fashion. The opioid formulation mattered with much of the risk in the first month after drug initiation for short-acting opioids, though fracture increased for both long- and short-acting opioids over time.

Infection

Opioids may increase risk of infection in older adults. A case-control study of 3,061 older community dwelling adults ages 64-95 years evaluated the association between pneumonia and opioid use. Current prescription opioid users had a 38% increased risk of pneumonia compared with nonusers. The risk was highest for opioid users categorized as being immunosuppressed, such as those with cancer, recent cancer treatment, or chronic kidney disease, or those receiving immunosuppressive medications or medications for HIV.

Myocardial Infarction (MI)

A case-control study assessed the risk of MI among adults on opioids for chronic pain in the UK General Practice Research Database (11,693 cases with up to four matched controls). Current opioid use was associated with a 28% increased risk of MI compared to non-use.

Erectile Dysfunction (ED)

In a cross-sectional analysis of 11,327 men with back pain, 909 (8%) received ED medications or testosterone. Long-term opioid use was associated with 45% greater use of medications for ED or testosterone replacement compared to patients with no opioid use. Men prescribed daily doses of 120 mg morphine or more had a 58% increase in medication for ED or testosterone compared to patients without opioid use, suggesting that dose and duration of opioid use were associated with ED.

Tamper-resistant/abuse-deterrent opioids

One strategy to mitigate the risk of opioid abuse has been the development of “abuse-deterrent” formulations of opioids that make it more difficult to alter for non-oral consumption (e.g., injecting, snorting, or smoking). However, these opioids are more aptly named as “tamper-resistant” formulations instead of “abuse-deterrent” since they are no less potentially addictive than regular opioids when taken by mouth. Tamper-resistant formulations often contain a higher opioid dose than immediate-release preparations. Furthermore, most are extended-release and also considerably more expensive than generic, off-patent opioids. As of this writing, only one immediate-release opioid is available in an abuse deterrent formulation (oxycodone hydrochloride [RoxyBond]).

Patient education

Before prescribing an opioid for pain, clinicians should discuss with patients the risks and benefits of such therapy. An important consideration in framing treatment, and a key message to communicate to patients, is that the goal is not “zero pain” but, rather, a level of analgesia that maximizes a patient’s physical and mental functioning. A multi-modal approach, using both drug and non-drug treatments, should be encouraged.

Here are some suggested topics for discussion with patients:

- Importance of adherence to prescribed dosing regimen
- Patients should use the least amount of medication necessary to treat pain and for the shortest amount of time
- The risk of serious adverse events that can occur when product is used as recommended
- Known risk factors for serious adverse events, including signs and symptoms of overdose and opioid-induced respiratory depression, GI obstruction, and allergic reactions, among others
- The most common side effects (e.g., constipation, sexual dysfunction, respiratory depression), along with the risk of falls, working with heavy machinery, and driving
- When to call the prescriber (e.g., managing adverse events, ongoing pain)
- How to handle missed doses
- The importance of full disclosure of all medications and supplements to all HCPs and the risks associated with the use of alcohol and other opioids/benzodiazepines
- Product-specific concerns, such as not to crush or chew ER products; transdermal systems and buccal films should not be cut, torn, or damaged before use, etc.

- How to safely taper dose to avoid withdrawal symptoms
- Never share any opioid analgesic with another person
- How and when to use naloxone products and their various means of administration
- Seeking emergency medical treatment if an opioid overdose occurs
- How to seek help if an opioid use disorder develops and what treatments options are available if it does
- How to report adverse events and medication errors to FDA (1-800-FDA-1088 or online at: fda.gov/downloads/AboutFDA/ReportsManu-
alForms/Forms/UCM163919.pdf)

In addition, patients should be educated about the safe storage and disposal of opioid medications. Safe use means following clinician instructions about dosing, avoiding potentially dangerous drug interactions (e.g., alcohol), and assuring full understanding of how the medication should be consumed or applied. Remind patients that pain medications are sought after by many people, and, therefore, opioids should be stored in a locked cabinet or, if a locked unit is not available a place that is not obvious or easily accessed by others.

Proper disposal methods should be explained:

- Follow any specific disposal instructions on the prescription drug labeling or patient information that accompanies the medication.
- Do not flush medicines down the sink or toilet unless the prescribing information specifically instructs to do so.
- Return medications to a pharmacy, health center, or other organization with a take-back program.
- Mix the medication with an undesirable substance (e.g., used coffee grounds or kitty litter) and put it in the trash, or use special drug deactivation pouches that your health care provider may recommend.

Managing acute pain

It is now becoming clear that many of the problems and risks associated with managing chronic pain with opioids are also at work in the management of acute pain with opioids. For example, a number of studies demonstrate increased risk of new persistent opioid use in opioid-naïve patients after having been prescribed opioids for acute pain. Although the risk of opioid misuse in patients prescribed opioids for acute post-surgical or post-procedural pain is relatively small (roughly 0.6% per year), the volume of such procedures (approximately 48 million ambulatory surgeries or procedures in 2010) translates into large numbers of patients (i.e., approximately 160,000) who may develop dependence, abuse, or overdose every year.
A central tenet of pain management, whether acute or chronic, is that the goal of treatment is a tolerable level of pain that allows the patient maximum physical and emotional functioning with the lowest risk of side effects, progression to chronic pain, or misuse or abuse. This requires an adroit balancing of patient-related factors (e.g., comorbidities, medical history, risk of abuse) and drug-related factors (e.g., potency, mechanism of action, expected side effects). A commonly-recommended way to achieve this balance is with multimodal analgesia, in which several therapeutic approaches are used, each acting at different sites of the pain pathway, which can reduce dependence on a single medication and may reduce or eliminate the need for opioids and attendant risks/side effects.

Multimodal analgesia (e.g., using drugs from two or more classes, or a drug plus a non-drug treatment) can produce synergistic effects, reduce side effects, or both. One example of multimodal analgesia is the use of both an NSAID and acetaminophen, plus physical approaches (e.g., cold, compression, or elevation) to manage postoperative pain. Demonstrated benefits of multimodal analgesia include earlier ambulation, earlier oral intake, and earlier hospital discharge for postoperative patients, as well as higher levels of participation in activities necessary for recovery (e.g., physical therapy).

Managing patient expectations

Patients in acute pain are understandably worried that the pain will persist or get worse with time. Physicians can reduce such fears and set realistic expectations for treatment effectiveness and healing with clear, compassionate communication couched in terms patients can easily understand. It can be helpful, for example, to share with patients the fact that most forms of acute nociceptive pain (e.g. nonspecific low back pain) are self-limited, subside within weeks, and do not require invasive interventions. (In a systematic review of 15 prospective cohort studies, 82% of people who stopped work due to acute low back pain returned to work within one month.)

A systematic review of 14 controlled trials of patient education interventions for low back pain showed that structured messaging by providers can reassure patients with acute pain more than usual care/control education both in the short and long term. Messaging was significantly more reassuring to patients when delivered by physicians than other primary care practitioners, and such communication reduced the frequency of primary care visits.

Non-pharmacological treatments for acute pain

When possible, non-pharmacologic methods should be used, alone or in combination with analgesics, to manage acute pain. The degree to which this is possible depends on the severity, type, and origin of the pain, but many non-pharmacological approaches can be very effective and their use avoids the potential side effects and risks associated with pharmacological interventions.

Physical methods of pain management can be helpful in all phases of care, including immediately after tissue trauma (e.g., rest, application of cold, compression, elevation) and later in the healing period (e.g., exercises to regain strength and range of motion).

Non-pharmacologic methods can include:
- Application of cold (generally within first 24 hours) or heat
- Compression
- Elevation
- Immobilization
- Relaxation exercises
- Distraction/guided imagery
- Acupuncture
- Massage
- Electroanalgesia (e.g., transcutaneous electrical nerve stimulation)
- Physical therapy
- Yoga

Physical therapy may be useful for a range of musculoskeletal issues and can be helpful in recovering from acute pain-producing traumas initially treated with other methods. A 2018 study reported that patients with low back pain who first consulted a physical therapist were less likely to receive an opioid prescription compared to those who first saw their primary care physician.

Exercise therapy can take many forms, including walking, swimming or in-water exercise, weight training, or use of aerobic or strength-training equipment. According to a review by the Centers for Disease Control and Prevention (CDC), conditions that may improve with exercise therapy include low back pain, neck pain, hip and knee osteoarthritis pain, fibromyalgia, and migraine.

Before moving onto the next section, please complete case study 3 on the next page.

Non-opioid pharmacologic treatments for acute pain

Acetaminophen and NSAIDs

In general, mild-to-moderate acute pain responds well to oral non-opioids (e.g., acetaminophen, non-steroidal anti-inflammatory drugs [NSAIDs], and topical agents). NSAIDs, which include aspirin and other salicylic acid derivatives, and acetaminophen are used in the management of acute pain arising from injury, arthritis, dental procedures, swelling, or surgical procedures. Although they are weaker analgesics than opioids, acetaminophen and NSAIDs do not produce tolerance, physical dependence, or addiction and they do not induce respiratory depression or constipation. Acetaminophen and NSAIDs are often added to an opioid regimen for their opioid-sparing effect. Since non-opioids relieve pain via different mechanisms than opioids, combination therapy can provide improved relief with fewer side effects.

The choice of medication may be driven by patient risk factors for drug-related adverse effects (e.g., NSAIDs increase the rate of gastrointestinal, renal, and cardiovascular events). If acetaminophen or NSAIDs are contraindicated or have not sufficiently eased the patient’s pain or improved function despite maximal or combination therapy, other drug classes (e.g., opioids) are sometimes used.

Non-opioid analgesics are not without risk, particularly in older patients. Potential adverse effects of NSAIDs include gastrointestinal problems (e.g., stomach upset, ulcers, perforation, bleeding, liver dysfunction), bleeding (i.e., antiplatelet effects), kidney dysfunction, hypersensitivity reactions, and cardiovascular concerns, particularly in the elderly. The threshold dose for acetaminophen liver toxicity has not been established; however, the Food and Drug Administration (FDA) recommends that the total adult daily dose not exceed 4,000 mg in patients without liver disease (with a lower ceiling for older adults).

The FDA currently sets a maximum limit of 325 mg of acetaminophen in prescription combination products (e.g., hydrocodone and acetaminophen) in an attempt to limit liver damage and other potential ill effects of these products.

Topical capsaicin and salicylates can both be effective for short term pain relief and generally have fewer side effects than oral analgesics, but their long-term efficacy is not well studied. Topical aspirin, for example, can help reduce pain from acute herpes zoster infection. Topical NSAIDs and lidocaine may also be effective for short-term relief of superficial pain with minimal side effects. Topical agents can be simple and effective for reducing pain associated with wound dressing changes, debridement of leg ulcers, and other sources of superficial pain.

Anticonvulsants

Anticonvulsants, such as gabapentin, pregabalin, oxcarbazepine, and carbamazepine, are often prescribed for chronic neuropathic pain (e.g., post-herpetic neuralgia and diabetic neuropathy) although evidence for efficacy in acute pain conditions is weak. A 2017 trial, for example, randomized 209 patients with sciatica pain to pregabalin 150 mg/day titrated to a maximum of 600 mg/day vs. placebo for 8 weeks.
Case Study 3

Instructions: Review the case below and consider the questions that follow.

Hannah is a 62-year-old woman who has been coping with persistent pain for more than a year since she was involved in a car accident. Her initial severe neck and low back pain was thought to be due to cervical and lumbar sprain/strain. She was prescribed a short-acting opioid, which she said helped with the pain, but led to constipation. After three months of using the opioid, Hannah decided to stop because she did not like the constipation and “brain fog” from the drug. She tried several types of alternative therapies, such as massage and acupuncture, both of which provided short-term relief, although the pain later returned. At 6 months post-accident, X-ray and MRI imaging revealed no obvious spinal pathophysiology, although Hannah reported a sharp, radiating/aching pain spreading to her legs and arms. She describes bilateral pins and needles feeling in her hands. Hannah has a BMI of 31 and has been diagnosed with metabolic syndrome. She is physically inactive but currently takes no medications.

1. Given the subjective nature of pain, how can a clinician more objectively assess the kind of pain reported by patients such as Hannah?

2. Does the lack of obvious pathophysiology on imaging suggest that Hannah is having psychosomatic pain?

3. Would Hannah be a good candidate for an opioid analgesic? Why or why not?

At 8 weeks there was no significant difference in pain between groups (mean leg pain intensity on a 0-10 scale 3.7 with pregabalin vs. 3.1 with placebo, P=0.19).

Potential side effects of anticonvulsants include sedation, dizziness, and peripheral edema. Pregabalin and gabapentin also have some abuse potential in the general population because some users report euphoric effects, and abrupt cessation of anticonvulsants may precipitate withdrawal symptoms.126

Cannabis

As noted above, the evidence base for cannabinoid efficacy on acute pain, is extremely limited and mixed. A small double-blind, cross-over study in 18 females and experimentally-induced mild acute pain found no significant analgesic effect of oral cannabis extract.125 Another randomized, double-blind study with 15 healthy volunteers using smoked cannabis found no analgesic effect with low doses of cannabis, a modest effect with moderate doses, and enhanced pain responses with high doses.125 Much more research is needed before cannabis in any form can be recommended for treatment of acute pain.71

Opioids for acute pain

Reasons for caution

Opioids are commonly prescribed for pain, with nearly two thirds (64%) of the public reporting being prescribed an opioid for pain at some point in their lives.128 However, this approach is not as safe and effective as once thought, and high-dose prescriptions or prolonged use not only increase the risk of misuse, addiction, or overdose, they may actually increase pain and pain sensitivity.123,124

Recent evidence suggests that opioids may not be more effective for moderate to severe pain than non-opioid pain regimens.131,132 A randomized trial of 416 patients with acute extremity pain found no clinically important differences in pain reduction at two hours after single-dose treatment with ibuprofen and acetaminophen vs. three different opioid and acetaminophen combination analgesics.131

Physical dependence can readily occur after use of opioids at a sufficient dose (e.g., 30mg of oxycodone) for just a few days. In addition, side effects of opioid use include constipation, confusion/gait instability, respiratory depression, pruritus, erectile dysfunction, and fractures, all of which may be more problematic in older patients and occur at higher rates than with non-opioid analgesics.

A cross-sectional study compared common side effects experienced during the first week of treatment with opioid analogics vs. non-opioid analogics in patients over age 65 with acute musculoskeletal pain.131 The intensity of six common opioid-related side effects were significantly higher with opioids. (A limitation of this study is that it could not assess severe but less common adverse events associated with NSAIDs and acetaminophen, including the risk for gastrointestinal bleeding, acute kidney injury, and hepatotoxicity.)

In a retrospective study of 12,840 elderly patients with arthritis, opioid use was associated with an increased risk relative to non-opioids for cardiovascular events, fracture, events requiring hospitalization, and all-cause mortality.134

High-intensity prescribing of opioids (high doses or high numbers of pills prescribed) for acute pain is associated with greater likelihood of long-term opioid use.135,136 In a retrospective analysis of a national sample of opioid-naïve Medicare beneficiaries who received emergency treatment from 2008 through 2011, initial exposure to an opioid was a strong predictor of subsequent long-term use.

The risk of prolonged opioid use is particularly high after arthroscopic joint procedures. In a 2019 case-control study of 104,154 opioid-naïve adults, 8,686 (8.3%) developed new prolonged opioid use (continued opioid use between 91 and 180 days after shoulder arthroscopy).137 Subgroups at higher risk for long-term use included women, those with a history of alcohol use disorder, those with a mood disorder, and those with an anxiety disorder.

State policies addressing opioid prescribers

As of October 2018, 33 states have enacted laws regulating the prescription of opioids for acute or chronic pain, with allowed durations of prescriptions for opioid-naïve patients ranging from 5-10 days, and most states limiting prescriptions to ≤ 7 days.103,104 As of this writing no data exist about whether, or to what extent, such laws reduce opioid-related morbidity and mortality, or whether they are associated with unintended outcomes.105

Another way states are attempting to reduce opioid-related harms is by requiring clinicians to check their state’s Prescription Drug Monitoring Program (PDMP) prior to any new opioid prescription. As of January 2018, 41 states have some kind of PDMP mandate, although requirements for when the PDMP must be checked and for which controlled substances, varies by state.106
A 2019 study of PDMP data from Kentucky, Ohio, and West Virginia found that rates of multiple provider episodes, overall opioid prescribing, and overlapping opioid prescriptions all declined after mandatory PDMP laws were enacted.107

**Opioid choices for acute pain**

If an opioid is deemed necessary to treat moderate-to-severe acute pain, the following general principles are recommended:

- Avoid extended-release and long-acting opioids such as methadone, fentanyl patches, and ER/LA versions of opioids such as oxycodone or oxymorphone.
- Avoid co-prescribing opioids with other drugs known to depress central nervous system function (e.g., benzodiazepines).
- Limit the dose and quantity of opioids to address the expected duration and severity of pain (usually less than 7 days).
- Combine opioids with other treatments (e.g., non-pharmacologic options such as exercise or cognitive behavioral therapy, NSAIDs, or acetaminophen).
- Closely monitor patients with impaired hepatic or kidney function if they are prescribed opioids, and adjust the dose or duration accordingly.

Immediate-release agents are strongly preferred because of the higher risk of overdose associated with ER/LA agents. A cohort study of 840,000 opioid-naïve patients over a 10-year span found that unintentional overdose was 5 times more likely in patients prescribed ER/LA agents compared to immediate-release opioids.138

Little high-quality evidence exists to support the choice of any one opioid over another for acute pain. However, some opioids are associated with more adverse events. For example, codeine is not preferred due to differential metabolism to the active ingredient, morphine. It is associated with a risk of both under-treatment in usual doses (due to CYP2D6 mutations) and overtreatment (in ultra-rapid metabolizers of CYP2D6).139

Meperidine is associated with an increased risk of post-operative delirium140 due to its long half-life and its active metabolite, normeperidine, which is a central nervous system stimulant.141

**Opioid dosing for acute pain**

The amount of opioid prescribed should relate to the level of pain expected from the injury or procedure. Injuries or procedures involving bones and joints tend to be more painful than those involving soft tissues.142 Table 5 illustrates the wide range of expected pain and associated recommended opioid doses for some common surgeries or procedures.

Managing chronic non-cancer pain

Management of chronic non-cancer pain begins by establishing individualized treatment goals, exploring non-opioid treatment options, and addressing comorbid depression and anxiety, if present. Pain management goals may include both pain and functional targets, with the understanding that being 100% pain free is not realistic. Functional goals should focus on activities that are meaningful to the patient and attainable based on the severity of the painful condition. Multi-modal approaches that include non-drug and drug interventions are recommended.143

Be aware that comorbid conditions such as depression and anxiety can impact pain management. (In a study of 250 patients with chronic pain and moderate depression, using antidepressant therapy reduced pain levels before analgesic interventions were added.144)

For patients with intractable, moderate-to-severe chronic non-cancer nociceptive pain unresponsive to non-opioid treatment options, a trial of opioids may be indicated guided by the following principles (each detailed below):

- Discuss risks and benefits of opioid use
- Establish a written treatment agreement
- Check or monitor opioid use
- Use caution with dose escalation
- Prescribe naloxone if at risk for overdose
- Screen for opioid misuse or abuse using history and, ideally, a validated questionnaire, as well as urine drug testing
- Taper or discontinue opioids when possible

**Discussing opioid risks and benefits**

Educate patients about the risks and benefits of opioid use prior to initiating opioids and discuss them at each subsequent visit. For many patients, the risks of opioid therapy outweigh the benefits. However, for some patients with nociceptive, or even neuropathic, chronic pain, intermittent use of low-dose opioids on an as-needed basis may be a reasonable approach.

**Establishing a written treatment agreement**

Written documentation of all aspects of a patient’s care, including assessments, informed consent, treatment plans, and provider/patient agreements, are a vital part of opioid prescription “best practices.” Such documentation provides a transparent and enduring record of a clinician’s rationale for a particular treatment and provides a basis for ongoing monitoring and, if needed, modifications of a treatment plan.115

Many computerized systems are now available for the acquisition, storage, integration, and presentation of medical information. Most offer advantages that will benefit both patients and prescribers, such as maintaining up-to-date records, and providing instant availability of information relevant to prescribing or treatment. Although automation can help, clear documentation is not dependent on electronic record-keeping; it merely requires a commitment to creating clear and enduring communication in a systematic fashion. Good documentation can be achieved with the most elaborate electronic medical record systems, with paper and pen, or with dictated notes. Clinicians must decide for themselves how thoroughly, and how frequently, their documentation of a patient’s treatment should be.

**Informed Consent**

Informed consent is a fundamental part of planning for any treatment, but it is particularly important in long-term opioid therapy, given the potential risks of such therapy. At its best, consent also fortifies the clinician/patient relationship.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Number of oxycodone 5 mg tablets (or equivalent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental extraction</td>
<td>0</td>
</tr>
<tr>
<td>Thyroidectomy</td>
<td>5</td>
</tr>
<tr>
<td>Breast biopsy or lumpectomy</td>
<td>5</td>
</tr>
<tr>
<td>Lumpectomy plus sentinel lymph node biopsy</td>
<td>5</td>
</tr>
<tr>
<td>Hernia repair (minor or major)</td>
<td>10</td>
</tr>
<tr>
<td>Sleeve gastrectomy</td>
<td>10</td>
</tr>
<tr>
<td>Prostatectomy</td>
<td>10</td>
</tr>
<tr>
<td>Open cholecystectomy</td>
<td>15</td>
</tr>
<tr>
<td>Cesarean delivery</td>
<td>15</td>
</tr>
<tr>
<td>Hysterectomy (all types)</td>
<td>15</td>
</tr>
<tr>
<td>Cardiac surgery via median sternotomy</td>
<td>15</td>
</tr>
<tr>
<td>Open small bowel resection</td>
<td>20</td>
</tr>
<tr>
<td>Simple mastectomy with or without sentinel lymph node biopsy</td>
<td>20</td>
</tr>
<tr>
<td>Total hip arthroplasty</td>
<td>30</td>
</tr>
<tr>
<td>Total knee arthroplasty</td>
<td>50</td>
</tr>
</tbody>
</table>
Prescribers must be able to answer with confidence four key questions when obtaining informed consent in the context of treatment with opioids:145

1. Does the patient understand the various options for treatment?
2. Has the patient been reasonably informed of the potential benefits and risks associated with each of those options?
3. Is the patient free to choose among those options, free from coercion by the healthcare professional, the patient’s family, or others?
4. Does the patient have the capacity to communicate his or her preferences—verbally or in other ways (e.g., if the patient is deaf or mute)?
5. Is there a proxy available if the patient cannot provide consent due to cognitive impairment?

Documentation related to these key areas can be accomplished by creating a separate paper or electronic informed consent form or by incorporating informed consent language into a larger treatment plan or patient-provider agreement.

Patient-Provider Agreements

A written agreement between a clinician and a patient about the specifics of their pain treatment with opioids can help clarify the plan with the patient, the patient’s family, and other clinicians who may become involved in the patient’s care.115 Such agreements can also reinforce expectations about the appropriate and safe use of opioids. Caution must be exercised, however, to ensure that patient-provider agreements are not used in a coercive way to unethically place patients in the position of having to agree to its terms or else lose an important component of their treatment (or even lose all treatment).145

Although evidence is lacking about the most effective methods to convey the information included in most patient-provider agreements, such agreements have been widely used and are recommended by regulators and many experts on treatment guidelines for long-term opioid therapy.145

The Veterans Administration and U.S. Department of Defense chartered an expert panel to undertake a systematic review of existing medical literature on this subject. In the clinical practice guidelines resulting from that work, the panel concluded that opioid treatment agreements are a standard of care when prescribing long-term opioid therapy.146

Provider/patient agreements have many potential advantages, including:115

- Allowing treatment to start on a note of mutual respect and partnership
- Enhancing transparency
- Engaging patients in a collaborative education and decision-making process
- Helping to set functional goals and clarifying the clinician’s and patient’s roles and responsibilities in attaining these goals

- Documenting acceptance of treatment risks and benefits
- Documenting informed consent
- Helping avoid misunderstandings that may occur over long treatment time periods
- Providing a foundation for subsequent decisions about changes in medications or termination of treatment

Clinicians should strive to craft agreements that serve their patients’ best interests and avoid coercive or punitive language. Thus, agreements should avoid:

- Putting all burden on the patient rather than sharing it between patient and clinician
- Framing the agreement in terms of punishments for possible future crimes or difficulties
- Using language that is stigmatizing, dominating, or pejorative
- Using coercion in any way
- Imposing limitations for the clinician’s convenience without clear and substantial benefit for the patient
- Insisting on behaviors unrelated to actual use of medications
- Using the term “fired” to describe termination of treatment
- Threatening abandonment or suggesting that patients will not have continued access to non-opioid pain relieving treatments if opioids are terminated

To be effective, written agreements must be clearly understood by the patient. This may require the provision of agreements in multiple languages. All agreements should be written at the sixth- to seventh-grade level or even lower.146 Translators may need to be provided for speakers of other languages to ensure patient understanding and effective informed consent. A patient who does not fully understand the potential risks and benefits of a treatment cannot be truly “informed” as required by the legal and ethical guidelines for medical practice. Time must be allowed for patients to ask questions, and for prescribers to ensure patients understand what they are being told. Some, or all, of these tasks may be handled by trained personnel (or staff members) rather than clinicians.

Although the term “agreement” is generally perceived as being more patient-friendly than the word “contract,” clinicians should understand that, from a legal standpoint, any written or oral agreement between a prescriber and a patient may be considered a binding “contract.” Clinicians should ensure that the terms in any agreement are understood by the patient, and are acceptable, attainable, and consistent with high-quality practice.

Creating individualized function-based pain treatment plans

Once a patient has been assessed and accepted as a candidate for chronic opioid therapy, and after informed consent has been obtained for such treatment, a written plan for implementing the treatment should be drafted. Such plans typically include a statement of the goals of therapy. These goals should be written carefully in light of the inherent subjectivity of pain. Since pain itself cannot be measured objectively, framing treatment goals solely in terms of pain relief means that such goals cannot be objectively confirmed.

Although a patient’s subjective pain and suffering are obviously important factors, only the functional impact of the pain can be measured and used to create objective treatment goals. This impact takes many forms, but typically chronic pain erodes foundations of daily life, such as physical activity, concentration, emotional stability, interpersonal relationships, and sleep. This can, in turn, degrade functioning at work or in the home, which can lead to depression, anxiety, insomnia, and even suicide. Clinicians should know that even relatively modest reductions in pain can translate into significant functional improvements as pain rating declines.115 A 20% reduction in a pain score (i.e., roughly two points on the standard 0-10 pain scale) may be acceptable if it produces significant functional benefits for a patient.

Framing treatment goals in terms of improved patient functioning, rather than merely pain relief, offers two primary advantages to clinicians:

- Prescribing decisions (or decisions to terminate treatment) are based on outcomes that can be objectively demonstrated to both clinician and patient (and, possibly, to the patient’s family)
- Individual differences in pain tolerance become secondary to the setting and monitoring of treatment goals, since subjectively perceived levels of pain are not the primary focus in determining functionality.

Basing treatment plans on functional goals is especially valuable in the context of prescribing opioid pain medications, because such goals may help determine whether a patient has an opioid use disorder because patients with OUD often have decreased functioning, while effective pain relief typically improves functioning.

Functional decline itself may result from a range of problems, including inadequate pain relief, non-adherence to a regimen, function-limiting side effects, or untreated affective disorders. Sometimes impaired functioning is the result of OUD, and these objective results may shed valuable light on an otherwise confusing presentation of a patient’s pain symptoms.
Case Study 4

Janet is an 82-year-old Caucasian woman. Her husband died of an ischemic stroke five years ago, and now her son Tim, who lives nearby, looks after her. Janet has had chronic left hip pain ever since a hip fracture repair two years ago developed a serious infection. She comes in to see you with Tim because she is having worsening pain. Although she has always been quick-witted and articulate, in recent years Janet has had memory problems, often pausing in mid-sentence as she searches for a name or word that’s “right on the tip of her tongue.” She views these memory lapses as completely normal, although Tim finds them worrisome. According to Janet, the pain medication she was prescribed (short-acting hydrocodone/acetaminophen) is not enough to quell the pain in her hip (she says both are now hurting). According to Tim, however, Janet often forgets how much medicine she has taken. Tim feels Janet is relying too heavily on the analgesics—he believes strongly that much of Western medicine is misguided, overly invasive, and overly reliant on “pills for everything.” Janet dismisses Tim’s concerns and presses for a long-acting opioid she saw advertised on television.

Instructions: Review the sample controlled substance patient agreement below, then answer the questions on the next page related to the “Janet” scenario above:

SAMPLE PATIENT AGREEMENT:

PATIENT NAME: ____________________________________________

PRIMARY CARE PHYSICIAN/SITE: ____________________________________________

I understand that this agreement between myself, and (insert name of medical office/group) is intended to clarify the manner in which chronic (long-term) controlled substances will be used to manage my chronic pain. Chronic controlled substance therapy for patients who do not suffer from cancer pain is a controversial issue.

I understand that there are side effects to this therapy; these include, but are not limited to, allergic reactions, depression, sedation, decreased mental ability, itching, difficulty in urinating, nausea and vomiting, loss of energy, decreased balance and falling, constipation, decreased sexual desire and function, potential for overdose and death. Care should be taken when operating machinery or driving a car while taking these medications. When controlled substances are used long-term, some particular concerns include the development of physical dependence and addiction. I understand these risks and have had my questions answered by my physician.

I understand that my (insert name of medical group) health care provider will prescribe controlled substances only if the following rules are adhered to:

• All controlled substance prescriptions must be obtained from your (insert name of medical group) primary care provider. If a new condition develops, such as trauma or surgery, then the physician caring for that problem may prescribe opioids for the increase in pain that may be expected. I will notify my primary care physician within 48-hours of my receiving an opioid or any other controlled substance from any other physician or other licensed medical provider. For females only: If I become pregnant while taking this medicine, I will immediately inform my provider and my obstetrician and obtain counseling on risks to the fetus.
• I will submit urine and/or blood on request for testing at any time without prior notification to detect the use of non-prescribed drugs and medications and confirm the use of prescribed ones. I will submit to pill counts without notice as per provider’s request. I will pay any portion of the costs associated with urine and blood testing that is not covered by my insurance.
• All requests for refills must be made by contacting my (insert name of medical group) primary care provider during business hours at least 3-workdays in advance of the anticipated need for the refill. All prescriptions must be filled at the same pharmacy, which is authorized to release a record of my medications to this office upon request. A copy of this agreement will be sent to your pharmacy.
• Pharmacy name/address/telephone: ____________________________________________
• The daily dose may not be changed without my (insert name of medical group) primary care provider’s consent. This includes either increasing or decreasing the daily dose.
• Prescription refills will not be given prior to the planned refill date determined by the dose and quantity prescribed. I will accept generic medications.
• Accidental destruction, loss of medications or prescriptions will not be a reason to refill medications or rewrite prescriptions early. I will safeguard my controlled substance medications from use by family members, children or other unauthorized persons.
• You may be referred to an appropriate specialist to evaluate your physical condition.
• You may be asked to have an evaluation by either a psychiatrist or psychologist to help manage your medication needs.
• If your provider determines that you are not a good candidate to continue with the medication, you may be referred for further evaluation or treatment.
• These medications may be discontinued or adjusted at your provider’s discretion.

I understand that it is my provider’s policy that all appointments must be kept or canceled at least 2-working days in advance. I understand that the original bottle of each prescribed controlled substance medication must be brought to every visit.

I understand that I am responsible for meeting the terms of this agreement and that failure to do so may result in my provider no longer prescribing for me.

Patient’s Signature: ____________________________________________ Date: ________________
Functional treatment goals should be realistic. Progress in restoring function is usually slow and gains are typically incremental. Chronic non-cancer pain is often marked by long-standing physical and psychological deconditioning, and recovery may require reconditioning that may take weeks, months, or years. It is much better to set goals that are slightly too low than slightly too high. Raising goals after a patient has “succeeded” in achieving them is far more motivational and encouraging than lowering goals after a patient has “failed.” Table 6 illustrates some simple functional goals and ways they might be verified.

The responsibility for obtaining evidence of success in meeting a functional goal lies with the patient and should be made explicit in the prescribing agreement. If a patient is unable to document or achieve the progress outlined in a treatment plan, this may suggest a need for goal readjustment.

Components of an Effective Treatment Plan

The creation of an effective function-based treatment plan must be a collaboration between patient and clinician. A patient’s pain score will be just one of many variables to be considered in framing goals. These goals should be realistic, meaningful to the patient, and verifiable. The details of a function-based treatment plan are necessarily specific to the patient, but one way to initiate the process is to begin with the question: “What do you hope to do as a result of treatment that you can’t do now?”

The treatment plan can include a discussion of, and the setting of expectations about, periodic re-assessment of goals. Patients may stabilize at a certain level of function, and the clinician and patient together must decide if this is acceptable or whether changes are needed.

As is the case in drafting other types of patient-provider documents, patients should be reminded of the benefits and risks of a chosen therapy. With opioids, these include the realities of tolerance and physical dependence and the potential need to taper the medication slowly to avoid withdrawal. Patients must also be educated about the possibility that opioids may be either ineffective or have intolerable adverse effects, and that there is also the possibility of problematic use, which could lead to misuse, abuse, or, less commonly, OUD.

Another critical component of any treatment plan is a description of how treatment with an opioid medication might be terminated. Stopping opioid therapy in cases of chronic non-cancer pain is often more difficult than starting it. Being clear about the conditions under which opioid therapy will end is important because opioids are not curative, have no standard duration of treatment, and may be associated with substantial risks.

Termination may be required for many reasons, including:
- Healing or resolution of a specific pathology underlying the pain
- The experience of intolerable side effects
- Lack of adequate response to a medication in terms of either pain relief or functional improvement (called therapeutic failure)
- Evidence of non-medical use of the medication, abuse, inappropriate use, or OUD

If inappropriate use of a prescription medication is discovered, treatment may be suspended, although provisions should be in place for continuation of some kind of pain treatment and/or referral to other professionals or members of a pain management team.

<table>
<thead>
<tr>
<th>Functional Goal</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Begin physical therapy</td>
<td>Letter from physical therapist</td>
</tr>
<tr>
<td>Sleeping in bed as opposed to lounge chair</td>
<td>Report by family member or friend (either in-person or in writing)*</td>
</tr>
<tr>
<td>Participation in pain support group</td>
<td>Letter from group leader</td>
</tr>
<tr>
<td>Increased activities of daily living</td>
<td>Report by family member or friend</td>
</tr>
<tr>
<td>Walk around the block</td>
<td>Pedometer recordings or written log of activity</td>
</tr>
<tr>
<td>Increased social activities</td>
<td>Report by family member or friend</td>
</tr>
<tr>
<td>Resumed sexual relations</td>
<td>Report by partner</td>
</tr>
<tr>
<td>Returned to work</td>
<td>Pay stubs from employer or letter confirming the patient is off of disability leave</td>
</tr>
<tr>
<td>Daily exercise</td>
<td>Gym attendance records or report from family member or friend</td>
</tr>
</tbody>
</table>

* Involving other persons requires explicit permission from the patient, and this permission should be documented.
Some clinicians may be willing and able to continue a regimen of opioid therapy even after the discovery of aberrant behavior if done with intensified monitoring, patient counseling, and careful documentation of all directives. This level of vigilance and risk management, however, may exceed the abilities and resources of the average prescriber. In such cases, referral to a provider with specialized skill or experience in dealing with high-risk patients may be prudent.

The intensity and frequency of monitoring recommended in a treatment plan is dependent on an assessment of the patient’s risk for abuse, diversion, or addiction. Tools and techniques similar or identical to those used during an initial assessment of a patient’s risk can be used to reassess or monitor risk on an ongoing basis.\(^{148}\)

States vary in their requirements for intervals at which follow-up visits are required when controlled substances such as opioid medications are prescribed. Although federal law allows for a 90-day supply of prescriptions for patients receiving schedule II drugs (who are otherwise deemed safe to have this amount), state law can vary from 30 days to 6 months. In cases where state and federal law conflict, the most restrictive rule prevails.\(^{148}\)

**Initiating therapy**

When initiating a trial of opioids, start with immediate-release formulations because their shorter half-life reduces the risk of inadvertent overdose. Prescribe low doses on an intermittent, as-needed basis. For elderly patients who have comorbidities, start at an even lower dose (25-50\% of usual adult dose).

Long-term opioid use often begins with treatment for acute pain, and research shows that opioids are often over-prescribed for acute pain. For example, a study of 1,416 patients in a 6-month period found that surgeons prescribed a mean of 24 pills (standardized to 5 mg oxycodone) but patients reported using a mean of only 8.1 pills (utilization rate 34\%).\(^{142}\) For acute pain, only enough opioids should be prescribed to address the expected duration and severity of pain from an injury or procedure (or to cover pain relief until a follow-up appointment). Several guidelines about opioid prescribing for acute pain from emergency departments\(^{149,150}\) and other settings\(^{151,152}\) have recommended prescribing ≤3 days of opioids in most cases, whereas others have recommended ≤7 days.\(^{151}\) \(γ\) ≤14 days.\(^{154}\) CDC guidelines suggest that for most painful conditions (barring major surgery or trauma) a 3-day supply should be enough, although many factors must be taken into account (for example, some patients might live so far away from a health care facility or pharmacy that somewhat larger supplies might be justified).\(^{38}\)

**Monitoring opioid use**

Follow-up appointments should occur one to four weeks after initiation of opioids or with dose changes; maintenance therapy visits should occur at least every three months. Each visit should include an assessment using a pain and function tool, questions about side effects, evaluation of overdose risk, and discussions about how the medication is being used.\(^{12}\)

Many strategies to monitor opioid use and ensure patient safety have been recommended. However, simply asking patients how they are using the medication, how often they take it, how many pills they take at one time, and what triggers them to take the medication, can identify patients who may be misusing opioids or need changes to their pain management plan. Other ways to objectively monitor opioid use are checking prescription drug monitoring programs, completing urine drug screens, or random pill counts.

Relatively infrequent monitoring may be appropriate for low-risk patients on a stable dose of opioids (i.e., 1-2 times a year). More frequent or intense monitoring is appropriate for patients during the initiation of therapy or if the dose, formulation, or opioid medication is changed. Patients who may need more frequent or intense monitoring (i.e., 4-6 times a year) include:\(^{115}\)

- Those with a prior history of an addictive disorder, past abuse, or other aberrant use
- Those in occupations demanding mental acuity
- Older adults
- Patients with an unstable or dysfunctional social environment
- Those with comorbid psychiatric or medical conditions

It is important to recognize that urine drug testing is expensive and not all insurance companies will pay for frequent testing. Discuss the cost of testing with patients. Also, only order the test that is necessary. It is not necessary to order quantitative testing on patients as this test can be very expensive. For low-risk patients urine drug screening, even done as a point of care test, may be sufficient.

Trust is a necessary part of any patient/prescriber relationship, but studies suggest that in the context of controlled substances, it is unwise to rely on a patient’s word that medications are being consumed as prescribed. Although the use of more objective ways to monitor adherence to medication regimens is an imperfect science, such methods remain an essential component of periodic review. Multiple objective methods to assess adherence exist, but there is no single “best” approach and all such methods have both advantages and potential drawbacks.

Drug testing should be approached in a consensual manner as part of an agreed-upon treatment plan and with the idea that such testing benefits both the patient and the provider. The potential benefits of clinical drug testing include:\(^{115}\)

- Serving as a deterrent to inappropriate use
- Providing objective evidence of abstinence from non-prescribed controlled substances
- Monitoring response to opioid treatment
- Assisting with a diagnosis
- Helping patients allay concerns by family members, employers, or law-enforcement
- Demonstrating to regulatory authorities a clinician’s dedication to monitoring “best practices”

In the context of family practice settings (and even pain specialist settings) unobserved urine collection is usually an acceptable procedure for drug testing. Prescribers, however, should be aware of the many ways in which urine specimens can be adulterated. Specimens should be shaken to determine if soap products have been added, for example. The urine color should be noted on any documentation that accompanies the specimen for evaluation, since unusually colored urine could indicate adulteration. Urine temperature and pH should be measured immediately after collection when possible.\(^{148}\)

One way to reduce the risk of urine test false positives or false negatives is to develop a relationship with a single laboratory, become familiar with its testing tools and threshold values, and use the same screening (presumptive) and confirmatory (definitive) tests regularly to build familiarity with the range of normal results.\(^{148}\) Quantitative testing is not necessary and can not be used to determine if a patient is taking a specific dose of a medication.

Prescribers should be familiar with the metabolites associated with each opioid that may be detected in urine, since the appearance of a metabolite can be misleading (Table 7). A patient prescribed codeine, for example, may test positive for morphine because morphine is a metabolite of codeine. Similar misunderstandings may occur for patients prescribed hydrocodone who appear positive for hydromorphone or oxycodone and oxymorphone.

**Opioid rotation and equianalgesic dosing**

“Opioid rotation” means switching from one opioid to another in order to better balance analgesia and side effects. Rotation may be needed because of a lack of efficacy (often related to tolerance), bothersome or unacceptable side effects, increased dosing that exceeds the recommended limits of the current opioid (e.g., dose limitations of co-compounded acetaminophen), or inability to absorb the medication in its present form (i.e., if there is a change in the patient’s ability to swallow, switch to a formulation that can be absorbed by a different route such as transdermal.)
Because of the large number of variables involved in how any given opioid will affect any given patient, opioid rotation must be approached cautiously, particularly when converting from an immediate-release formulation to an ER/LA product. As noted previously, equianalgesic charts must be used carefully, and titration must be done carefully and with appropriate monitoring. In some cases, because of the risk of potential harm during the time of rotating from one chronic opioid regimen to another, it may be wise to initially use lower doses of an ER/LA opioid than might be suggested by equianalgesic charts, while temporarily liberalizing, as needed, the use of a short-acting opioid. This would then be followed by gradual titration of the LA opioid to the point where the as-needed short-acting opioid is incrementally reduced, until no longer necessary.

Equianalgesic dosing charts help clinicians determine the appropriate starting dose of an opioid when changing routes of administration or when changing from one opioid drug to another. Such charts must be used carefully, however. A high degree of variation has been found across the various charts and online calculator tools, and may account for some overdoses and fatalities. The optimal dose for a specific patient must be determined by careful titration and appropriate monitoring, and clinicians must be mindful that patients may exhibit incomplete cross-tolerance to different types of opioids because of differences in the receptors or receptor sub-types to which different opioids bind. In addition, the patient’s existing level of opioid tolerance must be taken into account. Printed equianalgesic charts are common, and online calculators are also freely available (a common one can be accessed at clinicalc.com/Opioids). The CDC provides a helpful guide to opioid conversions available at: www.cdc.gov/drugoverdose/pdf/calculating_total_daily_dose-a.pdf. Always work with a clinical pharmacist if you do not have a lot of experience with opioid rotation as this can be a risk factor for unintentional opioid overdose.

**How to recognize and intervene upon suspicion or identification of an OUD**

Whenever a clinician considers treating pain with a controlled substance, such as an opioid, risk of misuse or diversion is always a possibility, no matter how remote, and must be assessed. Exactly whom to suspect and when to be proactive in investigating risk factors is an area of great debate. To date, no convincing data exist to support the strategy of focusing on any one specific population or setting—which means that prescribers must be vigilant with all patients. The concept of “universal precautions” has been applied to this approach, which means that any patient in pain could have a drug misuse problem—just as any patient requiring a blood draw for a simple lab test could have HIV. Treating everyone with the same screens, diagnostic tests, and administrative procedures can help remove bias and level the playing field so everyone is treated equally and screened thoroughly.

Nonetheless, it is also true that some patient characteristics are predictive of a potential for drug abuse, misuse, or other aberrant behaviors. The factor that appears to be most strongly predictive in this regard is a personal or family history of alcohol or drug abuse. Some studies have also shown that younger age and the presence of psychiatric conditions are also associated with aberrant drug-related behaviors.

In evaluating patients with chronic pain for risk of addiction or signs that they may be abusing a controlled substance, it may be helpful to consider the sets of characteristics listed in Table 8.

**Table 7: Metabolites of common opioid analgesics**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Metabolites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine</td>
<td>Morphine, Hydrodine, Codeine</td>
</tr>
<tr>
<td>Codeine</td>
<td>Codeine, Morphine, Hydrodine</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>Hydrocodone, Hydrodine, 6-Hydrocodol</td>
</tr>
<tr>
<td>Oxydceone</td>
<td>Oxydceone, Oxymorphine, Hydrodine</td>
</tr>
</tbody>
</table>

Signs of physical dependence include the appearance of an abstinence syndrome with abrupt cessation or diminution of chronic drug administration and is not the same as OUD, a condition where patients lose control of their opioid use or compulsively use opioids. The nature and time of onset of this syndrome vary with drug actions and half-life. Slow tapering of the drug (e.g., 10-15% reduction in dosage per day or every other day) usually avoids the appearance of an abstinence syndrome.

Although not usually encountered in patients without a history of drug abuse, the administration of some drugs (e.g., opioids) may cause OUD. Signs of drug craving and/or drug-seeking behavior (e.g., missed appointments with after-hour calls for prescription renewals; solicitation of prescriptions from multiple physicians; reports of lost, destroyed, or stolen medications; selling and buying drugs off the street) should alert the clinician to such a possibility. It is critical that OUD be diagnosed because it is a serious, but very treatable, condition and failure to treat it will hinder efforts to manage pain.

**Managing Non-Adherent Patients**

Patients who exhibit aberrant drug-related behaviors or non-adherence to an opioid prescription should be monitored more closely than compliant patients. Concern that a patient is non-adherent should prompt a thorough evaluation. The way clinicians interact with patients can affect the relationship (for better or worse) and influence treatment outcomes. A clinician’s negative reactions to non-adherence might include anger at the patient, disappointment and sadness at the apparent betrayal of trust, or fear that the patient’s behavior could expose the provider to legal jeopardy.

Before accusing a patient of not adhering to a prescribed regimen, clinicians should assess the situation fully. Possible reasons for non-adherence include:

- Inadequate pain relief
- Misunderstanding of the specifics of the prescription
- Misunderstandings related to lack of fluency with English

**Table 8: Characteristics of chronic pain patients vs. patients with an OUD**

<table>
<thead>
<tr>
<th>Patient with chronic pain</th>
<th>Patient with an opioid use disorder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medication use is not out of control</td>
<td>Medication use is out of control</td>
</tr>
<tr>
<td>Medication use improves quality of life</td>
<td>Medication use impairs quality of life</td>
</tr>
<tr>
<td>Wants to decrease medication if adverse effects develop</td>
<td>Medication use continues or increases despite adverse effects</td>
</tr>
<tr>
<td>Is concerned about the physical problem being treated with the drug</td>
<td>Unaware of or in denial about any problems that develop as a result of drug treatment</td>
</tr>
<tr>
<td>Follows the practitioner-patient agreement for use of the opioid</td>
<td>Does not follow opioid agreement</td>
</tr>
<tr>
<td>May have left over medication</td>
<td>Does not have leftover medication</td>
</tr>
<tr>
<td></td>
<td>Loses prescriptions</td>
</tr>
<tr>
<td></td>
<td>Always has a story about why more drug is needed</td>
</tr>
</tbody>
</table>
• Attempts to “stretch” a medication in order to save money
• Cultural or familial pressure not to take a medication
• Stigma about taking a pain medication
• Over-medication and fears about addiction
• Misunderstanding of a prescription by a caregiver who has taken responsibility for daily apportioning of medications
• Confusion between two medications that look very similar to each other

The use of patient–provider agreements and/or informed consent documents can help clinicians navigate the uncertainties that can arise in cases of real or apparent non-adherence, and may help make the process less confrontational. Consultation with an addiction medicine specialist or psychiatrist may be necessary if addiction is suspected or if a patient’s behavior becomes so problematic that it jeopardizes the clinician/patient relationship.

**Treatment Termination**

Reasons for discontinuing an opioid analgesic can include the healing of or recovery from an injury; medical procedure, or condition; intolerable side effects; lack of response; or discovery of misuse of medications. Regardless of the reason, termination should be accomplished so as to minimize unpleasant or dangerous withdrawal symptoms by tapering the opioid medication slowly, by carefully changing to a new formulation, or by effectively treating an opioid use disorder if it has developed. Approaches to weaning range from a steady reduction in the amount of medication, to tapering the opioid medication slowly, by carefully changing to a new formulation, or by effectively treating an opioid use disorder if it has developed. Approaches to weaning range from a slow 10% reduction per week to a more aggressive 25 to 50% reduction every few days. In general, a slower taper will produce fewer unpleasant symptoms of withdrawal; however, this may not be the safe course of action for a patient experiencing harmful side effects or who has OUD.

Opioid therapy must be discontinued or re-evaluated whenever the risk of therapy is deemed to outweigh the benefits being provided. A clinician may choose to continue opioid treatment with intensified monitoring, counseling, and careful documentation if it is deemed in the best interest of the patient. This requires, however, careful consideration and a well-documented risk management plan that addresses the greater resources necessary for opioid continuation following evidence of misuse.

If termination of the provider/patient relationship is deemed necessary (though it rarely is), clinicians must ensure that the patient is transferred to the care of another provider and that the patient has adequate medications to avoid unnecessary risk, such as from uncontrolled or unpleasant withdrawal. Practitioners can be held accountable for patient abandonment if medical care is discontinued without justification or adequate provision for subsequent care.

**Caution with dose escalation**

When escalating opioid doses, be aware of two critical daily thresholds—50 and 90 MMED. According to the CDC, doses >50 MMED are associated with more than double the risk of overdose compared to patients on <50 MMED. For patients on >90 MMED, a 9-fold increase in mortality risk was observed compared with the lowest opioid doses. Ninety MMED is considered by several guidelines as a “red flag” dose beyond which careful assessment, more frequent monitoring, and documentation of expected benefits are required (note, however, that this limit doesn’t apply to patients with severe cancer pain or end-of-life pain). The total MMED for all prescribed opioids should be used (MMED is automatically calculated on many state PDMP reports).

**Role of ER/LA opioids and methadone**

ER/LA opioids include methadone, transdermal fentanyl, and extended-release versions of opioids such as oxycodone, oxymorphone, hydrocodone, and morphine. A 2015 study found a higher risk for overdose among patients initiating treatment with ER/LA opioids than among those initiating treatment with immediate-release opioids. As noted above, continuous, time-scheduled use of ER/LA opioids is not more effective or safer than intermittent use of immediate-release opioids, and ER/LA opioids increase risks for opioid misuse or addiction.

The 2016 CDC guidelines suggest that 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. Additional caution is required when prescribing ER/LA opioids in older adults or 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.

When an ER/LA opioid is prescribed in the primary care setting, using an agent with predictable pharmacokinetics and pharmacodynamics is preferred to minimize unintentional overdose risk (i.e., the unusual characteristics of methadone and transdermal fentanyl make safe prescribing of these medications for pain more challenging).

The use of methadone for chronic pain in primary care should generally be avoided because of higher methadone-related risks for QTc prolongation and fatal arrhythmias. Equianalgesic dose ratios are highly variable with methadone, making conversion from other opioids difficult, with attendant increased risk of overdose. While methadone-related death rates decreased 9% from 2014 to 2015 overall, the rate increased in people ≥65 years of age.

If methadone is considered, refer patients to pain management specialists with expertise in using this medication.

**BEFORE MOVING ONTO THE NEXT SECTION, PLEASE COMPLETE CASE STUDY 5.**

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**Case Study 5**

**Instructions: Review the case below and consider the questions that follow.**

1. **What steps might you take before agreeing to a trial of an ER/LA medication for Zeke?**

2. **What specific kind of ER/LA medication might be most appropriate for Zeke if no contraindications were found in the pain and substance abuse assessment?**

3. **Name three specific functional goals that might be used as the basis for a pain management agreement with Zeke.**

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**Zeke is a 25-year-old construction worker who is currently taking workman’s compensation to recover from a compound fracture of his right foot and ankle sustained when a cement block slipped off of a pallet and landed on his foot. The fractures required two surgeries to correct, with the implantation of several internal fixation devices. Zeke was prescribed a short-acting opioid after each surgery, which he has continued to use. He has been regularly attending physical therapy sessions to restore muscle tone in his right leg, but has come into the clinic today seeking an ER/LA opioid. The short-acting medication, he says, is “choppy” and allows his pain to return at the end of each dosing cycle. He says friends have suggested that a long-acting opioid would be easier to use and would provide him more steady pain relief.**
Protecting against opioid-induced adverse events

The Veterans Administration/Department of Defense (VA/DoD) clinical practice guideline outlines a number of evidence-based strategies to reduce opioid-related adverse effects (Table 9). Prophylaxis for constipation—the most common opioid-induced adverse event—has been facilitated by the approval of methylnaltrexone subcutaneous administration and naloxegol oral administration for patients with chronic non-cancer pain. Other, less expensive medications like senna and docusate, are also effective to guard against constipation.

Both male and female patients on long-term opioid therapy are at risk for hypogonadism, thus current guidelines suggest that the endocrine function of all patients should be assessed at the start of long-term opioid therapy and at least annually thereafter. The symptoms of hypogonadism in both genders may include fatigue, mood changes, decreased libido, loss of muscle mass, and osteoporosis. Although there are insufficient data to recommend routine endocrine screening of asymptomatic patients, current guidelines do recommend such testing for patients exhibiting any of the aforementioned signs and symptoms.

Naloxone for opioid overdose

Naloxone (e.g., Narcan) is an opioid antagonist that quickly reverses the effects of opioid overdose. Naloxone is increasingly available to first responders, patients, and friends and family members of those prescribed opioids, and a generic formulation of nasal-spray naloxone was approved by the FDA in April, 2019.

Primary care providers should prescribe naloxone to patients at risk of overdose, including those:
- With renal or hepatic dysfunction
- Taking opioid doses >50 MMED
- Co-prescribed benzodiazepines or other sedating medications
- With a history of overdose or OUD
- Starting treatment for OUD

Many states allow patients, family members, caregivers, and/or friends to request naloxone from their local pharmacist. Anyone receiving naloxone should be taught how to use the device and about the common signs of overdose (slow or shallow breathing, gasping for air, unusual snoring, pale or bluish skin, not waking up or responding, pin point pupils, slow heart rate). A variety of naloxone products are available. The intranasal device with atomizer and intramuscular (IM) shots require the most manipulation in order to administer. Intranasal naloxone and the auto-IM injector are easier to use, but vary greatly in terms of price and insurance coverage.

Depending on the opioid involved in the overdose, more than one dose may be required. All patients who receive naloxone reversal should be taken to an emergency room in case additional doses of naloxone or other medical support is needed.

When to consult a pain specialist or refer

Many acute or chronic pain conditions are relatively straightforward and can be effectively treated by primary care clinicians. But some painful conditions, and some patients, pose considerable complexities, and in such cases clinicians should consider referring the patient to a pain specialist (assuming one is available in the geographic area) or other professionals with expertise in specific areas of need.

Some examples of conditions or patients in which referral may be warranted include:
- Phantom limb pain
- Severe neuropathic pain
- Severe low back and neck pain, or radicular pain the arms or legs
- Intractable headache
- Visceral pain
- Significant joint pain
- Unrelieved chronic pain
- Patients with pain who also have an OUD being treated with medication-assisted therapy
- Patients with mental disorders that interfere with their ability to adhere to and/or comprehend recommended treatments
- Older adults with polypharmacy and/or significant comorbidities for which typical analgesics may be contraindicated
- Patients with end-of-life pain using levels of opioid analgesics that pose a significant risk of severe or fatal respiratory depression

BEFORE MOVING ONTO THE NEXT SECTION, PLEASE COMPLETE CASE STUDY 6 ON THE NEXT PAGE.

| Table 9: Recommendations for preventing or treating opioid-induced side effects |
|-----------------|--------------------------------------------------------------------------------|
| **Constipation** | Methylnaltrexone or naloxegol  
Prophylactic mild peristaltic stimulant (e.g. bisacodyl or senna)  
If no bowel movement for 48 hours, increase dose of bowel stimulant  
If no bowel movement for 72 hours, perform rectal exam  
If not impacted, provide additional therapy (suppository, enema, magnesium citrate, etc.) |
| **Nausea or vomiting** | Consider prophylactic antiemetic therapy  
Add or increase non-opioid pain control agents (e.g. acetaminophen)  
If analgesia is satisfactory, decrease dose by 25%  
Treat based on cause |
| **Sedation** | Determine whether sedation is due to the opioid – if so, lower opioid dose immediately  
Eliminate nonessential CNS depressants (such as benzodiazepines)  
Reduce dose by 20-30%  
Add or increase non-opioid or non-sedating adjuvant for additional pain relief (such as NSAID or acetaminophen) so the opioid can be reduced  
Change opioid  
Prescribe naloxone |
| **Pruritus** | Consider treatment with antihistamines  
Change opioid |
| **Hallucination or dysphoria** | Evaluate underlying cause  
Eliminate nonessential CNS acting medications |
| **Sexual dysfunction** | Reduce dose  
Testosterone replacement therapy may be helpful (for men)  
Erection-enhancing medications (e.g., sildenafil) |
Medically directed opioid tapering

Patients who do not achieve functional goals on stable or increasing opioid doses or those with unacceptable side effects, should have the opioid tapered or discontinued. Patients sometimes resist tapering or discontinuation, fearing increased pain. However, a 2017 systematic review found that dose reduction or discontinuation resulted in reduced pain (eight studies), improved function (five studies) and improved quality of life (three studies). A 2018 retrospective study of 551 veterans with chronic pain (mostly musculoskeletal) assessed pain one year before, and one year after discontinuation of long-term opioids (MMED 75.8 mg). Pain was assessed on a 0-10 scale with higher score indicating worse pain. The mean overall pain score at the time of discontinuation was 4.9, and pain scores dropped during discontinuation by a mean of 0.2 points/month. Patients with moderate pain experienced the greatest reduction in pain after discontinuation.

Recommendations for tapering schedules vary. A 10% decrease weekly is recommended, based on years of opioid use (i.e., 10% decrease monthly for patients using opioids ≥4 years). For patients on high-dose opioids (i.e., ≥90 MMED), taper 10% until patient is taking 30% of the total initial dose, then recalculate 10% taper based on the new total opioid dose to slow taper. The rate of opioid taper should be adjusted based on patient-specific factors such as the severity of withdrawal symptoms.

A structured support program for opioid tapering may improve outcomes. A small trial of 35 patients with long-term opioid use compared a structured intervention including weekly individual counseling sessions vs. standard care and found reduced opioid doses in the intervention group at 34 weeks (mean 100 MMED vs. 138 MMED) although the difference was not statistically significant at 34 weeks. Pain scores decreased in both groups by about one point on a 10-point scale (not significant).

In 2019 the FDA, recognizing the risks associated with abrupt discontinuation of opioid analogesics, required new labeling for opioid analogesics to guide prescribers about safe tapering practices. The key elements include:

- Do not abruptly discontinue opioid analogesics in patients physically dependent on opioids. Counsel patients not to discontinue their opioids without first discussing the need for a gradual tapering regimen.
- A abrupt or inappropriately rapid discontinuation of opioids is associated with serious withdrawal symptoms, uncontrolled pain, and suicide.
- Ensure ongoing care of the patient and mutually agree on an appropriate tapering schedule and follow-up plan.

• In general, taper by an increment of no more than 10-20% every 2-4 weeks.
• Pause taper if the patient experiences significantly increased pain or serious withdrawal symptoms.
• Use a multimodal approach to pain management, including mental health support (if needed).
• Reassess the patient regularly to manage pain and withdrawal symptoms that emerge and assess for suicidality or mood changes.
• Refer patients with complex comorbidities or substance use disorders to a specialist.

Addiction medicine primer

Opioid use disorder (OUD)

OUD is a problematic pattern of opioid use that causes significant impairment or distress. (Note: OUD was previously termed by DSM-IV “opioid abuse,” “opioid dependence,” or “opioid addiction,” but in this learning activity we use OUD because this is the term used in the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5).) As with other chronic diseases, OUD usually involves cycles of relapse and remission.
OUD is a chronic brain disease resulting from the effects on prolonged opioid use on brain structure and function that causes significant negative personal, economic, and social consequences. Rates of OUD diagnoses have increased 4-5 fold in recent years, according to market research and insurance company data. Most people with OUD, or who misuse opioids, obtain the drugs from prescriptions (36.1%) or from friends and relatives (53.1%).

DSM-5 diagnosis of OUD is based on clinical evaluation and determination that a patient has problematic opioid use leading to clinically significant impairment or distress involving at least two of the following within a 12-month period:

- Opioids taken in larger amounts, or for longer periods, than intended
- Persistent desire or unsuccessful attempts to control or reduce use
- Significant time lost obtaining, consuming, and recovering from opioids
- Craving or a strong desire or urge to use opioids
- Failure to complete obligations (i.e., work, home, or school) due to opioids
- Persistent or recurrent social or interpersonal problems due to opioids
- Giving up enjoyable social, work, or recreational activities due to opioids
- Recurrent opioid use in situations in which it is physically hazardous (e.g., driving)
- Continued use despite a physical or psychological problem caused by or worsened by opioid use
- Tolerance (unless opioids are being taken as prescribed)
- Using opioids to prevent withdrawal symptoms (unless opioids are being taken as prescribed)

OUD is not a binary diagnosis, rather it exists as a continuum, with DSM-5 describing 3 levels of severity:

- Mild OUD (2-3 criteria)
- Moderate OUD (4-5 criteria)
- Severe OUD (≥6 criteria)

More than 2 million Americans have OUD, and the number is growing. OUD can be effectively managed with medication-assisted treatment (MAT), but only an estimated 20% of adults with OUD currently receive such treatment.

### Medications to treat OUD

The FDA has approved three medications for treating OUD: buprenorphine, methadone, and extended-release naltrexone (Table 10). Buprenorphine and methadone can reduce opioid cravings and all three can prevent misuse. Each medication has a unique mechanism of action and involve different formulations, methods of induction and maintenance, patterns of administration, and regulatory requirements.

#### Table 10: Available FDA-approved medications for OUD

<table>
<thead>
<tr>
<th>Buprenorphine</th>
<th>Methadone</th>
<th>Naltrexone extended-release injection (Vivitrol)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Buprenorphine/naloxone buccal film (Bunavail)</td>
<td>• Tablets (Dolophine, MethaDose, generics)</td>
<td>• Buprenorphine extended-release subcutaneous injection (Sublocade)</td>
</tr>
<tr>
<td>• Buprenorphine/naloxone sublingual film (Suboxone, generics)</td>
<td>• Oral concentrate (MethaDose, generics)</td>
<td></td>
</tr>
<tr>
<td>• Buprenorphine/naloxone sublingual tablets (Zubsolv, generics)</td>
<td></td>
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<tr>
<td>• Buprenorphine sublingual tablets (generics)</td>
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<tr>
<td>• Buprenorphine subdermal implant (Probuphine)</td>
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<td></td>
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<tr>
<td>• Buprenorphine extended-release subcutaneous injection (Sublocade)</td>
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</tbody>
</table>

**Buprenorphine**

Buprenorphine is a high-affinity partial opioid agonist at the mu-opioid receptor as well as an antagonist of the kappa opioid receptor. Like methadone, buprenorphine can relieve opioid withdrawal symptoms, and, because of its partial agonist effect, it can reduce the rewarding effect of other opioids used simultaneously with buprenorphine. Buprenorphine’s partial agonist status also translates into a lower risk of respiratory depression compared to methadone and other opioids, and a therapeutic dose may be achieved within a few days.

Buprenorphine is available as sublingual tablets, sublingual/buccal films, subdermal implants, or extended-release subcutaneous injection (Table 10). Some film and tablet formulations are combined with the opioid antagonist naloxone to discourage misuse by crushing and injecting the medication. (A buprenorphine-only patch [Butrans] is only FDA-approved as an analgesic.) Some forms of buprenorphine can be self-administered by patients after filling their prescription at regular pharmacies.

In order to prescribe buprenorphine, physicians in the United States must complete an 8-hour training and apply for a waiver (informally called an X-waiver) from the Drug Enforcement Administration (for details see “Obtaining an X-waiver” section below). The Comprehensive Addiction and Recovery Act of 2016 authorized nurse practitioners and physician assistants to be eligible to apply for training and X-waivers, although the associated required training is 24 hours.

As with methadone, buprenorphine sustains opioid tolerance and physical dependence, thus missing doses may precipitate opioid withdrawal. Overdose risk is highest in the first two weeks of methadone treatment, after which risk is significantly lower compared to people who are not in treatment.

Common side effects of methadone are constipation, vomiting, sweating, dizziness, and sedation. Although respiratory depression can be induced by methadone, the FDA advises that methadone not be withheld from patients taking benzodiazepines or other central nervous system depressants because the risk of overdose is even higher among patients not on methadone for OUD. The other potential harms of methadone include hypogonadism, which is a potential side effect of chronic use of any opioid, and QTc segment prolongation.

**Methadone**

Methadone is a synthetic, long-acting opioid agonist that fully activates mu-opioid receptors in the brain. This activity reduces the unpleasant/dysphoric symptoms of opioid withdrawal, and, at therapeutic doses, it blunts the “highs” of shorter-acting opioids such as heroin, codeine, and oxycodone. Patients do not have to experience opioid withdrawal before starting methadone. It may, however, take days to weeks to achieve a therapeutic dose, which requires individualized monitoring in order to minimize cravings and reduce the risk of relapse.

In the United States, outpatient methadone treatment for OUD can only be given to persons enrolled in state- and federally-certified opioid treatment programs/clinics. (Methadone can be provided when patients are admitted to a hospital for treatment of other conditions or in emergencies.) Most patients are required to visit a methadone clinic every day to receive their dose. Eventually, stable patients may receive take-home doses if they meet certain criteria, such as having a stable period of good functioning without illicit drug use. In addition, patients prescribed methadone are usually required to attend regular counseling sessions with clinic providers.

As a full agonist, methadone sustains opioid tolerance and physical dependence, thus missing doses may precipitate opioid withdrawal. Overdose risk is highest in the first two weeks of methadone treatment, after which risk is significantly lower compared to people who are not in treatment.

Common side effects of methadone are constipation, vomiting, sweating, dizziness, and sedation. Although respiratory depression can be induced by methadone, the FDA advises that methadone not be withheld from patients taking benzodiazepines or other central nervous system depressants because the risk of overdose is even higher among patients not on methadone for OUD. The other potential harms of methadone include hypogonadism, which is a potential side effect of chronic use of any opioid, and QTc segment prolongation.

**Naltrexone extended-release injection (Vivitrol)**

Naltrexone extended-release injection (Vivitrol) is a synthetic opioid antagonist that blocks the effects of opioids, including self-administered injectable drug misuse. Naltrexone is FDA-approved for the treatment of opioid use disorder (OUD) after detoxification from opioids, and is not indicated for use as a monotherapy. The drug is administered via an implant, which remains in the body for 6 months. This may help prevent the risk of relapse associated with opioid misuse.

**Opioid Agonists/Antagonists**

- **Buprenorphine**
  - Oral concentrate (MethaDose, generics)
  - Tablets (Dolophine, MethaDose, generics)
  - Buprenorphine/naloxone sublingual film (Bunavail)
  - Buprenorphine/naloxone sublingual tablets (Zubsolv, generics)
  - Buprenorphine sublingual tablets (generics)
  - Buprenorphine subdermal implant (Probuphine)
  - Buprenorphine extended-release subcutaneous injection (Sublocade)

- **Methadone**
  - Tablets (Dolophine, MethaDose, generics)
  - Oral concentrate (MethaDose, generics)

**Naltrexone extended-release injection (Vivitrol)**

- **Naltrexone extended-release injection (Vivitrol)**
  - Naltrexone extended-release injection (Vivitrol)

**Opioid Antagonists/Antagonists**

- **Naltrexone extended-release injection (Vivitrol)**
  - Naltrexone extended-release injection (Vivitrol)

**Opioid Agonists/Antagonists**

- **Buprenorphine**
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**Naltrexone extended-release injection (Vivitrol)**

- **Naltrexone extended-release injection (Vivitrol)**
  - Naltrexone extended-release injection (Vivitrol)
Thus, a patient must be in mild to moderate withdrawal prior to initiation to avoid precipitating withdrawal. The risk of opioid overdose declines immediately when patients with OUD initiate buprenorphine treatment. The risk of hypogonadism is lower with buprenorphine compared to methadone, and buprenorphine is not associated with QTc prolongation or cardiac arrhythmias.

The various non-oral routes of buprenorphine avoid the significant hepatic metabolism inherent with oral administration, and appear to be largely equivalent in their efficacy for maintaining abstinence and reducing risk of overdose. For example, a randomized trial comparing buprenorphine implant to sublingual buprenorphine found higher levels of negative urine screens and abstinence with the implant, but the differences did not reach statistical significance. (Note that use of implantable agents require stabilization on sublingual doses first.)

Extended-release naltrexone

Naltrexone is not an opioid. It is a full antagonist of the mu-opioid receptor, which blocks both the euphoric and analgesic effects of all opioids, including endogenous opioids (i.e., endorphins) and also reduces cravings for opioids. Naltrexone does not cause physical dependence, nor does it produce any of the rewarding effects of opioids. Patients may try to use opioids while on extended-release naltrexone, but it is unlikely that they will experience any of the rewarding effects from such use, unless the binding affinity of naltrexone is overcome. The most common side effects of extended-release naltrexone are injection site pain, nasopharyngitis, insomnia, and toothache.

Treatment initiation requires a 7-10 day period during which the patient is free from all opioids, including methadone and buprenorphine. This is usually achieved with medically-supervised withdrawal followed by at least 4 to 7 days without any opioids (including methadone and buprenorphine). This process is a very significant barrier to naltrexone use.

Naltrexone is currently available both as a once-daily oral tablet and in a once monthly, extended-release depot injection. The oral formulation, however, was found to be no better than placebo in a 2011 Cochrane review of 13 trials with 1,158 participants, and only the extended-release formulation has been approved for OUD by the FDA. Patients may have an increased risk of overdose when they approach the end of the 28-day period of the extended-release formulation.

No special training is required for medical providers to prescribe naltrexone. Although randomized trials in participants without OUD have shown an increased risk for dysphoria and/or depression with naltrexone therapy, a small trial of 80 patients with OUD found no increased risk of depression with daily oral naltrexone compared to continuation of methadone therapy, and depression is not a contraindication to the use of naltrexone.

Comparative efficacy

A 2016 Cochrane review of six trials (n=607) of patients with prescription opioid misuse found no significant differences between methadone and buprenorphine. The mean study duration was 24 weeks, and no significant differences were found for days of unsanctioned opioid use, self-reported opioid use, or positive urine screens for opioid use.

Evidence for the efficacy of medication-assisted treatment (MAT)

Abundant evidence from decades of randomized trials, clinical studies, and meta-analyses suggests that agonist or partial-agonist opioid treatment used for an indefinite period of time is the safest option for treating OUD. (The evidence base for extended-release naltrexone is much less robust.)

As demonstrated by the studies and trials detailed below, people with OUD treated with methadone or buprenorphine are less likely to die, less likely to overdose, and more likely to remain in treatment. MAT is also associated with lower risks for HIV and other infections, and improved social functioning and quality of life compared to people not on MAT.

A small trial in Sweden randomized 40 adults with OUD to daily buprenorphine 16 mg sublingually for one year vs. a six-day taper of buprenorphine followed by placebo. After one year, 75% of patients on buprenorphine remained in treatment and were abstinent vs. 0% in the placebo group, and 20% of those in the placebo group died.

A prospective cohort study following 15,831 patients with OUD treated with buprenorphine for up to 4.5 years showed that the rate of overdose mortality was four times higher in patients who stopped taking buprenorphine (4.6 deaths per 1000 person years, 95% CI 3.9-5.4 deaths per 1000 person years) compared to patients who remained on the medication (1.4 deaths per 1000 person years, 95% CI 1-2 deaths per 1000 person years).

Compelling evidence also comes from population-level studies. Facing rising levels of heroin overdoses in the 1990s, France, in 1996, increased the availability of methadone and buprenorphine by allowing primary care physicians to prescribe both medications without getting additional certifications (both medications were also subsidized by the government).

As illustrated in Figure 6, heroin deaths declined rapidly as use of MAT increased.

Methadone and buprenorphine have also been shown to improve treatment retention. One trial randomized 247 patients to three groups: counseling alone, counseling plus methadone 20 mg/day, or counseling plus methadone 50 mg/day.

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“Buprenorphine treatment provides one of the rare opportunities in primary care to see dramatic clinical improvement: it’s hard to imagine a more satisfying clinical experience than helping a patient escape the cycle of active addiction.”

—Wakeman et al. NEJM 2018;379(1):1-4

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**Naloxone vs. Naltrexone: What’s the difference?**

**Naloxone** (Narcan) is an opioid antagonist given by injection or nasal spray to reverse overdoses. It acts within minutes and lasts for only about an hour due to rapid metabolism.

**Naltrexone** has a very similar chemical structure to Naloxone and is also an opioid antagonist, but it acts more slowly and lasts longer. Extended-release naltrexone is used clinically to block cravings for opioids and other drugs.
Both methadone doses were more effective than counseling alone at 20 weeks (P<0.05 for both comparisons). A trial of buprenorphine/naloxone randomized 329 patients to referral alone, a brief intervention, or buprenorphine and found similarly significant improvements in treatment retention after 30 days.191

Data suggest that MAT is more effective than psychotherapeutic interventions alone, and is just as effective whether psychotherapeutic interventions are used concurrently with medication treatment or not. For example, data from Massachusetts Medicaid beneficiary claims between 2004 and 2010 show significantly lower relapse rates with both buprenorphine and methadone compared to a behavioral health intervention alone.192

Although the evidence base for intramuscular naltrexone is less robust than for methadone or buprenorphine, it has been shown to significantly decrease opioid misuse in patients with mild- to-moderate OUD.167 For example, one trial randomized 250 patients with OUD who completed inpatient detoxification (≥7 days off all opioids) to 24 weeks of naltrexone intramuscular injection (380 mg/month) vs. placebo.193 At follow-up, 90% in the naltrexone group were abstinent compared to 35% in the placebo group.

OUD Management
Following a diagnosis of OUD, a management plan should be created that includes the following components:17

- Assesment for, and treatment of, medical and psychological comorbidities
- Use of motivational interviewing techniques to promote safer behaviors and to encourage patient engagement with treatment
- Education about opioid overdose
- Naloxone prescription
- Education about safer injection drug techniques and sources of sterile needles
- In-person follow-up, regardless of whether the patient was referred for specialty treatment

If a provider cannot prescribe buprenorphine because they do not have an X-waiver, they can still support the patient’s path to recovery by taking the following steps:17

- Assess and treat comorbid conditions.
- Use motivational interviewing techniques to promote safer behaviors and encourage participation in MAT.
- Educate the patient about ways to reduce overdose risk.
- Prescribe naloxone to the patient and/or family members.
- Inform patients who inject drugs about ways to access sterile injecting equipment (if available).
- Refer patient to a treatment center providing MAT.

- Schedule follow-up visits regardless of referral status.
- Naloxone is recommended for anyone who:
  - Is in treatment for OUD
  - Has a history of opioid overdose
  - Is using ≥50 MME/day
  - Is using any opioid and also has COPD, sleep apnea, other respiratory conditions, renal or hepatic dysfunction, or a mental health condition
  - Has a co-prescription for benzodiazepine
  - Has lost tolerance (e.g., recently released from prison or detox program)
  - Is a family member/significant other of person in treatment for OUD

A 2019 study found a significant association between the adoption of state laws providing direct authority to pharmacists to prescribe naloxone and lower rates of fatal overdoses.194 In states with such policies, opioid-related fatal overdoses dropped by 0.387 per 100,000 people ≥3 years after adoption of the laws.

Treatment selection
Medication choice for treatment of OUD is guided by severity of the OUD, patient need for additional psychosocial support and/or monitoring, patient preference, logistical concerns, and patient willingness to undergo full opioid withdrawal (in the case of extended-release naltrexone). Although MAT is sometimes provided along with behavioral or cognitive-behavioral therapy, it is so effective that it should be offered whether or not psychosocial treatment is available.195 The choice of treatment should always be a shared decision between the health care professional.

Treatment with buprenorphine
For providers with an X-waiver, the following steps are recommended upon a diagnosis of OUD:17

- Determine the severity of OUD using DSM-5 criteria.
- Review state prescription drug monitoring program (PDMP).
- Conduct patient history and review of systems.
- Conduct targeted physical exam for signs of opioid withdrawal, intoxication, injection, or other consequences of misuse.
- Order appropriate laboratory tests including urine or oral fluid drug tests, liver function tests, and tests for hepatitis B, hepatitis C, and HIV.

Buprenorphine treatment typically occurs in three phases:

The Induction Phase is the medically monitored initiation of buprenorphine treatment performed at home by a patient, in a physician’s office, or in a certified opioid treatment program. The medication is administered when a person with OUD has not used any opioids for 12 to 24 hours and experiences mild-to-moderate withdrawal symptoms.

The Stabilization Phase begins after a patient is on a stable dose that reduces illicit use, decreases cravings, and minimizes side effects. The buprenorphine dose may need to be adjusted to achieve these goals during this phase.

The Maintenance Phase occurs when a patient is doing well on a steady dose of buprenorphine. The length of time of the maintenance phase is tailored to each patient and guidelines and could be indefinite due to the high risk of relapse (see section below on Tapering Protocols).

Psychosocial treatments
Psychosocial and/or behavioral interventions can be used in combination with medications in order to treat the “whole patient” (e.g., comorbid psychiatric symptoms, social support needs). The National Academy of Sciences, however, notes that psychosocial services may not be available to all patients and recommends that the lack of such supports should not be a barrier to using MAT.197

For example, a 2012 trial randomized 230 adults with OUD to one of three groups: methadone without extra counseling vs. methadone with standard counseling vs. methadone with counseling in the context of smaller case loads.198 At one-year follow-up there were no significant differences between the groups in rates of retention in treatment or urine tests positive for opioids. Three other randomized trials comparing buprenorphine with medical management alone vs. buprenorphine plus cognitive behavioral therapy or extra counseling sessions also found no significant differences in key opioid-related outcomes.199,200

Nonetheless, psychosocial, behavioral, and peer-support interventions may have many profoundly important benefits for patients beyond strictly opioid-related outcomes, such as improving self-confidence, self-advocacy, general quality of life, and improvements in legal, interpersonal, and occupational functioning.167 Some guidelines and authors advocate for the use of psychosocial interventions, but suggest that the lack of such interventions at a given place or time should not be a barrier to the use of MAT.167,200

Tapering protocols
OUD guidelines do not recommend a duration of MAT treatment, which could be for an indefinite period of time because of the high risk of relapse with discontinuation.167 For example, a population-based retrospective study of 14,602 patients who discontinued methadone treatment found that only 13% had successful outcomes (no treatment re-entry, death, or opioid-related hospitalization) within 18 months of taper.201

Nonetheless, some patients may want to stop opioid agonist therapy. An ideal time frame for a trial of MAT tapering has not been established.
Tapering should always be at the patient’s discretion, and all decisions should be based on a thorough dialogue between patient and provider. Goals should be framed functionally, for example maintaining employment, avoiding using illicit opioids or other drugs, continuing with social/emotional support programs, etc.

**Misconceptions about OUD Treatment**

Stigma and misunderstanding surround the issues of addiction in general and OUD in particular. These include counterproductive ideologies that portray addiction as a failure of will or a moral weakness, as opposed to understanding OUD as a chronic disease of the brain requiring medical management, which is no different, in principle, from the approach used to manage other chronic diseases such as diabetes or hypothyroidism. Some stigma and misunderstanding may arise from a lack of awareness of how treatment of OUD has evolved in the past 15 years. Table 11 summarizes some common misconceptions about OUD treatment.

**Addressing stigma**

High levels of stigma persist among some medical professionals and recovery communities toward people with OUD and medications used to treat OUD. A 2016 national opinion survey (n=264) found that 54% of respondents thought people addicted to opioid pain relievers were to blame for their addiction, 46% felt such people are irresponsible, and 45% said they would be unwilling to work closely with such people. A 2014 survey of 1,010 primary care physicians found similar, or even higher, levels of stigma related to people with OUD. Interviews with patients using methadone for OUD confirm that this group experiences high rates of stigma and discrimination related to their medication use in interactions with the public and with health care professionals, which erodes their psychological well-being and may inhibit them from entering treatment. Health care professionals can combat stigma by examining their own attitudes and beliefs and by consciously and consistently using neutral, “person-first,” and non-stigmatizing language (Table 12).

**Pregnancy and OUD**

The prevalence of OUD among pregnant women, while low in absolute terms, quadrupled from 0.15% in 1999 to 0.65% in 2014, with large variability across states. Overdose is one of the leading causes of maternal deaths in the United States, with the rate of overdose lowest in the third trimester (at 3.3/100,000 person-days) and highest 7 to 12 months after delivery (12.3/100,000 person-days). Pregnant women with untreated OUD have up to six times more maternal complications than women without OUD, including low birth weight and fetal distress, while neonatal complications among babies born to mothers with OUD range from neonatal abstinence syndrome compared to neonates of women treated with methadone (other outcomes and adverse events were similar between the two groups).

The safety of extended-release naltrexone has not yet been established for pregnant women, and naltrexone is currently not recommended for the treatment of OUD in pregnant women. Despite this solid evidence base, most pregnant women with OUD do not receive any treatment with medications. Among women who do receive treatment during pregnancy, many fall out of treatment during the post-partum period due to gaps in insurance coverage and other systemic barriers.

<table>
<thead>
<tr>
<th>Table 11: Misconceptions vs. realities of OUD treatment</th>
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</thead>
<tbody>
<tr>
<td><strong>Misconceptions</strong></td>
</tr>
<tr>
<td>Buprenorphine treatment is more dangerous than other chronic disease management.</td>
</tr>
<tr>
<td>Using methadone or buprenorphine is simply a “replacement” addiction.</td>
</tr>
<tr>
<td>Detoxification for OUD is effective.</td>
</tr>
<tr>
<td>Prescribing buprenorphine is time consuming and burdensome.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 12: Alternatives to stigma-reinforcing words and phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Avoid these terms</strong></td>
</tr>
<tr>
<td>Addict, user, drug abuser, junkie</td>
</tr>
<tr>
<td>Addicted baby</td>
</tr>
<tr>
<td>Opioid abuse or opioid dependence</td>
</tr>
<tr>
<td>Problem</td>
</tr>
<tr>
<td>Habit</td>
</tr>
<tr>
<td>Clean or dirty urine test</td>
</tr>
<tr>
<td>Opioid substitution or replacement therapy</td>
</tr>
<tr>
<td>Treatment failure</td>
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<tr>
<td>Being clean</td>
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</tbody>
</table>
An integrated approach with close collaboration between OUD treatment providers and prenatal providers has been described as the “gold standard” for care, and further research is needed to investigate interventions that could help to increase treatment retention.³²³

Treating acute pain in patients on MAT

Some physicians may not prescribe effective opioid analgesia for patients with OUD on MAT due to concerns about respiratory depression, overdose, or drug diversion. As a result, this population is at particular risk of under-treatment for acute pain.

Physicians may also mistakenly assume that acute pain is adequately controlled with the long-term opioid agonist (i.e., methadone) or partial-agonist (i.e., buprenorphine). Although potent analgesics, methadone and buprenorphine have an analgesic duration of action (four to eight hours) that is substantially shorter than their suppression of opioid withdrawal (24 to 48 hours).³²⁴

Non-opioid analgesics (e.g., acetaminophen and NSAIDs) are first-line options for treating acute pain in this population. For moderate-to-severe pain not adequately controlled with non-opioids, however, judicious use of opioid analgesics should be considered. Patients on MAT generally have a high cross-tolerance for analgesia, leading to shorter durations of analgesic effects. Higher opioid doses administered at shorter intervals may thus be necessary. Concomitant opioids can be given for pain to a patient prescribed buprenorphine, but typically hydromorphone or fentanyl may be the most effective due to competitive binding at the opioid receptor.

Since extended-release naltrexone will block the effects of any opioid analgesics, acute pain in such patients (e.g., that associated with dental work, surgery, or traumatic injury) should be treated with regional analgesia, conscious sedation, non-opioid analgesics, or general anesthesia.³

If opioids are deemed necessary for patients on methadone or buprenorphine, clinicians should verify the patient’s methadone or buprenorphine dose, and ensure that naloxone is available. Clinicians should inform the program or prescribing physician about the addition of new opioids, as this may affect subsequent urine screening.

Condition-specific analgesic options

Osteoarthritis

Osteoarthritis (OA) is a common source of pain and disability that affects nearly 70% of those over 65 years of age.³²⁶ The joints involved tend to be the hand, hip, and knee, with knee being most common. More women than men suffer with OA.³²⁶

Non-drug options

Evidence demonstrates that exercise and physical activity can modestly reduce pain and improve function in patients with OA.³²⁷ A recent trial randomized 171 adults aged ≥60 years with knee OA to a 12-week home-based exercise intervention plus health education vs. health education only.²¹⁸ The exercise intervention involved group training sessions plus at-home strength and flexibility exercises to be done 30–40 minutes/day, three days per week. At 12-week follow-up, mean pain scores on the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) dropped 3.06 points in the intervention group vs. 1.46 points in the control group (P=0.007), and stiffness level decreased 1 level vs. no change (P=0.008).

A meta-analysis of 15 randomized trials in patients with musculoskeletal pain found tai chi to be moderately effective in improving both pain and disability at up to 3 months compared to no intervention.²¹⁹ A review of 12 studies (including four RCTs) involving 589 patients with OA symptoms comparing a variety of yoga regimens to usual care found suggestions that pain, stiffness, and swelling were reduced (no meta-analyses were conducted due to clinical heterogeneity). No effect on physical function was observed.²²⁰

A Cochrane review of six randomized trials evaluating acupuncture in 413 patients with hip OA (mean age range 61 to 67 years) found conflicting evidence on its effects on pain and function.²²¹ An unblinded trial randomized 221 adults with hip or knee OA to acupuncture, sham acupuncture, or mock electrical stimulation.²²² After five weeks of treatment no significant differences pain intensity were found for any comparisons.

Acupuncture trials can be particularly susceptible to placebo effects, as illustrated in a study comparing needle or laser acupuncture to no acupuncture or sham laser treatment in 282 patients with chronic knee pain (mean age 63). After 12 weeks of treatments, needle and laser acupuncture reduced self-reported knee pain more than no acupuncture (control) but not more than sham acupuncture, suggesting strong placebo effects. The benefits were not sustained at one year follow up.⁴

NSAIDs

Given the inflammatory mechanism of OA, NSAIDs are the first-line pharmacologic option for managing OA-related chronic pain. In a network meta-analysis of 76 randomized trials evaluating oral celecoxib, ibuprofen, or naproxen vs. placebo in 58,451 patients with knee or hip OA, NSAIDs were associated with small-to-moderate effect sizes for improvements in pain and function.²²³ A 2017 Cochrane review of trials comparing topical NSAIDs vs. placebo in patients with hand or knee OA found moderate evidence for analgesia, with greater pain relief seen in trials of shorter durations.²²⁴

Topical NSAIDs may be as effective as oral NSAIDs for OA pain. A randomized trial of 282 older patients with chronic knee pain comparing oral vs. topical ibuprofen found equivalent reductions in pain.²²⁵

A meta-analysis of six OA trials comparing acetaminophen and NSAIDs found a small, but statistically significant, treatment effect favoring NSAIDs, suggesting that NSAIDs are preferred over acetaminophen unless patients have high risk for gastrointestinal, renal, or cardiovascular adverse effects.²²⁶

Selective noradrenaline reuptake inhibitors (SNRIs)

A meta-analysis of three trials of duloxetine for knee OA showed patients on duloxetine (60 or 120 mg daily) were 49% more likely to have a moderate pain response (≥30% reduction in pain intensity).²²⁷ Physical function improved as well.

Opioids

A Cochrane Review of 22 trials of 8,275 patients using opioids for knee or hip OA found small reductions in pain and improvements in function compared to placebo at follow-up periods <16 weeks.²²⁸ Intermittent, as-needed use is preferred because time-scheduled use can be associated with greater total average daily opioid dosage. As noted earlier, however the SPACE trial, which included 240 patients with moderate to severe chronic low back pain or knee or hip osteoarthritis, found no significant differences in pain-related functioning comparing regimens of morphine, oxycodone, or hydrocodone to non-opioid analgesics (e.g., acetaminophen, NSAIDs, antidepressants, anti-epileptics) at any time points up to 1 year.⁴

Low back pain

Low back pain (LBP) is one of the most common reasons for physician visits in the U.S., and about 25% of U.S. adults reported having LBP lasting at least a day in the past 3 months.²²⁹ Imaging is of limited utility in diagnosing the cause of LBP because most patients have nonspecific findings, and asymptomatic patients often have abnormal findings. Magnetic resonance imaging is recommended for red flag symptoms (for example, incontinence or saddle anesthesia), radicular symptoms, or risks for pathologic fracture.²³⁰

Current guidelines recommend trying nonpharmacological options such as exercise, multidisciplinary rehabilitation, acupuncture, or yoga as first-line treatments for chronic low back pain, followed by pharmacologic treatment with an NSAID.²³¹ If the patient has an inadequate response, second-line options are a tricyclic antidepressant or duloxetine. Opioids, including tramadol, should be reserved for patients with pain unresponsive to all other treatments, with all of the caveats and cautions described previously.

Non-drug options

In a review of 19 RCTs, exercise provided small reductions in pain and improvements in function compared to no exercise.⁵
Types and duration of exercise from RCTs included in the meta-analysis were not specified. Although physical therapy has a role in the management of acute low back pain, no RCTs of physical therapy were identified for chronic low back pain.

Two trials (n = 160 and n = 320) found that tai chi reduced pain versus wait list or no tai chi although these differences may not be clinically important.231,232 The first trial randomized 160 adults with persistent non-specific low back pain to tai chi (18 sessions, 40 minutes each, over a 10-week period) vs. usual care. In addition to reducing pain, tai chi reduced “bothersome” back symptoms by 1.7 points, and improved self-report disability by 2.6 points on the 0-24 Roland-Morris Disability Questionnaire scale (RMDQ).231 A 2017 Cochrane review of 9 RCTs involving 810 participants with chronic low back pain found small to moderate improvements in pain and function associated with yoga compared to no-exercise controls. For pain, a clinically meaningful reduction in pain score based on the RMDQ of 15 points was not achieved.231 (A 2017 systematic review of 14 RCTs by the American College of Physicians came to similar conclusions.)233

A 2017 systematic review of 4 trials evaluating acupuncture vs. sham acupuncture in patients with chronic LBP found modest improvements in pain, but no improvements in function.233 A meta-analysis of 4 trials comparing acupuncture to no acupuncture found larger effect sizes, but the quality of the evidence is lower due to the large placebo effects known to manifest in acupuncture studies without a sham comparison.233

A 2015 Cochrane review of 25 RCTs compared massage vs. inactive (e.g., sham treatment or waitlist) or active (e.g., TENS, acupuncture, traction, physical therapy) controls in 3,096 adults with LBP.234 Massage compared to sham massage or no treatment showed moderate reductions in pain and disability in the short term (<6 months), but not in the long-term. In studies comparing massage to active therapies, massage resulted in greater pain reduction both in the short term, and in the long, but no difference in disability reduction was observed.234

Acetaminophen

A 2016 Cochrane review of 3 trials with 1,825 patients with acute LBP found high-quality evidence that acetaminophen was no more effective than placebo for pain, disability, function, and quality of life.235 Two small trials have evaluated acetaminophen in patients with chronic LBP. A trial conducted in the early 1980s randomized 30 patients to 1000 mg acetaminophen four times daily vs. the NSAID diflunisal 500 mg twice daily for 4 weeks.236 Another trial randomized 45 patients with either acute or chronic LBP to 500 mg acetaminophen vs. amitriptyline 37.5 mg four times daily.237 No significant differences were found between acetaminophen and diflunisal in pain relief or reduced disability, and acetaminophen was less effective than amitriptyline for reducing pain.238

NSAIDs

A review of six RCTs for the American College of Physicians showed that oral NSAIDs are more effective than placebo regarding pain intensity, with a small reduction in pain at 12 weeks.239 No differences in efficacy between different NSAIDs, including non-selective NSAIDs vs. selective COX2 inhibitors, were identified.

Opioids

The risks associated with using opioids for chronic LBP are likely to outweigh potential benefits. A systematic review of RCTs published through November 2016 found that as compared to placebo, opioids provided small short-term pain relief for chronic low-back pain and small improvement in function, but had a higher risk of nausea, vomiting, dizziness, somnolence, constipation, and dry mouth.240 No difference in pain response was observed between immediate release or ER LA opioid products. None of the reviewed trials evaluated the long-term effect (>1 year) of opioids on either pain or function.240

In addition, as noted earlier, the SPACE trial, which included patients with moderate to severe chronic low back pain, found no significant differences in pain-related functioning comparing regimens of morphine, oxycodone, or hydrocodone to non-opioid analgesics (e.g., acetaminophen, NSAIDs, antidepressants, anti-epileptics) at any time points up to 1 year.14

Other therapies

Other drug options such as gabapentin, pregabalin, topical lidocaine, and muscle relaxants have little or no data for use in managing chronic low back pain. For the anticonvulsants pregabalin and gabapentin, a small number of low-quality RCTs failed to show a reduction in pain or improvement in function compared to placebo.241 No data exist to support the use of topical lidocaine for low back pain without a neuropathic component. While widely prescribed, use of skeletal muscle relaxants for chronic LBP is not supported by evidence.240

Diabetic neuropathy

Neuropathy has a lifetime prevalence of 30%-50% in patients with diabetes and most commonly affects the distal extremities in a symmetric fashion causing numbness, tingling, pain, loss of vibratory sensation, and altered proprioception. Improved glucose control may reduce the risk of acquiring diabetic neuropathy and slow its progression,242 and in those who have neuropathy, pain management may improve quality of life.243 Current American Diabetes Association guidelines suggest initial management with pregabalin, duloxetine, or gabapentin.242 Second-line options include TCAs (use cautiously in older adults), venlafaxine, or carbamazepine. Opioids, and particularly tapentadol, are not recommended to treat neuropathy due to their risk for addiction and limited evidence for efficacy.242 Tapentadol is FDA-approved to treat diabetic neuropathy, but the approval was based on two trials that used a design enriched for patients who responded to tapentadol, therefore the results are not generalizable.242 Because tapentadol incurs similar risks of addiction and safety compared to typical opioids, its use is generally not recommended as first- or second-line therapy for neuropathic pain, although it could be considered if other treatments insufficiently control pain.242

Non-drug options

A small RCT of 39 Korean patients with type 2 diabetes and neuropathy found tai chi improved quality of life on five domains, including pain, physical functioning, social functioning, vitality and a mental component score, compared with usual care, but there was no significant difference in neuropathy scores.243 Small studies suggest a possible effect of acupuncture and massage on pain and function. A pilot study of 46 patients found overall symptom improvement from baseline with acupuncture in 77% of patients with 67% discontinuing medication. However, the study didn’t have a control group nor did it specifically identify pain as an endpoint.244 A 4-week trial involving 46 patients who received aromatherapy and massage had reduced pain and improved quality of life compared to usual care.246 A 2014 trial randomized 45 patients to acupuncture vs. sham acupuncture for 10 weeks and found no significant differences in pain outcomes.247 Further studies are required to provide a more clear understanding of the role of acupuncture and massage in managing pain in diabetic neuropathy.

An analysis by the Agency for Healthcare Research and Quality (AHRQ), however, did not find significant or compelling evidence to suggest TENS was more effective than placebo for diabetic neuropathy.248

SNRIs

Both duloxetine and venlafaxine have been shown to reduce pain related to diabetic neuropathy compared to placebo. A network meta-analysis found relatively large effect sizes for pain reduction for duloxetine vs. placebo, and venlafaxine vs. placebo.249 A 12-week study randomized 457 patients with painful diabetic neuropathy to three duloxetine groups (20 mg/day, 60 mg/day, and 120 mg/day) or placebo.250 At follow-up, the mean daily pain severity score in the placebo group had dropped 1.91 points (on a 0-10 scale), with greater reductions in the three duloxetine groups.250

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**Anticonvulsants**

In a meta-analysis of 16 RCTs with 4,017 patients, pregabalin and oxcarbazepine were effective at reducing pain compared with placebo.\(^\text{251}\) Gabapentin is a commonly prescribed off-label to treat diabetic neuropathy. Based on a review of five RCTs with 766 patients, gabapentin had a large overall effect on pain severity, however, the result was not statistically significant.

The American Diabetes Association recommends using pregabalin, reserving gabapentin for patients unable to afford pregabalin. Other anticonvulsants (e.g., carbamazepine, topiramate, valproic acid) lack clear evidence of benefit but have documented harms.\(^\text{252}\)

**Topical lidocaine**

Although lidocaine patches are FDA approved for post-herpetic neuralgia, no RCTs of patches have been conducted in diabetic neuropathy. One open-label, 4-week trial of 300 patients with painful diabetic polyneuropathy or post-herpetic neuralgia evaluated 5% lidocaine medicated plaster vs. pregabalin. In post-herpetic neuralgia more patients responded to 5% lidocaine medicated plaster treatment than to pregabalin (62.2% vs. 46.5% \[no P value reported\]), while response was comparable for patients with painful diabetic polyneuropathy: 66.7% vs. 69.1% \[no P value reported\].\(^\text{253}\)

**Cannabinoids for diabetic neuropathy**

Weak evidence suggests that medical marijuana and cannabinoids may reduce pain related to diabetic neuropathy. A Cochrane review of 16 randomized trials published through November 2017 comparing cannabis-based treatments to placebo in 1,750 adults with chronic neuropathic pain found slight reductions in pain and increased numbers of patients achieving 50% or greater reductions in pain (21% vs. 17\%).\(^\text{18}\) The results, however, are limited by poor trial quality (only 2 trials were judged high-quality) and heterogeneity in treatments (10 trials evaluated an oromucosal spray containing THC or CBD, 2 trials evaluated a synthetic THC, 2 trials evaluated plant-derived THC, and 2 trials evaluate inhaled herbal cannabis). There were no significant differences in the rates of serious adverse events, but more people reported sleepiness, dizziness, or confusion in the cannabis groups. None of the reviewed studies evaluated long-term efficacy and safety of cannabinoid exposure.

**Opioids**

Opioid analgesics are ineffective for treating pain in diabetic neuropathy based on pooled data from four RCTs. This analysis excluded tramadol and tapentadol.\(^\text{254}\) Due to their effect on serotonin and norepinephrine receptors, tramadol and tapentadol may be slightly more effective than other opioids at reducing pain in diabetic neuropathy. An analysis of 5 placebo-controlled RCTs (3 of tapentadol and 2 of tramadol) showed that these opioids were more effective at reducing pain at up to 12-weeks. Both medications, as noted earlier, are associated with all of the risks and adverse events common to typical opioids.

**Fibromyalgia**

Fibromyalgia should be suspected in patients having multifocal pain not fully explained by injury or inflammation. Chronic headaches, sore throats, visceral pain, and sensory hyper-responsiveness are very common. Checking tender points on the body may aid in diagnosing fibromyalgia. These tender points are sometimes confused with trigger points, which are associated with chronic myofascial pain. The primary difference between tender points and trigger points is that trigger points can produce referred pain. Previous guidelines suggested that people with fibromyalgia had pain in at least 11 of these tender points when a doctor applies pressure.\(^\text{254}\) New diagnostic criteria, however, have made a tender point exam unnecessary. Patients are now diagnosed either by physician assessment or by a self-report questionnaire.\(^\text{255}\) A scoring system has replaced the tender point exam and combines a widespread pain index and a symptom severity scale for making the diagnosis.\(^\text{255}\)

**Non-drug options**

Exercise training is often recommended for patients with fibromyalgia,\(^\text{256}\) not only for potential pain reductions, but for the other known physiologic benefits associated with exercise. The effects of exercise in fibromyalgia have been assessed in more than 30 trials, with the overall quality rated as moderate.\(^\text{257}\) Some reviews have concluded that the strongest evidence was in support of aerobic exercise,\(^\text{258}\) which is the current recommendation by the American College of Rheumatology. However, resistance training can be of benefit as well.\(^\text{259}\) A 2017 Cochrane review of eight RCTs (n=456) comparing aerobic exercise training vs. no exercise or another type of intervention found small improvements (relative to comparators) in pain intensity (relative improvement 18%), stiffness (11.4%) and physical function (22%).\(^\text{260}\) A separate Cochrane review of 5 studies with 219 women with fibromyalgia found that moderate-to-high intensity resistance training improves function and reduces pain and tenderness vs. control, and that eight weeks of aerobic exercise was superior to moderate-intensity resistance exercise for reducing pain, although the quality of the evidence was rated as low.\(^\text{261}\)

Tai chi may help reduce pain and other symptoms related to fibromyalgia. One trial randomized 66 patients with fibromyalgia to tai chi twice weekly for 12 weeks vs. wellness education and stretching exercises. Tai chi improved scores on the Fibromyalgia Impact Questionnaire (FIQ) that assessed pain, physical functioning, fatigue, morning stiffness, and on the Medical Outcomes Study 36 Item Short Form Health Survey (SF-36) both at the end of the intervention (12 weeks) and at 24-week follow-up. At 12 weeks, mean between group difference was -18.4 FIQ points \(p<0.001\).\(^\text{262}\)

One in five patients with fibromyalgia try acupuncture within two years of diagnosis,\(^\text{263}\) and low-quality evidence suggests that acupuncture may be associated with reduced fibromyalgia-related pain. A 2013 Cochrane review of 9 RCTs with 395 adults with fibromyalgia found reduced pain and stiffness at 1 month with electro-acupuncture compared to either placebo or sham acupuncture, but there were no significant differences in pain, fatigue, or sleep comparing manual acupuncture to placebo or sham acupuncture (4 trials, 182 adults).\(^\text{264}\)

Based on two small trials, myofascial massage may improve pain over placebo.\(^\text{264}\) Although data recommending other forms of massage for reducing pain are limited, most styles of massage therapy consistently improved quality of life for patients with fibromyalgia. Six RCTs failed to show that TENS reduced pain in fibromyalgia.\(^\text{265}\)

**Drug options**

The FDA has approved three drugs for the treatment of fibromyalgia: duloxetine, milnacipran and pregabalin. Other options used off-label include gabapentin, amitriptyline, and SSRIs.

**Duloxetine**

A 2014 Cochrane review included six RCTs randomizing 2249 adults with fibromyalgia to duloxetine vs. placebo with 12-week to 6-month follow-up.\(^\text{266}\) At 12 and 28 weeks, duloxetine was superior to placebo for pain reduction. Optimum dose is 60-90mg per day.

**Milnacipran**

In a Cochrane meta-analysis of three RCTs evaluating milnacipran 100 mg daily vs. placebo in 1,925 patients with fibromyalgia, milnacipran was more effective for inducing at least 30% reduction in pain.\(^\text{267}\) A similar effect on pain relief was noted with milnacipran 200 mg daily.

An updated (data through August 2017) Cochrane review identified additional 7 trials of duloxetine and 9 of milnacipran.\(^\text{268}\) The updated analysis did not change findings from previous reviews: both drugs were better than placebo in reducing pain by at least 30%. Both drugs were also found to improve health-related quality of life, although more SNRI patients dropped out of trials due to adverse events as compared to placebo.
Pregabalin

A meta-analysis of five RCTs found pregabalin, overall, had a small effect on pain (SMD -0.28, 95% CI -0.35 to -0.20). Low doses (150 mg per day) were no different than placebo, but doses of 300 mg daily or greater were more likely to result in a 50% reduction in pain than placebo (RR 1.45, 95% CI 1.03-2.05). A crossover randomized trial with 41 patients with fibromyalgia found that combining pregabalin with duloxetine more effectively reduced pain (68% reporting at least moderate global pain relief) vs. either pregabalin (39%) or duloxetine (42%) alone (P<0.05 for both comparisons with combination). Optimum dose is 300-450 mg per day.

Gabapentin

Evidence supporting the use of gabapentin for fibromyalgia is limited. A Cochrane review of RCTs lasting 8 weeks or longer (searched through May 2016) identified two trials, one of which was only a conference abstract. The other trial randomized 150 patients with fibromyalgia to gabapentin 1200-2400 mg/day vs. placebo for 12 weeks. Gabapentin was associated with a small reduction in pain (mean difference between groups at 12 weeks: -0.92 points on 0-10 point BPI scale, 95% CI -1.75 to -0.71 points) but this difference may not be clinically important. Optimum dose is 900mg three times daily.

Other options

Opioids

A Cochrane review found no RCTs of opioid therapy in patients with fibromyalgia lasting more than eight weeks. An observational study followed a cohort of fibromyalgia patients initiating either opioids or non-opioid treatments for 12 months and found no difference in pain severity between the groups, with less reduction in BPI interference scores in the opioids group. One RCT suggests that tramadol plus acetaminophen may reduce pain compared to placebo, but the trial duration was limited to 91 days, and long-term evidence is not available.

Cannabinoids

Two small trials have evaluated the oral cannabinoid nabuline (a synthetic form of THC) in patients with fibromyalgia. One trial randomized 46 patients to nabuline 0.5 mg to 1 mg twice daily for 4 weeks vs. placebo and found significant reductions in pain and improvements in anxiety on the Fibromyalgia Impact Questionnaire (P <0.05 for both outcomes). Another trial randomized 31 patients with fibromyalgia and chronic insomnia to nabuline 0.5 mg to 1 mg at bedtime vs. amitriptyline 10-20 mg at bedtime for 4 weeks. Although nabuline was associated with improved sleep quality, no significant effects were reported for pain, mood, or quality of life.

Managing cancer pain

Pain is one of the most common symptoms of cancer. Pain occurs in about 25% of newly-diagnosed cancer patients, about 33% of patients undergoing treatment, and 75% of patients with advanced disease. Pain is also one of the most-feared of cancer symptoms. Unrelied pain denies patients comfort and adversely impacts motivation, mood, interactions with family and friends, and overall quality of life. Survival itself may be positively associated with adequate pain control. In order to relieve cancer pain effectively, clinicians must be skilled in the assessment of cancer pain and be familiar with cancer pain pathogenesis, pain assessment techniques, common barriers to the delivery of appropriate analgesia, and pertinent pharmacologic, anesthetic, neurosurgical, and behavioral approaches to cancer pain treatment. A complete review of cancer pain is beyond the scope of this monograph, but a summary of treatment goals and strategies follows. Thanks to improved treatments, more patients are now surviving their cancers and this should be taken into account before starting certain treatments, such as long-term opioid therapy.

Treatment Goals

Clinical practice guidelines for adult cancer pain of the National Comprehensive Cancer Network recommends the following treatment goals for clinicians to follow:

- A comprehensive pain assessment should be performed for all patients at each contact
- Comprehensive pain management is required since most patients have multiple pathophysiologies
- Analgesic therapy should be administered in conjunction with the management of multiple symptoms and in the context of the complex pharmacologic therapies typical of cancer treatment
- Pain intensity must be quantified by the patient whenever possible
- Reassessment of pain intensity must be performed at specified intervals to ensure that analgesia is effective and adverse effects are minimized
- A multidisciplinary team may be needed for comprehensive pain management
- Psychosocial support must be made available
- Educational materials should be provided to both patient and caregivers
- The multi-dimensional impact of “suffering” on both patients and family must be addressed in a culturally respectful manner

Cancer Pain Management Strategies

Analgesic pharmacotherapy is the mainstay of cancer pain management. Analgesics may be delivered in a 3-step framework known as the “analgesic ladder,” which entails the use of non-opioid analgesics with or without adjuvant analgesics in Step 1; non-opioids plus weak opioids and/or adjuvant analgesics in Step 2; and non-opioids plus strong opioids and/or adjuvant analgesics in Step 3. A trial of systemic opioid therapy can be considered for cancer patients with moderate or severe pain, regardless of the known or suspected pain mechanism. Note that mixed agonist-antagonist opioid analgesics, including butorphanol, nalbuphine, and pentazocine, are not recommended in cancer pain management because they are more likely to cause psychotomimetic effects and they can precipitate the abstinence syndrome if given to a patient who is physically dependent on a pure opioid agonist.

ER/LA opioid formulations may lessen the inconvenience associated with the use of short-acting opioids. Patient-controlled analgesia with subcutaneous administration using an ambulatory infusion device may provide optimal patient control and effective analgesia. The full range of adjuvant medications covered earlier should be considered for patients with cancer pain, with the caveat that such patients are often on already complicated pharmacological regimens, which raises the risk of adverse reactions associated with polypharmacy. If cancer pain occurs in the context of a patient nearing the end of life, other treatment and care considerations may be appropriate.

Physical therapies may improve function or enhance analgesia (including electrical stimulation, heat or cryotherapy, pressure stockings, and pneumatic pump devices). In addition, all patients can benefit from psychological assessment and support. Because bone metastases are a frequent source of pain in patients with cancer, various strategies aimed at improving bone stability may be appropriate. These strategies include: external beam radiotherapy and bisphosphonates. Surgery may relieve symptoms caused by specific problems, such as obstructions, unstable bony structures and compression of neural tissues or draining of symptomatic ascites. The potential benefits of surgical procedures in a cancer patient must be weighed against the risks of surgery, the anticipated length of hospitalization and convalescence, and the predicted duration of benefit.

About 5-15% of cancer patients will need advanced procedures such as epidurals, neurolysis, nerve blocks, and pain pumps. Advanced interventional procedures can be indispensable allies for patients when pain is unrelenting, doesn’t respond to medications, or those medications produce adverse effects that lead to needless suffering.
Managing end-of-life pain

Patient-Centered Treatment Goals

Although pain relief is often considered—and may sometimes be—an end unto itself, pain management and control of symptoms at the end of life may be more appropriately viewed as means of achieving the more primary goal of improving or maintaining a patient’s overall quality of life. The meaning of “quality of life” varies, not just from patient to patient, but even between the phases of an illness experienced by a single patient.

A focus on quality of life is important because sometimes a patient may have priorities that compete with, or supersede, the relief of pain. For example, the end of life can be an extremely important and meaningful time.283 For some patients, mental alertness sufficient to allow maximal interactions with loved ones may be more important than physical comfort. Optimal pain management, in such cases, may mean lower doses of an analgesic and the experience, by the patient, of higher levels of pain. At the end of life, decisions about pain relief must be more than usually balanced with a mindful consideration of the patient’s own values and desires.

Defining clear patient-centered goals of care is a first step to developing an optimal pain management strategy at the end of life. These goals should be guided by four core ethical values that apply broadly, but are particularly important at the end of life:284

- Autonomy of the patient
- Beneficence (the physician’s obligation to promote patient welfare)
- Justice
- Non-malfeasance (avoiding harm)

These four values are embodied in the question at the core of any consideration of an end-of-life intervention: do the expected benefits outweigh the expected burdens from the patient’s perspective?285 This question applies as much to minor interventions such as phlebotomy as to more complex interventions such as chemotherapy or surgery.

Answering this question requires that clinicians understand what a particular patient would consider a “benefit” or a “burden” and what the patient’s goals are. The question also can seldom be answered with absolute certainty since the outcomes, particularly of complex interventions, are inherently difficult to predict. In developing plans of care, therefore, clinicians must engage with the patient (or designated surrogate) to carefully consider the patient’s values, beliefs, and priorities (Table 13). In the end, clinicians can only provide the best information and estimates they can. The patient (or surrogate) must weigh the options and make the decision.

Table 13: Potential patient-centered goals of care

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<th>Goals of Care</th>
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<td>Longer life</td>
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<td>“Dignity” (though meanings will vary)</td>
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Assessing Pain at the End of Life

The end of life is often characterized by a reduced level of consciousness or complete lack of consciousness. This can make assessments of pain very challenging. If a patient is not alert enough to communicate, nonverbal signs or cues must be used to determine if the patient is experiencing pain and to what degree an analgesic approach is effective.

In general, even ambiguous signs of discomfort should usually be treated, although caution must be exercised in interpreting such signs.285 Patients who are actively dying may groan or grunt in ways that suggest they are in pain, although such sounds may, in fact, be the normal expressions attendant to the last moments or hours of life.

Signs of discomfort that are accompanied by more rapid breathing or heart rate should be treated more seriously. Likewise, if physical stimulation of the patient (i.e. during bathing) causes signs of discomfort, increased analgesia may be warranted.

Prolonged rapid breathing (>20/min.) may be uncomfortable because of muscle fatigue and it may therefore be reasonable, even in the absence of other evidence of discomfort, to titrate a pain medication with a target respiratory rate of 15 to 20/minute.285

Treatment Options

Opioids are often valuable for providing effective analgesia at the end of life, and opioid formulations are available in such variety in the U.S. that, typically, a pain regimen can be tailored to each patient. Because there is great between-patient variability in response to particular opioid agents, no specific agent is superior to another as first-line therapy. Although morphine was previously considered the “gold standard,” it is now recognized that the most appropriate agent is the opioid that works for an individual patient.286

Morphine and other opioids are available in a wide range of formulations and routes of administration, including oral, parenteral, and rectal delivery. Both rectal and transdermal routes can be especially valuable at the end of life when the oral route is precluded because of reduced or absent consciousness, difficulty swallowing, or to reduce the chances of nausea and vomiting.286 When selecting an opioid, clinicians should also consider cost, since expensive agents can place undue burden on patients and families.

Some opioids may not be appropriate in the end-of-life setting. For example, meperidine is not recommended in cancer pain management due to the neurotoxic effects of its metabolites.287 Mixed agonist-antagonist opioid analogues, including butorphanol, nalbuphine, and pentazocine, are not recommended in cancer pain management.286

Opioid-related side effects must be considered in advance of treatment and steps must be taken to minimize these effects to the extent possible.288 Since adverse effects contribute significantly to analgesic nonadherence, this is particularly true for constipation and sedation. Tolerance rarely develops to constipation and therefore it must be prevented and, if unsuccessful, treated aggressively.

A stimulant, such as methylphenidate or dextroamphetamine, might be added to offset sedative effects, typically starting at a dose of 5 to 10 mg once or twice daily. One study found that with proper timing, the administration of methylphenidate did not disrupt sleep.289

Other adverse effects, including respiratory depression, are greatly feared and may lead clinicians to under-prescribing and reluctance by patients to take the medication, despite the rarity of this event in persons with cancer.289 Despite this fear, studies have revealed no correlation between opioid dose, timing of opioid administration, and time of death.290

Adjuvant Analgesics

Although opioid medications are central to pain management at the end-of-life, many other classes of medications have proven to be effective and, in some cases, preferable to opioids (Table 14). Some exert a direct analgesic effect mediated by non-opioid receptors centrally or peripherally. Other adjuvant “analgesics” have no direct analgesic qualities but may provide pain relief indirectly by affecting organs or body systems involved in painful sensations.

Corticosteroids can play a valuable role in treating end-of-life pain related to neuropathic pain syndromes, pain associated with stretching of the liver capsule due to metastases, for treating bone pain (due to their anti-inflammatory effects) as well as for relieving malignant intestinal obstruction.291 Dexamethasone produces the least amount of mineralocorticoid effect and is available in a variety of delivery forms, including oral, intravenous, subcutaneous, and epidural.292

Local anesthetics may be useful in preventing procedural pain and in relieving neuropathic pain. Local anesthetics can be given topically, intravenously, subcutaneously, or spinally.
Table 14: Adjutant analgesics of end-of-life pain

<table>
<thead>
<tr>
<th>Drug Class</th>
<th>Agent</th>
<th>Route of Administration</th>
<th>Potential adverse effects</th>
<th>Indications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antidepressants</td>
<td>Nortriptyline</td>
<td>Oral</td>
<td>Anticholinergic effects</td>
<td>Neuropathic pain</td>
</tr>
<tr>
<td></td>
<td>Desipramine</td>
<td>Oral</td>
<td>Cardiac arrhythmia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Venlafaxine</td>
<td>Oral</td>
<td>Nausea, dizziness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Duloxetine</td>
<td>Oral</td>
<td>Nausea</td>
<td></td>
</tr>
<tr>
<td>Anti-epilepsy drugs</td>
<td>Gabapentin</td>
<td>Oral</td>
<td>Dizziness</td>
<td>Neuropathic pain</td>
</tr>
<tr>
<td></td>
<td>Pregabalin</td>
<td>Oral</td>
<td>Dizziness</td>
<td></td>
</tr>
<tr>
<td>Corticosteroids</td>
<td>Dexamethasone</td>
<td>Oral/IV</td>
<td>“Steroid psychosis”</td>
<td>Neuropathic pain, cerebral edema, spinal cord</td>
</tr>
<tr>
<td></td>
<td>Lidocaine</td>
<td>Topical</td>
<td>Erythema (rare)</td>
<td>Neuropathic pain</td>
</tr>
<tr>
<td></td>
<td>Lidocaine</td>
<td>IV</td>
<td>Perioral numbness, cardiac changes</td>
<td>Intractable neuropathic pain</td>
</tr>
<tr>
<td>NMDA antagonists</td>
<td>Ketamine</td>
<td>Oral/IV</td>
<td>Hallucinations</td>
<td>Unrelieved neuropathic pain; need to reduce opioid dose</td>
</tr>
<tr>
<td>Bisphosphonates</td>
<td>Pamidronate</td>
<td>IV</td>
<td>Pain flare, osteonecrosis</td>
<td>Osteolytic bone pain</td>
</tr>
<tr>
<td></td>
<td>Zoledronic acid</td>
<td>IV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cannabinoids</td>
<td>THC (Marinol)</td>
<td>Oral</td>
<td>Dizziness, nausea, tachycardia, euphoria</td>
<td>Nausea, loss of appetite, spasticity, neuropathic pain</td>
</tr>
<tr>
<td></td>
<td>Nabilone (Cesamet)</td>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>THC (Sativex) (note: not available in the U.S.)</td>
<td>Oromucosal spray</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Both gel and patch versions of lidocaine have been shown to reduce the pain of postherpetic neuropathy and cancer-related neuropathic pain. NMDA antagonists (dextromethorphan, amantadine, and ketamine) are believed to exert their analgesic effects by blocking receptors for glutamate and other excitatory amino acids at the level of the spinal cord. Ketamine is the most commonly-used agent, and can be administered in a variety of routes. A general recommendation is to reduce the opioid dose by approximately 25% to 50% when starting ketamine to avoid sedation. Although a Cochrane review found insufficient trials to determine its safety and efficacy in relieving cancer pain, case reports and small studies suggest that intravenous or oral ketamine can be used in adults and children with cancer for the relief of intractable neuropathic pain or to reduce opioid doses.

In recent years there has been a resurgence of interest in the use of cannabinoids for the relief of pain and the end of life. Two oral cannabinoid preparations are FDA-approved and available in the US, and an oromucosal preparation is available in Canada and several European countries. These routes of administration avoid the potential hazards and dosing uncertainties involved with inhaled forms of raw cannabis. Cannabinoids have been shown to exert no appreciable effects on opioid plasma levels and may augment the efficacy of oxycodone and morphine in patients suffering from a variety of chronic pain conditions, potentially allowing a reduction in the opioid doses used in such patients. The authors of a recent review of the role of cannabinoids in hospice and palliative care concluded: “Many patients in a palliative care setting who are currently on long-term opioids for chronic pain could potentially be treated with either cannabis alone or in combination with a lower dose of opioids. From a pharmacological perspective, cannabinoids are considerably safer than opioids and have broad applicability in palliative care.”

Complementary and Alternative Therapies
A wide range of complementary and alternative therapies (CAT) are commonly used in end-of-life care. A 2010 study found that 41.8% of all hospice care providers offered some form of CAT. More than half of providers that offered CAT offered massage, supportive group therapy, music and pet therapy, and guided imagery and relaxation. CAT interventions are aimed at reducing pain, inducing relaxation, and enhancing a sense of control over the pain or the underlying disease. Breathing exercises, relaxation, imagery, hypnosis, and other behavioral therapies are among the modalities shown to be potentially helpful to patients.

Physical modalities such as massage, use of heat or cold, acupuncture, acupressure, and other physical methods may be provided in consultation with physical or occupational therapy. These treatments can enhance patients’ sense of control as well as greatly reduce the family caregivers’ sense of helplessness when they are engaged in pain relief. A 2008 study found that both massage and “simple touch” induced statistically significant improvements in pain, quality of life, and physical and emotional symptom distress over time without increasing analgesic medication use.

Psychosocial interventions for end-of-life pain may include cancer pain education, hypnosis and imagery based methods, and coping skills training. Educational programs are one of the most common interventions to address cancer pain barriers, and current studies provide high-quality evidence that pain education is feasible, cost-effective, and practical in end-of-life settings.

Managing pain in intensive care units
Several studies show that most US adults wish to die at home, and yet more than half of deaths occur in hospitals, most with ICU care. When curative approaches are not expected to be successful, a transition to primary comfort-focused care and the withdrawal of ineffective or burdensome therapies is often necessary. Although guidelines and detailed strategies have been developed for analgesic therapy during the removal of life-sustaining interventions, communication about what to expect and how things may proceed remain paramount to negotiating this care transition. Some patients and families may be able to have meaningful interactions at the end of life, and thus brief interruption of sedatives and analgesics may be reasonable.
Rarely are dying ICU patients able to self-report information about their pain. Thus it is incumbent on the critical care health professionals, perhaps with the assistance of the patient’s family members, to assess pain without self-report input from the patient. Two pain assessment instruments have been validated for use in the ICU setting: the Behavioral Pain Scale and the Critical-Care Pain Observation Tool. Both tools describe specific observations that the patient’s ICU care providers (including family members or loved ones) can make to understand the patient’s experience of pain. This can help guide the pain management plan.

Ethical considerations

A potential barrier to good pain management at the end of life is the misconception on the part of providers, family members, or both, that an escalating use of pain medications or other palliative therapies will unethically hasten or cause death. Although ethical and legal consensus upholds the appropriateness of withdrawing unwanted or unhelpful therapies to avoid the prolongation of the dying process and the administration of medications with the intent of relieving suffering, such concerns may mitigate optimal administration of therapies. When providers administer pain medications and other palliative therapies to a dying patient, the intent should explicitly be on relief of symptoms, and communication with the family must stress this goal, even if the possibility exists that such treatments could hasten death.

Contrary to fears among patient and their families, research suggests that aggressive pain management at the end of life does not necessarily shorten life. In fact, pain management may be life-prolonging by decreasing the systemic effects of uncontrolled pain that can compromise vital organ function.

If a patient experiences intense pain, discomfort or other undesirable states at the end of life despite the best efforts of pain management providers, palliative sedation (also known as terminal, continuous, controlled, or deep-sleep sedation) is an option. Palliative sedation is the intentional sedation of a patient suffering uncontrollable refractory symptoms in the last days of life to the point of almost, or complete, unconsciousness and maintaining sedation until death—but not intentionally causing death. Although palliative sedation may bring intolerable suffering to an end and allow people to die peacefully, it nonetheless can be challenging to put into practice and has been criticized as “slow euthanasia.”

Acknowledging the inherently complex and subjective nature of decisions about palliative sedation, guidelines have nonetheless been developed to help guide responsible use of this alternative. Guidelines suggest that palliative sedation should only be considered when:

- The patient is terminally ill
- Death is expected within hours or days
- The patient is suffering acute symptoms unresponsive to therapy
- Consent is obtained from the patient or his/her proxy
- The withdrawal of food and water is discussed
- Families are informed that the patient will likely not regain consciousness and will die
- Causing death is not the intention even though it may not be possible to achieve adequate symptom control except at the risk of shortening the patient’s life

The degree to which palliative sedation is used, and the manner in which it is used, must, in the end, be a matter of clinical judgment on the part of individual physicians.

Emergency room patients

Pain is a frequent complaint of emergency room (ER) patients, and ER physicians are among the higher prescribers of opioids to patients ages 10-40. ER physicians, however, face considerable challenges in determining a patient’s appropriateness for opioid therapy. A medical history is often lacking, and the physician seldom knows the patient personally. Time constraints, as well, can preclude the kinds of careful assessment and evaluation recommended for responsible opioid prescribing. Because of this, current guidelines from the American College of Emergency Physicians include the following recommendations:

- ER/LA opioid medications should not be prescribed for acute pain
- PDMPs should be used where available to help identify patients at high risk for opioid abuse or diversion
- Opioids should be reserved for more severe pain or pain that doesn’t respond to other analgesics
- If opioids are indicated, the prescription should be for the lowest effective dose and for a limited duration (e.g., <1 week).

Children and adolescents

Chronic pain is estimated to affect 5% to 38% of children and adolescents. These pain conditions can range from congenital diseases (e.g., sickle cell disease), where pain begins in the infant or toddler age period; chronic noncongenital diseases (e.g., juvenile idiopathic arthritis, fibromyalgia, inflammatory bowel disease); or primary chronic pain conditions (e.g., headaches, chronic abdominal pain, chronic musculoskeletal pain).

The origin of pain conditions in the pediatric age group is important because the developing pediatric nervous system can be especially vulnerable to pain sensitization and development of neuroplasticity. Data support the finding that early neonatal and childhood pain experiences can alter pain sensitivity in later life. Poor pain management in children can put them at risk for persistent pain and increased impairment as they transition into adulthood and may even be linked to the development of new chronic pain conditions.

The application of the biopsychosocial model to pediatric pain care is therefore vital. Psychological conditions resulting from chronic disease and pain syndromes can contribute to long-term pain. These psychological conditions can include difficulty coping, anxiety, and depression. Incorporation of parents and family into pain care is especially important in the pediatric population because childhood pain can be affected by family and parental factors, including family functioning and parental anxiety and depression.

Appropriate pain management in childhood is imperative because children’s early pain experiences can shape their response to pain as adults. It is of utmost importance to introduce comprehensive pain care early in the pediatric age group to optimize patients’ quality of life now and in the future.

Older adults

The prevalence of pain among community-dwelling older adults has been estimated between 25% and 50%. The prevalence of pain in nursing homes is even higher. Unfortunately, managing pain in older adults is challenging due to: underreporting of symptoms; presence of multiple medical conditions; polypharmacy; declines in liver and kidney function; problems with communication, mobility, and safety; and cognitive and functional decline in general. Special considerations exist for pain assessment, acute pain management, specific conditions causing persistent pain, medication classes, interventional strategies, and managing addiction in older adults.

Acetaminophen is considered the drug of choice for mild-to-moderate pain in older adults because it lacks the gastrointestinal, bleeding, renal toxicities, and cognitive side-effects that have been observed with NSAIDs in older adults (although acetaminophen may pose a risk of liver damage at high or prolonged doses). Opioids must be used with particular caution, and clinicians should “Start low, go slow” with initial doses and subsequent titration. Clinicians should consult the American Geriatrics Society Updated Beers Criteria for Potentially Inappropriate Medication Use in Older Adults for further information on the many medications that may not be recommended.
The many challenges of pain management in older adults, only sketched here, suggest that early referral and/or consultation with geriatric specialists or pain specialists may be advisable.

Conclusions

Managing pain is particularly challenging in an era when society is grappling with an epidemic of opioid misuse and overdose. This learning activity has reviewed an evidence-based path forward, based on a biopsychosocial model of pain, and an emphasis on holistic assessment, individualized treatment planning, and multi-modal therapeutic approaches.

Physicians and caregivers need to base pain treatment plans on realistic functional goals and the level of pain management needed to reach those goals using a shared decision-making approach. As detailed in this activity, chronic pain syndromes respond differently to available pharmacologic and non-pharmacologic treatments, but, in general, non-drug options (which can be as effective as drug options) should be tried first when possible. When drug options are considered, it is important to maximize non-opioid options before prescribing opioids. For selected patients requiring opioids, the risk of long-term opioid treatment should be minimized through patient education, screening of high-risk patients for OUD, continuous monitoring, use of alternative non-opioid options, and careful tapering when appropriate.

Since much acute pain is self-limiting and remits with healing (typically within a month), helping patients frame expectations about acute pain and pain relief can provide reassurance and reduce fear, worry, and distress. Multimodal approaches should be used to manage acute pain, combining non-drug (e.g. interventional procedures, physical rehabilitation, and psychological support) as well as appropriate drug-based options. Opioid analgesics should be reserved for severe pain that does not respond to all other approaches, and then should be used at the lowest doses, and shortest durations, appropriate for the pain intensity expected with the precipitating event.

More than 2 million people in the United States are estimated to have OUD. Medication-assisted treatment with methadone and buprenorphine works: it alleviates withdrawal symptoms, reduces opioid cravings, increases abstinence, and saves lives. These medications also help people improve their functionality and quality of life, and can allow them to reintegrate with their families, jobs, and communities. Most people with OUD in the United States, however, receive no treatment at all, and only a minority of clinicians have obtained the X-waivers needed to prescribe buprenorphine.

This document has laid out the evidence supporting these conclusions and provides the basis for improved treatment and reduced risk, both for patients and society at large.

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1. Which type of pain is characterized by aberrant signal processing in the peripheral or central nervous system?
   A. Nociceptive pain
   B. Acute pain
   C. Neuropathic pain
   D. Chronic non-cancer pain

2. What term describes the phenomenon of pain being caused by a normally innocuous stimulus such as light touch?
   A. Allodynia
   B. Hyperalgesia
   C. Hypoalgesia
   D. Referred pain

3. What is the likely physiological basis for opioid-induced hyperalgesia?
   A. Upregulation of nociceptive pathways in peripheral and central nervous systems
   B. Downregulation of nociceptive pathways in dorsal horn neurons
   C. Increased release of substance-P in neuronal synapses of peripheral and central nervous system neurons
   D. Disinhibition of neuropathic pain pathways in central nervous system

4. Which statement best summarizes the CDC finding about opioids for chronic pain?
   A. Opioid analgesics should be confined to use in patients with neuropathic, as opposed to nociceptive, pain syndromes
   B. Chronic non-cancer pain can be effectively treated with immediate-release opioid agents, but should not be treated with long-acting or extended-release formulations
   C. No evidence shows a long-term benefit of opioids in pain and function versus no opioids although extensive evidence shows the potential harms of opioids
   D. Evidence supports the use of opioid analgesics for long-term non-cancer chronic pain except in patients with pre-existing substance use disorders

5. Opioid pain medications should not be combined with ________________?
   A. Benzodiazepines
   B. Stimulant medications
   C. SSRI antidepressants
   D. Anti-hypertensive medications

6. Which of the following topics should be routinely covered as part of patient education about opioid analgesics?
   A. Background information about acute vs. chronic pain
   B. Criteria for Opioid Use Disorder
   C. Safe medication disposal
   D. Difference between nociceptive and neuropathic pain

7. Although the absolute risk for inducing opioid misuse or addiction due to prescriptions of opioids for acute pain is low, the large number of such prescriptions means that approximately how many people are at risk each year?
   A. 260,000
   B. 160,000
   C. 60,000
   D. 6,000

8. Non-pharmacologic methods for treating acute pain are appropriate for which phase of healing?
   A. Immediately after tissue trauma
   B. >48 hours after tissue trauma
   C. Late healing phase for recovery of function
   D. Immediately after tissue trauma as well as in late healing phase

9. Long-acting (LA) and extended-release (ER) formulations of opioids should not be used for ________________?
   A. Treating acute pain
   B. Treating cancer pain
   C. Treating end-of-life pain
   D. Treating chronic non-cancer pain

10. What is one suggestion for a way to augment opioid treatment in order to help improve a patient’s pain and function?
    A. Use an every-other-day dosing pattern for the opioid, alternating with an NSAID analgesic
    B. Rotate the route of administration every 6 weeks
    C. Add a long-acting opioid to a prescription for an immediate-release opioid
    D. Try concurrent non-pharmacologic approaches such as exercise or cognitive behavioral therapy

11. Which of the following is an example of a functional goal?
    A. Reduced anxiety about pain
    B. Reduced need for rescue analgesia
    C. Reduced daily dose of opioid analgesic
    D. Walking around the block
12. According to the Centers for Disease Control and Prevention, what amount of opioid analgesic is appropriate for most painful conditions?
   A. 2-day supply
   B. 3-day supply
   C. 5-day supply
   D. 7 day supply

13. Which class of patients might require more frequent or intense monitoring when prescribed an opioid analgesic?
   A. Young adults
   B. Older adults
   C. Female patients
   D. Patients with hypertension

14. Which of the following characteristics is typical of patients who are addicted to a pain medication?
   A. Medication use improves quality of life
   B. Follows practitioner-patient agreement for opioid use
   C. Medication use continues or increases despite adverse effects
   D. Has left-over medication at each visit

15. Most experts agree that opioid dosages should not be increased to _______ without careful justification based on diagnosis and on an individualized assessment of benefits and risks.
   A. ≥50 MMED
   B. ≥60 MMED
   C. ≥80 MMED
   D. ≥90 MMED

16. The availability of naloxone was increased in 2019 by an FDA decision that _______.
   A. Allowed naloxone to be sold over the counter
   B. Approved a generic formulation of nasal-spray naloxone
   C. Allowed registered nurses to prescribe naloxone
   D. Provided government subsidy to increase production of naloxone

17. Which of the following medications is a full mu-receptor agonist used to treat Opioid Use Disorder?
   A. Methadone
   B. Buprenorphine
   C. Extended-release naltrexone
   D. Naloxone

18. Which of the following medications can be self-administered by patients with a medication obtained from a regular pharmacy?
   A. Methadone
   B. Buprenorphine
   C. Extended-release naltrexone
   D. Naloxone

19. For which of the following must clinicians obtain a special waiver from the DEA prior to being able to prescribe the medication?
   A. Methadone
   B. Buprenorphine
   C. Extended-release naltrexone
   D. Naloxone

20. Which of the following is a possible reason for prescribing naloxone to a patient who has been prescribed an opioid analgesic?
   A. The patient is taking a dose of an opioid <50 MMED
   B. The patient has recently been released from prison
   C. The patient has history of hypertension
   D. The patient has a concurrent prescription for an SSRI antidepressant
TARGET AUDIENCE
This course is designed for all physicians (MD/DOs), physician assistants, and nurse practitioners.

COURSE OBJECTIVE
The purpose of this course is to educate physicians with respect to recognizing and managing the unique health care needs of lesbian, gay, bisexual, and transgender (LGBT) persons, with an understanding of the linguistically and culturally appropriate approaches to care for these populations.

LEARNING OBJECTIVES
Completion of this course will better enable the course participant to:
1. Discuss the features of a clinical practice environment respectful of LGBTQ patients
2. Identify key sources of stress related to mental disorders in the lives of transgender patients
3. Describe best practices in managing LGBTQ patients
4. Apply screening and monitoring procedures that are key to providing optimal care for LGBTQ patients
5. Devise care plans based on best practices for adolescent and elderly LGBTQ individuals

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LGBT-related Terminology and Definitions

Concepts of Sex and Gender

To interact productively with LGBT patients, healthcare clinicians should learn to recognize the difference between sexual orientation and sexual behavior as well as the differences among sexual orientation, gender identity, and gender role.

Sexual orientation consists of 3 components: attraction, identity, and behavior. Attraction is the erotic and affectional attraction to another person, including erotic fantasy and erotic activity. Identity is how a person self-defines. Behavior is what people do. Identifying all 3 components of sexual orientation is essential to high-quality care. Heterosexuality is the attraction to persons of the opposite sex; homosexuality, to persons of the same sex; and bisexuality, to both sexes.

Sexual behavior, or sexual activity, differs from sexual orientation and does not define someone as an LGBT individual. Any person may be capable of sexual behavior with a person of the same or opposite sex, but an individual knows his or her longings—erotic and affectional—and which sex is more likely to satisfy those needs.

Sexual identity is the personal and unique way that a person perceives his or her own sexual desires and sexual expressions. Biological sex is the biological distinction between men and women.

Gender and Gender Continuum. Gender has been thought of as a concept of maleness and masculinity or feminality and femininity—a binary choice. Now with the fluidity of gender expression, it is viewed as working on a continuum, neither male nor female. All individuals, in fact, manifest traits traditionally held as representing femaleness and maleness. Women can be assertive, men can be nurturing. Adopting the gender continuum, people can express on a spectrum of traditional femaleness and maleness or be gender-nonconforming (GNC). Individuals who are GNC often select aspects of either of these into their gender identity. Thus, a patient’s gender can be female, male, and gender nonconforming. One’s gender identity is the sense of one-self and does not refer to one’s sexual attraction, behavior, or gender role.

Gender role refers to the behaviors and desires to act in certain ways that are most often viewed as masculine or feminine by a particular culture.

Gender expression is how people manifest their concept of gender. For example, men, based on a social role, may be stigmatized if they wear a skirt. In some cultures (eg, Scottish, Muslim), however, this attire is socially conforming.

Disorders of sexual development (DSD) is the comprehensive term for any congenital condition that is associated with atypical development of gonadal, chromosomal, or anatomic sex. DSDs are rare and complex. This term replaces previously used terms such as intersex, hermaphrodite, or pseudohermaphrodite.

Transgender individuals’ gender identity differs from their biologic sex or from what they were designated at birth. The prefixes “cis” and “trans” refer to synchronicity of biologic sex with identity. Therefore, a cis-woman is one born anatomically as a woman who identifies as such, whereas a trans-woman is born as a biologic man but identifies as a woman. In common usage, transgender usually refers to people in the transsexual group that may include people who are contemplating or preparing for sexual reassignment surgery—called preoperative—or who have undergone sexual assignment surgery—called postoperative. A transgender person may be sexually attracted to males, females, or both.

Definitions of Terms and Acronyms

As with many other populations, there are terms and definitions that are specific to LGBT communities. Becoming aware of these terms is important in promoting cultural competence among healthcare clinicians. Although the following glossary is not exhaustive, it provides an overview of terms and definitions regarding sexual orientation, gender identity, gender expression, and other issues that people use to self-identify. When addressing LGBT individuals, clinicians should always ask clients how they identify or wish to be addressed. Of course, language is dynamic and evolves over time, and, therefore, terms and definitions can vary based on a number of factors, including geographic region, race/ethnicity, and socioeconomic status, among others.

Asexual (adj.)—Describes a person who experiences little or no sexual attraction to others. Asexuality is not the same as celibacy.

Assigned sex at birth (noun)—The sex (male or female) assigned to a child at birth, most often based on the child’s external anatomy; also referred to as birth sex, natal sex, biological sex, or sex.

Bisexual (adj.)—A sexual orientation that describes a person who is emotionally and sexually attracted to people of the same gender and people of other genders.

Cisgender (adj.)—A person whose gender identity and assigned anatomic sex at birth correspond—ie, a person who is not transgender.

Coming out (noun)—The process by which one accepts and/or comes to identify one’s own sexual orientation or gender identity (to come out oneself); also the process by which one shares one’s sexual orientation or gender identity with others, eg, family members, friends, and others.

Drag (noun)—a type of theatrical entertainment where a performance is delivered by someone, often of the opposite sex or gender-nonconforming, who presents as hyper-feminine or with features of exaggerated gender role or behavior. Although seen by artists of all sexualities, it most often appears with gay men. Performers are called drag queens or drag kings, based on gender role exaggeration.

Gay (adj.)—A sexual orientation that describes a person who is emotionally and sexually attracted to people of their own gender and/or identities as such. It can be used regardless of gender identity but is more commonly used to describe men.

Gender dysphoria (noun)—Distress experienced by some individuals whose gender identity does not correspond with their assigned sex at birth. It manifests as clinically significant distress or impairment in social, occupational, or other important areas of functioning. The American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders (DSM-5) includes gender dysphoria as a diagnosis.

Gender fluid (adj.)—Describes a person whose gender identity is not fixed. A person who is gender fluid may always feel like a mix of the 2 traditional genders, but may feel more one gender some days, and another gender other days.

Gender nonconforming (adj.)—Describes a gender expression that differs from a given society’s norms for males and females.

Genderqueer (adj.)—Describes a person whose gender identity falls outside the traditional gender binary. Other terms for people whose gender identity falls outside the traditional gender binary include gender-nonconforming, gender-variant, gender expansive, and so forth; sometimes written as 2 words: gender queer.

Homophobia (noun)—a wide range of negative reactions and attitudes regarding lesbians or gay people (or those perceived to be such). These emotions include fear, aversion, or hatred and can result in discrimination, persecution, or hate crimes.

Intersex (noun)—Group of rare conditions in which the reproductive organs and genitals do not develop as expected. Some prefer to use the term disorders (or differences) of sex development.
Intersex is also used as an identity term by some community members and advocacy groups.

**Lesbian (adj., noun)**—A sexual orientation that describes a woman who is emotionally and sexually attracted to other women. Orientation is different from behavior, and some women who identify as lesbians have or have had sex with men, which can affect their health risks.

**Men who have sex with men/women who have sex with women (MSM/WSW) (noun)**—A sex/gender behavioral term that is often used in research and public health settings to describe people who engage in same-sex behavior, regardless of attraction or self-identity. These terms are rarely used by individuals when they self-identify.

**Minority stress (noun)**—Chronic stress faced by members of stigmatized minority groups. Minority stress is caused by external, objective events and conditions, expectations of such events, the internalization of societal attitudes, or concealment of one’s sexual orientation.

**Nonbinary (adj.)**—Describes a person whose gender identity falls outside the traditional gender binary structure.

**Personal pronouns.** Traditional personal pronouns are based on a binary she/he framework. An inclusive approach to addressing both gender-nonconforming and transgender patients is the use of personal pronouns that are not binary. An optimal approach is to first provide your own personal pronouns and then ask patients how they would like to be called. For transgender patients, this may include pronouns such as they or “ze,” which is often the preferred nongendered pronoun.

**Queer (adj.)** is both a category and a self-identification term. It is an umbrella term used by some to describe people who think of their sexual orientation or gender identity as outside societal norms. Some people view the term queer as more fluid and inclusive than traditional categories for sexual orientation and gender identity. Due to its history as a derogatory term, the term queer is not embraced or used by all members of the LGBT community. Younger LGBT individuals may embrace this term when referencing themselves as a sign of advocacy and self-empowerment. It is not a term that should be used without a patient’s prior endorsement.

**Questioning (adj.)**—Describes individuals who are unsure about or is exploring their own sexual orientation and/or gender identity. Many people go through a stage of questioning during their lives, sometimes several times. This can be because they learn new terms that fit them better, or it can be that their actual feelings of gender or attraction change over time.

**Sexual orientation (noun)**—Includes individuals’ emotional and sexual attraction to others, their sexual and gender identity, and their behavior and gender expression. Clinicians need to be able to acquire this inform on a regular basis, as relationships can change. This information allows better understanding of patients, their social constructs, and support and health risk assessment.

**Top vs Bottom (nouns)**—These are often used casual terms that define a type of sexual behavior. Anal sex between insertive (ie, penis inserted into anus) or receptive (anus receives penis), Men who prefer insertive are referred to as “tops,” with those who prefer receptive referred to as “bottoms.” Receptive anal sex has the highest risk for HIV acquisition—13 times greater than insertive.

**Trans man/transgender man/female-to-male (FTM) (noun)**—Transgender persons whose gender identity is male, born biologically female, may use these terms to describe themselves; some will just use the term man.

**Trans woman/transgender woman/male-to-female (MTF) (noun)**—Transgender persons whose gender identity is female, born biologically male, may use these terms to describe themselves; some will just use the term woman.

**Transgender (adj.)**—Describes a person whose gender identity and assigned (anatomic) sex at birth do not correspond. Sometimes abbreviated as trans.

**Transition (noun)**—For transgender people, this refers to the process of coming to recognize, accept, and express one’s gender identity. Most often, this refers to the period when a person makes social, legal, and/or medical changes, such as changing their clothing, name, sex designation, and using medical interventions; sometimes referred to as gender affirmation process.

**Transphobia (noun)**—The fear of, discrimination against, or hatred of transgender or gender nonconforming people or those who are perceived as such.

**Transsexual (adj.)**—Sometimes used in medical literature or by some transgender people to describe those who have transitioned through medical interventions.

**Two-spirit (adj.)**—A contemporary term that connects today’s experiences of LGBT Native American and American Indian people with the traditions of their cultures. The term refers to a tradition common to several tribes, in which some individuals manifested a balance of both feminine and masculine energies, making them inherently sacred people. (See Table 1)

### Table 1: Outdated Terms to Avoid

<table>
<thead>
<tr>
<th>Preferred Term</th>
<th>Older Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexual Orientation</td>
<td>Sexual preference</td>
</tr>
<tr>
<td>Two-spirit</td>
<td>Berdache</td>
</tr>
<tr>
<td>Disorders of sex development</td>
<td>Intersex/hermaphrodite</td>
</tr>
<tr>
<td>Gay or lesbian</td>
<td>Homosexual</td>
</tr>
<tr>
<td>Transgender</td>
<td>Transgendered/a transgender/tranny</td>
</tr>
<tr>
<td>Gender affirmation surgery</td>
<td>Sex change</td>
</tr>
</tbody>
</table>

**About Acronyms**

- Many acronyms are used in the LGBT community. The National LGBT Education Center uses LGBT: lesbian, gay, bisexual, transgender and LGBTQ (lesbian, gay, bisexual, transgender, queer) when discussing adolescents or youth.
- Other acronyms may use any combination of the following: LGBTQQAAP2S: lesbian, gay, bisexual, transgender, queer, questioning, intersex, asexual, ally, pansexual, two-spirit.
Some may choose to use the acronym LGBTQ+, with the plus sign representing the ever-growing list of terms people use to describe their sexual orientation or gender identity. There are many different variations of the LGBTQ+ acronym, and the + acknowledges that it is not possible to list every term people currently use.

**LGBT Demographics**

The US Census Bureau does not specifically collect data on gay, lesbian, bisexual, or transgender (LGBT) persons. At this time, the most useful information about these populations is gathered by independent polling and survey organizations, which have conducted several studies to try to develop as accurate a picture as possible of LGBT demographics.

According to a 2017 Gallup report—based on interviews with a random sample of >1.6 million US adults—the portion of American adults identifying as LGBT increased to 4.1% in 2016 from 3.5% in 2012; these figures imply that more than an estimated 10 million adults now identify as LGBT.

Key findings of the report include:

- **Millennials**—people born between 1980 and 1999—are more than twice as likely as any other generation to identify as LGBT and account for 58% of LGBT-identified adults.
- **Racial/ethnic groups**
  - LGBT identification among women was 4.4% compared with 3.7% among men.
  - LGBT: white, 3.6%; African American, 4.6%; Hispanic, 5.4%; Asian, 4.9%; other, 6.3%.
  - Of LGBT-identified adults, by race and ethnic group, 60% are non-Hispanic whites and 40% racial and ethnic minorities.

Self-identification as LGBT represents only one aspect of measuring sexual orientation and gender identity. For example, a paper issued by UCLA School of Law’s Williams Institute showed that direct assessments of same-sex sexual behavior or attraction yield very different, and often larger, population estimates when compared with estimates of LGBT self-identification. A variety of factors can affect the willingness of adults to identify as LGBT—e.g., how comfortable and confident survey respondents feel about the confidentiality and privacy of data collected.

The 2011 Williams Institute report, which analyzed the findings of 11 surveys that asked questions about sexual orientation or gender identity, provided the following key findings:

- An estimated 3.5% of adults in the United States identify as lesbian, gay, or bisexual and an estimated 0.3% of adults are transgender.
- Among adults who identify as LGB, bisexuals comprise a slight majority (1.8% vs 1.7% who identify as lesbian or gay).
- Women are substantially more likely than men to identify as bisexual. Bisexuals comprise more than half of the lesbian and bisexual population among women in 8 of the 9 surveys considered in the brief. Conversely, gay men comprise substantially more than half of gay and bisexual men in 7 of the 9 surveys.
- Estimates of persons who report any lifetime same-sex sexual behavior and any same-sex sexual attraction are substantially higher than estimates of those who identify as LGB. An estimated 19 million Americans (8.2%) report that they have engaged in same-sex sexual behavior, and nearly 25.6 million Americans (11%) acknowledge at least some same-sex sexual attraction.

The US National Institutes of Health has designated sexual and gender minorities as a health disparity population for NIH research. Understanding the underlying demographics of a population is critical to assessing health and well-being. Relatively rapid shifts in the composition of the LGBT-identified community underscore the importance of collecting data that measure sexual orientation and gender identity. Data collected only a few years ago may not accurately reflect key characteristics of the current LGBT population.

**Clinicians’ Experience and Knowledge in Treating LGBT Patients**

Although personal biases, limitations on access to healthcare coverage, and financial challenges undoubtedly play roles in the difficulties LGBT individuals face in receiving well-informed and appropriate care, insufficient knowledge of LGBT issues remains a core concern. In recent years, some researchers have sought to assess the state of healthcare providers’ knowledge and attitudes regarding issues relevant to members of LGBT communities and their health needs.

A 2011 survey of 132 medical school deans in the United States and Canada found that students receive only 5 hours of LGBT-related training during 4 years of medical school. Nine medical schools reported 0 hours taught during preclinical years and 44 reported 0 hours taught during clinical years.

Based on an online survey of 4,262 students at 170 US and Canadian medical schools and focus groups with students at 5 schools, White and colleagues reported the following findings:

- Most medical students (67.3%) evaluated their LGBT-related curriculum as “fair” or worse.
- Students most often felt prepared to address HIV (78.5%) and non-HIV STIs (68.9%).
- They felt least prepared to discuss sex assignment surgery (26.1%) and gender transitioning (28.0%).
- Medical education helped 62.6% of students feel “more prepared” and 46.3% of students feel “more comfortable” to care for LGBT patients.

Analysis of the focus group transcripts found that students have significant concerns in addressing certain aspects of LGBT health, specifically with transgender patients. The authors concluded that medical students felt comfortable, but not fully prepared, to care for LGBT patients, and they advised that curricular coverage of LGBT-related topics should be increased, with emphasis on exposing students to LGBT patients in clinical settings.

**MSM Issues**

A study by Petroll and colleagues assessed the importance of clinicians’ awareness, or lack of it, regarding the sexual orientation of men who have sex with men (MSM). Although the healthcare needs of MSM are generally similar to those of other men, the higher prevalence of some infectious diseases—HIV, hepatitis A and B, certain sexually transmitted infections (STIs)—means that additional diagnostic and preventive measures are recommended for routine healthcare.

Recent studies have reported that 73% to 82% of physicians were comfortable treating gay patients, with variations by physician gender, specialty, and year of medical school graduation. However, a substantial minority indicate discomfort in treating gay patients, have reservations about discussing sexual orientation, and would like further training in this area.

One study reported only 17% of primary care providers (PCPs) identified “sexual preference” as one of the routine questions they ask while taking a sexual history. The researchers analyzed results of a survey of 271 MSM that asked whether their PCPs were aware of their sexual orientation and how the PCP acquired this knowledge.

Overall, 71.4% of the men reported that their PCPs were aware of their sexual orientation, whereas more than one-quarter (25%) reported that their PCPs were unaware of their sexual orientation.
Of those with aware PCPs, 70.1% reported having disclosed their sexual orientation without being asked, 13.8% disclosed after the PCP asked, and 13.9% believed that their PCP had correctly assumed their sexual orientation.

A critical finding was that PCPs’ knowledge of patients’ sexual orientation was associated with a higher likelihood that they had recommended disease screening and preventive health measures: 59% vs 13% for HIV testing and 32% vs 16% for hepatitis A or B vaccination.

**Lesbian Issues**

When a woman enters a clinician’s office, unless questioned in a nonjudgmental fashion about sexual orientation or providing that information voluntarily, she will typically be treated as heterosexual. Physicians, especially obstetrician/gynecologists who believe that they do not see lesbian patients may not be asking the right questions. To assess the knowledge and attitudes of obstetrician-gynecologists toward lesbian health issues, Abdessamad and colleagues analyzed responses to a survey from 271 clinicians in Ontario, Canada. In addition to true-false questions, the participants also responded to the Homosexuality Attitudes Scale (HAS). The authors reported that the mean HAS score was 87.6, indicating an overall positive attitude. The mean knowledge score was 76%, indicating that respondents had adequate knowledge about lesbian health; 22% described their lesbian health knowledge-base as unaware. Most respondents reported lack of education on lesbian health in their residences (81%) or medical school (78%). The majority reported a desire for formal education concerning lesbian health. The authors observed that, although the results indicate overall adequate knowledge about lesbian health issues, important knowledge gaps remain.

To compare the experiences of rural vs urban lesbians with their healthcare providers, Barefoot and colleagues analyzed the results of an online survey of 895 (31.1% rural and 68.9% urban) American lesbians. The investigators found that relatively fewer rural lesbians indicated that their current women’s healthcare provider (WHCP) had discussed/recommended the human papillomavirus (HPV) vaccination compared with urban lesbians (27.5% vs 37.2%). With respect to preventive behavior, significantly fewer rural vs urban lesbians ≥40 years of age had received a mammogram in the past 3 years (63.2% vs 83.2%). The researchers concluded that rural, compared with urban, lesbians may experience greater health risks related to being less likely to be recommended the HPV vaccination, and, for those ≥40 years of age, less likely to receive routine mammograms.

In order to best address the invisibility that many lesbian patients experience, clinicians need to ask all women about their sexual orientation and gender identity, rather than to assume.

**Transgender Issues**

Healthcare providers have reported inadequate preparation to care for transgender patients, with patients often needing to teach their own clinicians about transgender care. Braun and colleagues sought to evaluate the impact of an elective 10-session course in transgender health for health-professions students. Participants completed pre-, immediately post-, and 3-month post-course questionnaires to determine the course’s effect on knowledge, attitudes, and beliefs about transgender health. Forty-six students completed the pre- and immediately post-questionnaires (74% response rate). Compared with pre-elective surveys, the immediately post-course scores demonstrated increased knowledge of most topics and reduced transphobia. Specific knowledge domains with improvements included terminology, best practices for collecting gender identity, awareness of the Diagnostic and Statistical Manual of Mental Disorders-5 (DSM-5) gender dysphoria diagnosis, medications used for gender affirmation, and relevant federal policies.

To assess whether future internists will be prepared to manage transgender patients, Johnston and Shearer conducted a survey of 67 internal medicine residents at a large urban academic center to better understand their attitudes, prior education, comfort, and knowledge regarding transgender primary care. They found that nearly all (97%) participants felt that understanding transgender care is valuable to their practice as internal medicine physicians. However, fewer than half of them (45%) had received any previous education in this area.

When asked to rate their confidence in caring for a transgender patient on a 1 to 5 scale (1 = low confidence, 5 = high confidence), the median response was 2, and average was 2.4. Two residents (3%) indicated that they would feel uncomfortable treating a transgender patient for personal, moral, or religious reasons. Just 9% felt confident in prescribing hormone replacement therapy, and 27% knew where to refer a patient for hormone therapy. Regarding gender-affirming surgery, 15% of residents felt they could adequately describe the process of female-to-male sexual reassignment, and 19% could describe the male to female sexual reassignment to their patients, with only 9% indicating that they felt they knew where to refer patients for gender-affirming sexual reassignment.

Regarding primary care screenings, 91% and 93% did not feel up to date on screening guidelines for trans men and trans women, respectively.

**Young Persons**

In a survey of 184 residents and attending physicians in pediatrics, internal medicine, obstetrics-gynecology, psychiatry, emergency medicine, and family practice, Kitts sought to identify barriers to optimal care between physicians and LGBTQ adolescents. The author reported the following:

- The majority of physicians did not regularly discuss sexual orientation, sexual attraction, or gender identity while taking a sexual history from a sexually active adolescent.
- The majority of physicians did not ask patients about sexual orientation if an adolescent presented with depression or suicidal thoughts or had attempted suicide.
- For adolescents who stated that they were not sexually active, 41% of physicians reported that they would not ask additional sexual health questions.
- The majority of physicians did not believe that they had all the skills needed to address issues of sexual orientation with adolescents, and that sexual orientation should be addressed more often with these patients and during training.

**Elder Care**

By 2030, there will be an estimated 2 million to 6 million LGBT adults ≥65 of age in the United States (vs an estimated 1 million to 2.8 million in 2000), approximately 120,000 of whom are projected to be living in nursing homes. These individuals will have distinct healthcare needs and face well-documented healthcare disparities—eg, disability, poorer mental health, smoking, and increased alcohol consumption. In addition, older lesbians have a higher risk of developing metabolic syndromes and CVD, while older transgender adults are at significantly higher risk of poor physical health, disability, depression, and perceived stress compared with cisgender (nontransgender) patients.

To approach the challenges of treating this population, Cannon and colleagues urge that medical schools incorporate materials on older LGBT patient care into their curricula on caring for older patients. The authors recommend that students be presented with specific LGBT eldercare clinical cases that would emphasize understanding of “chosen families,” complex end-of-life issues, and the development of solutions.

Creating a Welcoming Environment

LGBT patients often assess a clinical practice for clues to help determine what information they feel comfortable sharing with a healthcare provider. The following are among the measures that can promote a more welcoming environment:

- Post a rainbow flag, pink triangle, unisex bathroom signs, or other LGBT-friendly symbols or stickers.
- Exhibit posters showing racially and ethnically diverse same-sex couples or transgender people or posters from nonprofit LGBT or HIV organizations.
- Display brochures (multilingual when appropriate) about LGBT health concerns.
- Distribute or visibly post a nondiscrimination statement stating that equal care will be provided to all patients, regardless of age, race, ethnicity, physical ability or attributes, religion, sexual orientation, or gender identity/expression.
- Display LGBT-specific media, including local or national magazines or newsletters about and for LGBT and HIV-positive individuals.

Best Practices in LGBT Healthcare

Healthcare providers can help to promote the health of their LGBT patients by examining their practices, office environments, policies, and staff training to look for ways to improve access to quality care. This section will offer some ideas to update a practice’s physical environment, to update intake and health history forms, to improve provider-patient discussions, and to increase staff knowledge about and sensitivity to LGBT patients.

Most of the suggestions and recommendations contained here fall under the broader topic of culturally and linguistically appropriate care. There is a host of resources available for further information and training in providing culturally competent care not only for LGBT patients but for patients who belong to many racial, ethnic, and socioeconomic populations. For an introduction to culturally competent care, along with numerous further resources, please visit the US Department of Health and Human Services’ website, “Think Cultural Health,” https://www.thinkculturalhealth.hhs.gov/clas. The American Medical Association offers recommendations for an LGBTQ-friendly environment at: https://www.ama-assn.org/delivering-care/creating-lgbtq-friendly-practice; the Gay & Lesbian Medical Association offers provider webinars on quality healthcare for LGBT people at: http://www.glma.org/index.cfm?fuseaction=Page.viewPage&gpa-geld=1025&grandparentID=534&parentID=940&nodeID=1.

General Guidelines for Forms and Patient-Provider Discussions

Filling out intake forms gives patients an important initial impression of a practice and helps to set the tone for how comfortable patients feel in being open about their sexual orientation or gender identity/expression. The following are topics for possible inclusion in health history forms or to help clinicians with in-person discussions with patients:

- Intake forms should include questions about sexual orientation and gender identity. They should also use the term “relationship status” instead of “marital status,” including options like “partnered.” When asking—on forms or in person—about a patient’s significant other, use terms such as “partner,” in addition to “spouse” and/or “husband/wife.”
- Adding a “transgender” option to the male/female check boxes on intake forms can help capture better information about transgender patients and will offer an initial sign of acceptance. Also adding a body map for patients to identify anatomic elements of their bodies and identifying preferred pronouns.
- Clinicians can train front desk staff to ask for clarity in an inclusive way by anticipating that some transgender patients who are in the processing of transitioning may have discordancy between their name and their insurance card and/or identification card.

LGBT Diversity

- Prepare now to treat a transgender patient someday. Healthcare providers’ ignorance or discomfort when treating transgender patients may alienate them and result in lower-quality or inappropriate care, as well as deter them from seeking future medical care.
  - Because transgender individuals might have had traumatic experiences with doctors that caused fear or mistrust, developing rapport and trust may take longer and require added sensitivity.
  - Ask questions that are necessary to assess the situation but avoid unrelated probing. Explaining why you need information can help avoid the perception of intrusion. For example: “To help assess your health risks, can you tell me about any history you have had with hormone use?”
- Be aware of additional barriers caused by differences in socioeconomic status, cultural norms, racial/ethnic discrimination, age, physical ability, and geography. Do not make assumptions about literacy, language capacity, and comfort with direct communication.
- When talking about sexual or relationship partners, use gender-neutral language such as “partner(s)” or “significant other(s).”
- Ask open-ended questions, and avoid making assumptions about the gender of a patient’s partner(s) or about sexual behavior(s). For example, if a new female patient records that she is married, it is useful for clinicians not to assume that spouse is the opposite sex.
- Use the same language that a patient does to describe self, sexual partners, relationships, and identity.
- When discussing sexual history, it is key to reflect patients’ language and terminology about their partners and behaviors. Many people do not define themselves through a sexual orientation label, yet may have sex with persons of their same sex or gender or with more than one sex. For example: some men who have sex with men (MSM), especially African American and Hispanic men, may identify as heterosexual but have both female and male partners.

Confidentiality

Encourage openness by explaining that patient-provider discussions are confidential and that you need complete and accurate information to develop an understanding of the patient’s life in order to provide appropriate care. Ensure that the conversation will remain confidential and specify what information will be retained in the individual’s medical records. Developing and distributing a written confidentiality statement will encourage LGBT and other patients to disclose information pertinent to their health. Display the confidentiality statement prominently and provide it in writing to every patient. Consider having staff members agree to the statement in writing. Encourage patients to identify “chosen family” members on their HIPAA form.

Specific Issues to Discuss with LGBT Patients

Homophobia, biphobia, transphobia, discrimination, harassment, stigma, and isolation related to sexual orientation or gender identity/expression can contribute to depression, stress, and anxiety. Clinicians should conduct depression and mental health screening, knowing that these can be sources of stress for LGBT patients.

“Outness.” Explore the degree to which LGBT patients are “out” to their employers, family, and friends, and/or the extent of social support or community participation. An individual’s level of identification with community often strongly correlates with decreased risk for STIs, including HIV, and improved mental health. Differences between national and state laws can affect how out a patient is. For example, although there is protection for same sex marriage nationally, state and county laws may not protect LGBT people.
In these states and counties, employers may still legally terminate employment if a worker reveals that she/he/they are LGBT.

**Behaviors.** Clinicians should understand that LGBT people are particularly vulnerable to social stresses that lead to increased tobacco and substance use, which occur at higher rates in LGBT populations. Be prepared to intervene, provide treatment options, and be aware of whether options are inclusive of LGBT patients. Likewise, explore whether LGBT patients are dealing with social stress through alcohol or drug use and be prepared to present treatment options. Social stress may also contribute to body image, exercise, and eating habits.

Discuss safer sex techniques and be prepared to answer questions about STIs and HIV transmission risk for various sexual activities relevant to LGBT people.

**Lesbian Issues.** If a female patient identifies as lesbian or indicates a female sexual partner, do not assume that she has never had a male sexual partner, has no children, has never been pregnant, or has little risk of STIs. If a male patient identifies as gay or bisexual or indicates a male sexual partner, do not assume that he has never had a female sexual partner or has no children. Do not make assumptions about past, current, and future sexual behavior.

**MSM Issues.** The CDC recommends annual screening of MSM for syphilis, gonorrhea, chlamydia, and HIV, and immunization against hepatitis A and B for MSM who are not already immune. If patients do not have coverage for vaccination, refer them to a community clinic or STI clinic offering free or low-cost vaccination.

**Transgender Issues.** Transgender people are sometimes subject to the most extreme levels of social exclusion, which can destabilize individuals and create a host of adverse health outcomes. Health interventions will need to consider the aggregate impact of health risks resulting from this stigma.

Risks and response behaviors to watch for include:
- Cycling in and out of employment (and therefore health insurance)
- A history of interrupted medical care
  - Avoiding medical care
  - Pursuing alternate gender confirmation therapies (like injecting silicone or taking black market hormones)
- Engaging in survival sex—i.e., in exchange for money or shelter
- Interrupted education
- Incarceration
- Social isolation
- Trauma
- Extreme poverty

**Violence Screening**
Assure patients of confidentiality to the extent possible, depending on state laws regarding mandatory reporting. Ask all patients—men and women—violence screening questions in a gender-neutral way:
- Have you ever been hurt (physically or sexually) by someone you are close to or involved with or by a stranger?
- Are you currently being hurt by someone you are close to or involved with?
- Have you ever experienced violence or abuse?
- Have you ever been sexually assaulted/raped?

Due to gender identity or expression, patients who are transgender may be victimized by violence and sexual assault. For these individuals, risk assessment should be much more in-depth. If a person reports frequent violence, be sure to explore health issues related to long-term and post-traumatic stress. Whether or not transgender persons are visibly gender-nonconforming, they may experience trauma, increased stress, and grief as a result of violence against other community members.

**Substance Use and Abuse**
Members of the LGBTQ community have higher rates of substance use and abuse than heterosexual populations. This includes opioid addiction of prescription drugs, with 10% of LGBTQ people misusing opioids, compared with 4.5% of heterosexuals. Screening regarding substance use and abuse needs to occur at primary care visits.

**Language**
Listen to how patients describe their sexual orientation, partner(s), and relationship(s), and reflect their choice of language. Although many LGBT people may use words like “queer,” “dyke,” or “fag” to describe themselves, these and other words have been used as derogatory terms for LGBT individuals. Although individuals might have reclaimed the terms for themselves, they are not appropriate for use by healthcare providers who have not yet established a trusting and respectful rapport with patients. If you are in doubt about how to refer to a patient, ask what word or phrase is preferable. (See Tables 2 and 3)
- Avoid using the term “gay” with patients even if they have indicated a same-sex or same-gender sexual partner. If patients themselves have not indicated a particular identity or have indicated a sexual orientation other than gay, using this term may cause alienation and mistrust that can interfere with information gathering and appropriate care. The key is to follow the patient’s lead about self-description while exploring how this relates to their current and potential medical needs. Clinicians need to elicit all 3 aspects of sexual orientation: attraction, self-described identity, and behavior, as well as gender identity.
- Respect transgender patients by making sure all office staff are trained to use their preferred pronouns and names. Clearly indicate this information in their medical record for easy reference for future visits.

**Staff Sensitivity and Training**
One of the many advantages of hiring a diverse and inclusive staff is the perspectives that employees provide regarding optimal population-based care. When possible, it is helpful to have openly lesbian, gay, bisexual, and transgender staff members, who can provide valuable knowledge and perspectives about serving LGBT patients, as well as help patients feel comfortable. Although one person can certainly not speak for an entire group, having diverse members in an intentionally inclusive environment can improve all staff members’ understanding of LGBT issues. It is especially important to train all front-line staff in office standards of respect toward transgender people, including using their chosen name and referring to them by their chosen pronouns.

Training for all staff is critical to creating and maintaining practice environments that are safe for LGBT patients. Training should occur regularly to address staff changes and to keep all staff up to date.

**Topics to incorporate in staff trainings include:**
- Use of appropriate language when addressing or referring to patients or their significant others
- Learning how to identify and challenge internalized discriminatory beliefs about LGBT people
- Basic familiarity with important LGBT health issues (eg, impacts of homophobia, discrimination, harassment, and violence; mental health and depression; substance abuse; safer sex; partner violence; HIV and STIs)
- Indications and mechanisms for referral to LGBT-identified or LGBT-friendly providers

All employees need to understand that discrimination against LGBT patients, whether overt or subtle, is as unethical and unacceptable—and in many states as illegal—as any other kind of discrimination. Employers should stress to employees that discrimination against LGBT patients is not tolerable. It is also important to monitor compliance and provide a mechanism for patients
to report disrespectful behaviors. Some employees may have longstanding prejudices or negative feelings about LGBT patients due to ignorance or lack of familiarity with LGBT issues, and some may feel that their religious beliefs require them to condemn LGBT people. Some employees may need individual training and counseling.

Clinicians can play a role in advocating for adoption of electronic medical records templates that include patient information sheets regarding body maps and sex and gender orientation. Body maps are images of the body in which patients are asked to identify anatomic parts that they have. Questions about sexual orientation and gender orientation allow for obtaining information about attraction, identity, behavior, expression, and personal pronouns.

Resources

Health Professionals Advocating LGBT Equality (previously known as the Gay & Lesbian Medical Association)
Guidelines for Care of Lesbian, Gay, Bisexual, and Transgender Patients
www.glma.org

World Professional Association for Transgender Health (formerly known as the Harry Benjamin International Gender Dysphoria Association)
Standards of Care for the Health of Transsexual, Transgender, and Gender Nonconforming People
https://www.wpath.org/

National Coalition of Anti-Violence Programs (NCAVP)
www.avp.org

Gay, Lesbian, Bisexual, and Transgender Health Access Project
Community Standards of Practice for Provision of Quality Health Care Services for Gay, Lesbian, Bisexual and Transgendered Clients
www.glbthealth.org

National Coalition for LGBT Health
https://healthlgbt.org/

CenterLink; The Community of LGBT Centers
Directory of centers throughout the United States that have additional referrals for local LGBT-sensitive services—eg, counseling services, support groups, health education, and legal resources
www.lgbtcenters.org

LGBT National Help Center
National nonprofit organization offering toll-free peer counseling, information, and local resources
www.glbh.org

National LGBT Health Education Center: A Program of the Fenway Institute
Affirming Care for Transgender and Gender Non-Conforming People: Best Practices for Front-line Health Care Staff

Table 2: Interacting with Bisexual Patients

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
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<tr>
<td>Nonjudgmental questions about sexual practices and behaviors are more important than asking about sexual orientation or gender identity/expression.</td>
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<tr>
<td>Bisexual individuals’ sexual behaviors may not differ significantly from those of heterosexual or lesbian/gay persons.</td>
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<tr>
<td>They may be monogamous for long periods of time and still identify as bisexual; they may be in multiple relationships with the full knowledge and consent of their partners.</td>
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<tr>
<td>They might have been treated as confused, promiscuous, or even dangerous.</td>
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<tr>
<td>They may be wary of health care providers who assume that they are “sick” or indecisive simply because they have sexual relationships with more than one sex.</td>
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<tr>
<td>They may also lack comprehensive safer-sex information that reflects their sexual practices and attitudes and may benefit from thorough discussions about sexual safety.</td>
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Table 3: The Transgender Encounter. When assessing the sexual history of transgender people, there are several special considerations

<table>
<thead>
<tr>
<th>Consideration</th>
<th>Advice</th>
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<tbody>
<tr>
<td>Do not make assumptions about their behavior or bodies based on their presentation.</td>
<td>Ask if they have had any gender-confirmation surgeries to understand what risk behaviors may be possible.</td>
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<td>Understand that discussion of genitals or sex acts may be complicated by a disassociation with their body, and this can make the conversation particularly sensitive or stressful to the patient.</td>
<td>Ask the patient to clarify any terms or behaviors with which you are unfamiliar, or repeat a patient’s term with your own understanding of its meaning to make sure there is no miscommunication.</td>
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<tr>
<td>There are so few trained experts in transgender health that you will often have to become that expert. Likewise, providers who treat transgender patients often have to build the base of specialty care referrals by prescreening other providers for sensitivity or introducing them to educational resources. Do not be afraid to tell your patient of your inexperience. Your willingness to become educated will often stand out from their previous healthcare experiences.</td>
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birth (10.7% vs 8.9%) and had significantly higher scores on the Gail tool for assessment of breast cancer lifetime risk compared with heterosexual women (10.7% vs 8.9%). Changing behaviors among younger lesbian and bisexual women—eg, a higher interest in pregnancy—will likely influence this risk. Physicians should ask all patients about family planning expectations. In addition, lesbians and bisexual women are less likely to visit a clinician for routine screenings, such as Pap tests, mammograms, and clinical breast exams. This may be due to lesbians’ and bisexual women’s lack of awareness of gynecological and oncologic risks; lower rates of health insurance coverage, concern about discrimination, or negative experiences with clinicians.

Weight and Fitness
In a 2007 analysis, Boehm and colleagues reported that lesbians had more than twice the odds of being overweight or obese as heterosexual women. Some groups of lesbians have been found to have higher obesity rates vs other women—eg, those who are African-American; live in rural areas; have lower education levels; or are from households having lower socioeconomic status.

In a study of barriers among lesbians to engaging in regular physical activity, Brittain and colleagues identified both general barriers (ie, not specific to sexual orientation), such as fatigue and lack of an activity partner, and specific barriers, such as lack of lesbian-focused activity groups and lack of same-sex family memberships in fitness facilities. Another study, by Brittain and colleagues, found that obese individuals had 54.5% lower odds than healthy-weight ones of engaging in sufficient amounts of moderate and vigorous physical activity and that participants who reported excellent general health status vs those who reported poor health had 12.7 times greater odds of engaging in sufficient amounts of moderate and vigorous physical activity. Engaging younger, even adolescent age, women who are lesbians into a habit of regular exercise and older women regarding options that include bariatric surgery are important considerations for these patients.

Intimate Partner Violence
The Centers for Disease Control and Prevention’s National Intimate Partner and Sexual Violence Survey (NISVS) offers this definition of intimate partner violence (IPV) [formerly referred to as domestic violence]: “The term ‘intimate partner violence’ [IPV] describes physical violence, sexual violence, stalking and psychological aggression (including coercive acts) by a current or former intimate partner [ie, a person with whom one has a close personal relationship]. Examples of intimate partners include current or former spouses, boyfriends or girlfriends, dating partners, or sexual partners. IPV can occur between heterosexual or same-sex couples and does not require sexual intimacy.” This newer term is preferred since cohabitation (ie, domestic status) is not a prerequisite for this unhealthy condition of power and control over another person.

One study has estimated that 3.6% of lesbians have experienced intimate partner sexual abuse in their lifetimes. Although the reported lifetime prevalence of IPV among lesbians is higher than among heterosexual women, the difference is not statistically significant.

According to the NISVS, bisexual women are 1.8 times more likely than heterosexual women to report ever having experienced IPV and 2.6 times more likely to report intimate partner sexual violence. Men and women both contribute to the prevalence of IPV among lesbians and bisexual women. For example, the CDC found that 89.5% of bisexual women reported only male perpetrators of intimate partner physical violence, rape, and/or stalking and that almost one-third of lesbians who have experienced such incidents have had ≥1 male perpetrators.

Lesbian victims are less likely to report IPV violence, for reasons such as:
- Fewer services available to help lesbians and bisexual women
- Fear of discrimination
- Fear of not being believed (eg, clinician unaware that IPV exists in lesbian relationships)
- Threats from the perpetrator to expose the victim’s sexual orientation
- Fear of losing custody of children

Barriers and Aids to Assistance
LGBT individuals may face unique barriers to accessing help for intimate partner violence concerns, including:
- Legal definitions of intimate partner violence that exclude same-sex couples
- Risks related to revealing sexual orientation when seeking help and to rejection and isolation from family, friends, and associates
- Lack, or unawareness, of LGBT-specific or LGBT-friendly sources for assistance
- Potential discrimination by staff of service providers or by heterosexual violence survivors with whom they may interact
- Lack of IPV shelters that accept LGBT patients
- Low confidence in the sensitivity and effectiveness of law enforcement officials and courts

Mental Health
A range of factors affects lesbians’ mental and emotional health. The Institute of Medicine report on LGBT health highlighted the impact of stigma, systemic discrimination, and access barriers on poor health outcomes. Mental health and wellness are clearly affected by these factors. Lesbians and bisexual women often feel that they may need to hide their sexual orientation from family, friends, and employers. Bisexual women may feel even more alone because they may feel less connected to either the heterosexual or the gay and lesbian community. A study by Ryan and colleagues found that lesbian, gay, and bisexual young adults who reported higher levels of adverse or punitive family reactions in response to their children’s sexual orientation were 8.4 times more likely to report having attempted suicide, 5.9 times more likely to report high levels of depression, 3.4 times more likely to use illegal drugs, and 3.4 times more likely to report having engaged in unprotected sexual intercourse compared with peers from families who reported no or low levels of family rejection. Providers who serve this population should attempt to educate families about the impact of rejecting behaviors. Counseling families, providing anticipatory guidance, and referring families for counseling and support can help decrease risk and increase well-being for lesbian, gay, and bisexual youth.

A 2001 study by Gilman and colleagues that evaluated the risk of psychiatric disorders among individuals with same-sex partners found that during the previous 12 months women with same-sex partners experienced more mental health disorders—such as major depression, phobia, and post-traumatic stress disorder—than did women with opposite-sex partners. Lesbian and bisexual women tend to consult primary care clinicians for emotional reasons more often than heterosexuals if their primary care physician is aware of their sexual orientation. Building positive rapport with clients and creating a safe environment for sharing sensitive information, such as sexual orientation or sexual behaviors, could lead to more opportunities for screening and monitoring of critical behavioral health indicators such as smoking status, alcohol use, and mental health.

Suicidality
The limited available studies have found that same-sex sexual orientation is not disproportionately represented among suicide victims. However, a relationship between sexual orientation and nonfatal suicidal behavior has been observed in numerous studies. A meta-analysis of 25 international population-based studies that measured suicidal behavior in lesbian, gay, and bisexual adolescents and/or adults found that the
lifetime prevalence of suicide attempts in gay/bisexual males was approximately 4 times that of comparable heterosexual males. The relatively small number of studies in this meta-analysis that included substantial numbers of women indicated that lesbian/bisexual women had lifetime suicide attempt rates almost twice those of heterosexual women.

**Risk Factors.** A wide range of factors contributes to such increased risks of suicidal ideation and attempts:

- Higher incidence of suicidal ideation among adolescents and young adults, particularly during the coming out process
- Increased incidence of mental disorders, especially depression, generalized anxiety disorder, conduct disorder, and substance use
- Social stigma, prejudice, and discrimination associated with minority sexual orientation

**Resources**

Although lesbian-specific resources to mitigate suicidal ideation are lacking, several professional groups provide relevant LGBT-specific resources designed to address some of the underlying causes:

- The Association for Lesbian, Gay, Bisexual, and Transgender Issues in Counseling provides Competencies for Counseling Gay, Lesbian, Bisexual, and Transgender Clients, which offers guidelines for ethical, culturally competent care of sexual minority clients, although it does not touch specifically on heightened risk for suicidal behavior: http://www.algbtic.org/
- The American Psychiatric Association has developed guidelines, Assessment and Treatment of Patients with Suicidal Behaviors, that identify sexual orientation as a potential suicide risk factor, but provide limited information about factors associated with suicidal behavior among LGBT persons: https://psychiatryonline.org/pb/assets/raw/sitewide/practice_guidelines/guidelines/suicide.pdf
- The Trevor Project (https://www.thetrevorproject.org/) operates the only national crisis and suicide prevention lifeline for LGBT youth, provides in-school workshops, educational materials, and online educational resources for youth, and advocates for public policies to reduce LGBT stigma.

**Smoking**

In 2013, cigarette smoking prevalence was higher among lesbian, gay, or bisexual adults (26.6%) than heterosexual adults (17.6%); rates among lesbians/bisexual women were slightly higher than among gay men (26.4% and 26.7%, respectively). The group of women most likely to smoke is bisexual women, and lesbians are also more likely to smoke than heterosexual women. Among lesbians, younger women are more likely to smoke than older women. In the underground, working class 1950s LGBT scene, “butch” and “femme” became a way for lesbians to identify one another, and those who were “butch” became seen as how lesbians lived and behaved. This practice receded in the 1970s but has had some resurgence due to a more expansive definition of gender and sex-role identities.

Women who are lesbians who self-define as “butch” (often adopting more masculine behaviors, gender roles, and expression) are much more likely to smoke than younger lesbians who might identify as “femme.” Self-defined “femme” lesbians adopt more feminine behaviors, gender roles, and expression. Not all women who are lesbians adhere to these rigid sex-role identities, so clinicians should not assume that a woman is a “butch” or “femme” based on appearance. Many women appear like heterosexual women, which contributes to their invisibility.

A number of smoking cessation interventions aimed at sexual minority populations have been developed. Mathews and colleagues evaluated the efficacy of a community-based, culturally tailored smoking cessation program in 198 gay, bisexual, and transgender individuals. Higher educational attainment and use of nicotine replacement therapy were associated with treatment completion. Self-reported quit rates were 32.3% at post-treatment assessment. Treatment attendance, use of nicotine replacement therapy, and lower nicotine dependency were positively associated with quitting smoking. The researchers concluded that these results suggest the benefits of offering LGBT smokers culturally tailored smoking cessation treatments.

In a focus group survey involving 204 young LGBT participants, Baskerville and colleagues found that effective smoking cessation and prevention interventions should include the following key attributes:

- Be specific to LGBTQ+ communities
- Be accessible in terms of location, time, availability, and cost
- Incorporate LGBTQ+ peer support and counseling services
- Integrate other activities beyond smoking
- Be positive, motivational, uplifting, and empowering
- Provide concrete coping mechanisms
- Integrate rewards and incentives

**Alcohol Use**

Excessive alcohol consumption and drug abuse appear to be more common among lesbians (especially young women) compared with heterosexual women. Lesbian and bisexual women are also more likely to drink alcohol and smoke marijuana in moderation than other women.

Dermody and colleagues reported that sexual minority young people appear to start drinking alcohol at an earlier age and demonstrate greater escalations of drinking during adolescence compared with heterosexual youth.

These distinctions were especially pronounced among sexual minority women—ie, lesbians and bisexual women. These investigators observed that sexual minority youth, particularly females, are at heightened risk for hazardous drinking, such as binge drinking and drunkenness, and they suggest that this is consistent with the “minority stress hypothesis” that predicts higher substance use among sexual minority individuals due to discrimination and victimization. In general, hazardous drinking increased during adolescence and began to level-off and decrease during young adulthood, but gay and lesbian youth had the fastest growth over time, resulting in transitioning from normative levels of hazardous drinking during adolescence to reporting the highest levels of binge drinking and drunkenness during young adulthood. The levels of hazardous drinking among lesbian and bisexual women escalated into adulthood and near or equaled levels among heterosexual males for binge drinking and drunkenness, respectively. It is important to recognize that all women handle alcohol differently than men. Alcohol harms all women more and is more toxic at lower doses due to gender-specific lower gastric alcohol dehydrogenase activity. This results in lower amounts of alcohol doing more damage, including earlier end-stage alcoholic liver disease, with the absence of the typical clinical presentation seen in men. Women with severe liver disease, for example, merely present with increased abdominal girth (often confused with adipose tissue), sallow complexion, and malnutrition. Men, however, have caput medusa, tremors, and a more pathognomonic appearance. Clinicians need to obtain data of intake and generate the gender-impact difference to assess harm—especially for lesbian and bisexual women.

The authors conclude that the findings of the study suggest that early prevention efforts for sexual minority females are needed to ameliorate heavy drinking disparities—eg, by providing mechanisms for adolescents to discuss sexual orientation safely with healthcare providers. The authors further suggest that improved ways of integrating sexual...
minority youth into the lesbian/gay community would be valuable in helping to reduce hazardous drinking among sexual minority individuals as they transition into adulthood.

Substance Abuse
According to a 2016 Substance Abuse and Mental Health Services Administration (SAMHSA) report, sexual minority men (36.3%) and women (41.1%) were more likely than sexual majority men (20.4%) and women (13.9%) to have used illicit drugs during the past year. For sexual minority females, 33.2% used marijuana in the past year and 11.6% misused prescription pain relievers in that period. Lesbians and bisexual women were also more likely to be past-year users of cocaine, heroin, hallucinogens, LSD, Ecstasy, inhalants, and methamphetamines and to have misused prescription tranquilizers, stimulants, and sedatives. (Much of the discussion in this section is also applicable to gay and bisexual males and will not be repeated in that section of this program.)

Substance use disorders (SUDs) are clinically significant impairments due to use of alcohol, other drugs, or both (marijuana; cocaine; heroin; hallucinogens; inhalants; methamphetamine; prescription pain relievers, tranquilizers, stimulants, and sedatives). Impairment can include health problems, disability, and failure to meet major responsibilities at work, school, or home. Sexual minority adults were more likely than sexual majority adults to have had SUDs in the past year. In 2015, an estimated 15.1% of sexual minority adults had an alcohol or illicit drug use disorder in the past year vs 7.8% of sexual majority adults.

Sexual minority males and females were also more likely than sexual majority males and females to have had an illicit drug use disorder in the past year (9.6% and 6.6 %, respectively, vs 3.7% and 1.6% for sexual majority males and females). An estimated 4.5% of sexual minority males and 3.5% of sexual minority females had a marijuana use disorder in the past year, vs 1.9% of sexual majority males and 0.7% of sexual majority females had a marijuana use disorder. Similarly, the 2.5% of sexual minority males and 1.7% of sexual minority females who had a pain reliever use disorder in the past year were higher than the percentages for sexual majority males and females (1.0% and 0.5%, respectively). In addition, sexual minority males and females were more likely than their sexual majority counterparts to have both an alcohol use disorder and an illicit drug use disorder in the past year—3.7% and 3.4%, respectively (vs 1.4% and 0.4%, respectively).

Recommendations for Clinicians
Substance abuse treatment providers, counselors, and therapists need to be aware of the issues relevant to their LGBT clients so that they can design treatment programs that provide effective, ethical, and informed care. Clinicians who treat LGBT individuals can help their patients recover from substance abuse and addiction by being sympathetic, supportive, and nonjudgmental and by helping them become more self-accepting and recovering from shame due to stigma, internalized homophobia, and substance abuse.

Clinicians should refer recovering LGBT individuals to a program that will help them heal (such as 12-step or other self-help groups), other LGBT individuals in recovery, and the patient’s own close friends and family. Counselors should remember that patients may also have concurrent health concerns such as other mental disorders, HIV, STIs, liver disease, hormone-related issues, or hepatitis B or C and should screen for these as well as for intimate partner violence.

Providing services that are appropriate, accessible, cost-effective, and effective can be challenging. The following are selected recommendations for achieving this goal:

• Counselors and treatment providers need to examine their treatment approaches and take appropriate measures to incorporate LGBT-sensitive and supportive approaches.
• Internalized homophobia, anti-LGBT bias, and heterosexism may contribute to the use of alcohol and drugs by LGBT individuals. Clinicians should learn the effects of these negative biases on the individual and the community and how to help patients affirm themselves and address negative feelings. Many clinicians need a better understanding of the interplay between sexual orientation and the sociocultural context related to substance use, abuse, and treatment.
• Treatment providers should learn about substance abuse in the LGBT community, where substance use, especially alcohol, can be an integral part of social life and is often connected to sexual identity formation, coming out, and self-acceptance.
• Clinicians should take into consideration the individual patient’s comfort level regarding his or her sexual orientation issues and how that can affect the patient’s recovery.

Training Recommendations
A limited number of facilities offer LGBT-sensitive recovery programs. Training professional and support staff to serve LGBT individuals in their own communities is critical to improving treatment outcomes. Considerations for training include:

• Provide training to staff members in cultural diversity and sexual orientation sensitivity. Topics should be diverse and applicable to all LGBT populations and include topics of sexual orientation, sexual identity, gender, and sexual behaviors.
• Use LGBT-specific training and educational programs to provide optimal care.
• Provide sensitivity training in which LGBT clients and heterosexual clients attend the same group therapy sessions. Counselors should prevent any homophobic behaviors. LGBT clients should not be forced to discuss sexual orientation or behaviors if they are not comfortable doing so.
• If the facility provides LGBT-only groups, attendance should be voluntary and confidentiality should be respected.
• Assess staff comfort, experience, and competence in serving LGBT individuals before developing a training program, during training, and after providing training.

Sexually Transmitted Infections (STIs)
This program will not cover STI symptomatology, diagnosis, or treatment; for detailed information on those topics, please consult the CDC’s 2015 Sexually Transmitted Diseases Treatment Guidelines (https://www.cdc.gov/std/tg2015/default.htm). This resource is available as a download, and the content is updated approximately every 2 years.

Women who have sex with women can transmit STIs to each other through:
• Skin-to-skin contact
• Mucosal contact (eg, mouth to vagina)
• Vaginal fluids
• Menstrual blood
• Sharing sex toys

Some STIs are more common among lesbians and bisexual women and may be passed easily from woman to woman, such as bacterial vaginosis, while others, such as HIV, are much less likely to be sexually transmitted between women. Bisexual women may be more likely to acquire STIs that are less common for lesbians who have sex only with women, due to having had sex with men in the past or present. Common STIs that can be transmitted between women include:

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Bacterial vaginosis (BV). BV is more common in lesbian and bisexual women than in other women and often occurs in both members of lesbian couples. It fulfills the definition of sexually transmitted in these populations but, to date, is not recognized as such, since it is not sexually transmitted in heterosexual woman.

Chlamydia. Chlamydia, which is spread through vaginal, oral, or anal sex, can damage the uterus, ovaries, and fallopian tubes. Because the symptoms are often mild, chlamydia can be transmitted by an individual who does not know that she has it.

Chlamydia can be treated with antibiotics, but untreated infections can lead to:
- Lower abdominal pain
- Lower back pain
- Nausea
- Fever
- Pain during sex
- Bleeding between periods

Genital herpes. Genital herpes infection is caused by the herpes simplex viruses type 1 (HSV-1) or type 2 (HSV-2), with most genital herpes being caused by the latter. Although HSV-1 can also cause genital herpes, it more commonly causes infections of the mouth and lips, ie, fever blisters or cold sores. Oral herpes can be transmitted to the genitals through oral sex. Although there is no cure for herpes, medications can shorten and prevent outbreaks or reduce transmission of the virus to others.

Human papillomavirus (HPV). HPV can cause genital warts, cervical, vulvar, vaginal, anal, and oropharyngeal cancer. Most people are unaware that they have been infected with HPV because they are asymptomatic. Depending on age and immunological factors, HPV may have limited effect and appear on examination to have resolved.

In other patients, it will result in genital warts and potentially years later progress to cancer. The Pap test checks for abnormal precancerous cervical cell growths caused by HPV. All girls and boys should be vaccinated against HPV to prevent future genital warts and/or cancer. Since women who are lesbian and bisexual may access healthcare less, their risk for missed immunization is higher. Lesbians and bisexual women can transmit HPV through direct genital skin-to-skin contact, touching, or shared sex toys. Lesbians who have had sex with men are also at risk of HPV infection. Therefore, increased efforts to immunize all girls and boys—to result in vaccination coverage of LGBT youth—coupled with regular Pap tests are as important for lesbian and bisexual women as for heterosexual women.

Trichomoniasis. Trichomoniasis is caused by a parasite that can be transmitted during sex as well as by contact with damp objects, such as towels or wet clothes.

Gay and Bisexual Men

Gay and bisexual men's healthcare needs are similar to those of all men, although they may experience additional risk factors and barriers to care that can affect their health. Although gay men have increasingly revealed their sexual orientation to their primary care providers, a significant percentage still have not done so.

If healthcare providers know that a male patient is gay, bisexual, or has sex with men, they can properly screen for risk factors and provide more comprehensive care. As a reminder, a patient may be sexually intimate with a man (behavior) but not identify as gay or bisexual. Therefore, it is vital that healthcare providers create a safe and welcoming environment for gay and bisexual men to self-identify and discuss their sexual histories and behaviors and other health-related issues. The risk factors that gay and bisexual men experience are disproportionately sexual, social, and behavioral. Clinicians must consider social and cultural variables, mental health, and substance abuse, in addition to specific risk behaviors when discussing health issues or recommending prevention messages to gay and bisexual men.

Heart Disease

Heart disease has long been a significant health concern for men of all sexual orientations. Major risk factors for heart disease among men include tobacco use and alcohol use—behaviors that are common among gay men. In an analysis of CVD biomarkers in 520 persons identified as gay, lesbian, or bisexual, Hatzenbuehler and colleagues found that gay and bisexual men had significant elevations in C-reactive protein, diastolic blood pressure, and pulse rate, compared with heterosexual men. CVD risk may be even greater for men who are HIV-positive. In an analysis of approximately 1,000 participants in the Multicenter AIDS Cohort Study, Post and colleagues reported that HIV-infected men had a greater prevalence of coronary artery calcium and plaque than uninfected men. Associations between HIV infection and plaque remained significant after coronary artery disease (CAD) risk factor adjustment.

Cancer

In some cases, gay men are at increased risk for several types of cancer—including prostate and testicular cancers. In addition, gay men—as well as anyone who has receptive anal sex—are at higher risk for anal cancer due to an increased risk of becoming infected with human papillomavirus (HPV), the virus that causes genital and anal warts. Some clinicians recommend routine screening with anal Pap smears, similar to the test done for women to detect early cancers. This reinforces the role of prevention with HPV vaccination. All boys should be vaccinated at ages 11 to 12 or before sexual debut. Gay and bisexual men who might have missed vaccination up until the age of 26 years should also be vaccinated. In heterosexual men, the upper age limit is 21 years.

Prostate Cancer

Most prostate cancers occur in men ≥50 years of age, and African American men are more likely to develop it than men of other ethnicities. Having ≥1 close relatives with prostate cancer also increases risk.

Men in same-sex relationships have a greater likelihood of contending with prostate problems—theirs, their partner’s, or both; very little research has been done in this area. Using focus groups, Asencio and colleagues explored gay men’s knowledge of and responses to the potential sexual consequences associated with prostate cancer and treatments. They reported that gay men have limited understanding of their prostate and the range of sexual challenges associated with prostate cancer and its treatment. Of note, use of prostate-specific antigen testing by gay/bisexual African Americans was 12% to 14% lower than that of heterosexual African Americans and 15% to 28% lower than that of gay/bisexual whites.

Testicular Cancer

About half of testicular cancers occur in men between the ages of 20 and 34 years. White men have a higher risk than men of other races. One of the main risk factors for testicular cancer is a condition called cryptorchidism, or undescended testicle(s). A family history of testicular cancer also increases risk. Some evidence suggests that men with HIV, especially those with AIDS, are at greater risk.

Anal Cancer

To assess the prevalence, genotypes, and determinants of the anal HPV infection in urban HIV-1 negative MSM, Donà and colleagues screened 258 MSM (median age 32 years) at an STI clinic for the presence of HPV. They found that overall, 74.8% of participants were HPV-positive, with 56.2% being infected by high-risk types of virus. HPV-16 and HPV-52 are associated with high risk of progression to anal lesions. A multiple infection was detected in 65.3% of the HPV-positive men. Lifetime and recent number of sexual partners as well as having receptive anal sex were significantly associated with anal HPV infection. The researchers...
stressed that these findings highlight the need to create greater awareness about the risk of anal HPV infection among HIV-negative MSM and warrant investigation of possible anal intraepithelial lesions, particularly given the increasing anal cancer incidence in high-risk populations. Men who are “bottoms” (receptive anal sex) are at highest risk.

Injury and Violence
Data shows that gay men generally experience 2 types of violence: criminal violence based on their sexual minority status, and violence from an intimate male partner (ie, domestic partner violence). Therefore, clinicians should routinely assess their MSM clients for a history of intimate partner violence or criminal violence due to victimization.

Criminal Violence
An online survey of 662 gay, lesbian, and bisexual adults found that approximately 20% of respondents had experienced a person or property crime based on their sexual orientation; approximately half had experienced verbal harassment, and more than 1 in 10 reported having experienced employment or housing discrimination. Gay men were significantly more likely than lesbians or bisexuals to experience violence and property crimes.

Intimate Partner Violence
Gay and bisexual men can experience intimate partner violence, but clinicians rarely screen for it. When IPV is identified in MSM patients, clinicians should be prepared to refer patients to intimate partner violence services in their area that serve gay and bisexual men. In a survey of a group of 817 MSM, Houston and McKinnar reported that 32.4% of participants reported any form of relationship abuse in a past or current relationship; 20.6% reported a history of verbal abuse, 19.2% reported physical violence and 18.5% reported unwanted sexual activity. Age and ethnic group were not related to reports of abuse, although depression and substance abuse were among the strongest correlates of intimate partner abuse. Men reporting recent unprotected anal sex were more likely to report abuse.

Fitness, Diet, and Exercise
Problems with body image are more common among gay men than among heterosexual men. In addition, gay men are more likely to experience an eating disorder such as bulimia or anorexia nervosa. On the opposite end of the spectrum, overweight and obesity also affect a significant segment of the gay community. Clinicians should be prepared to discuss their MSM patients’ fitness and diet regimen and provide appropriate counseling and referrals as needed.

Behavioral Health Issues

Depression and Anxiety
Depression and anxiety appear to affect gay men at a higher rate than members of the general population, especially if they continue to conceal their sexual orientation from friends and family and lack significant social support. Data from the National Epideimiologic Survey on Alcohol and Related Conditions indicated that gay men had a higher prevalence than heterosexual men of any lifetime mood disorder, eg, depression or dysthymia, (42.3% vs 19.8%) and of any lifetime anxiety disorder (41.2% vs 18.6%). Adolescents and young adults may be at particularly high risk of suicide because of these concerns. Factors such as verbal and physical harassment, negative experiences related to “coming out” (including level of family acceptance), substance use, and isolation all contribute to higher rates of suicidal thoughts, attempts, and completions among gay men and youth than among other populations. Clinicians should have available a list of culturally sensitive mental health services to which gay and bisexual clients can be referred.

Substance Abuse

Illicit Drugs
In 2015 SAMHSA reported the following data regarding illicit drug use among MSM in the past year:
- Marijuana: 27.1% vs 16.2% among heterosexual males
- Prescription pain reliever misuse: 8.6% vs 5.4%
- Inhalants (primarily amyl nitrates): 7.5% vs 0.3%

MSM were also more likely to be users of cocaine, hallucinogens, LSD, Ecstasy, inhalants, and methemphetamines and to have misused prescription tranquilizers in the past year. The data for the use of inhalants in the past year among MSM are noteworthy because inhalant use in the general population is more likely to occur among adolescents. Estimates of heroin use and the misuse of prescription stimulants and sedatives in the past year were similar for MSM and heterosexual males. For some gay and bisexual men, alcohol and illegal drug use, especially methamphetamines (meth), amyl nitrates (poppers), and drugs used to treat erectile dysfunction also contribute to an increased chance of acquiring HIV and other STIs. Use of drugs or alcohol may also increase chances of acquiring or transmitting HIV by becoming involved in more risky sexual practices and behaviors or through sharing needles or other drug injection equipment.

Alcohol
When Stall and colleagues assessed the prevalence and independent associations of heavy and problematic use of alcohol among 2,172 MSM in 4 large US cities, they found that alcohol use was highly prevalent (85%) and that ≥3 alcohol-related problems (12%) and heavy-frequent alcohol use (8%) were not uncommon. Demographics, adverse early life circumstances, current mental health status, social and sexual practices, and connection to gay male culture comprised the complex associations with heavy and/or problematic alcohol use. Among a group of 526 MSM 18 to 24 years of age 91% reported alcohol use, with 21% reporting binge drinking (≥5 drinks during a single sitting); 40% of the latter group reported frequent binge drinking. Another study of drinking frequency among MSM identified these correlates of heavy drinking: younger age, white race, lower educational attainment, depressive symptoms, and stimulant use; heavier drinkers also often experienced a history of childhood sexual abuse, and there were significantly greater depressive symptoms among very frequent heavy drinkers.

Tobacco
Not only is tobacco the leading cause of mortality among the general population, but studies have shown that gay males are among the groups disproportionately affected by tobacco use. Emphasis on other health issues (eg, HIV, illicit drug use) has often eclipsed the impact of tobacco on MSM, leaving individuals less educated about the need to discontinue smoking or the resources to assist in the process. For all gay male patients, clinicians need to be prepared to assess tobacco use, advise discontinuation, discuss medication options, and refer patients to local culturally competent cessation services.

It is important for providers to understand that alcohol and illicit drug use among gay men is significantly affected by factors such as age, affiliation with gay culture, level of stress, and how “out” an individual is, among others.

Therefore, culturally sensitive and accessible prevention and treatment programs are critical for addressing substance use among gay men.

Sexually Transmitted Infections
This program will not cover STI symptomatology, diagnosis, or treatment; for detailed information on those topics, please consult the CDC’s 2015 Sexually Transmitted Diseases Treatment Guidelines (https://www.cdc.gov/std/tg2015/default.htm).
Since behavior is an important component of risk, data include MSM but also MS/M/WS (men who have sex with men and women). MSM/MSW have 30% more female than male partners.
MSM/MSW rates vary by ethnicity, with the highest number being black MSM (34%), Hispanic MSM (26%) and non-Hispanic white men (13%). The following data focus on MSM exclusively.

**Syphilis**

The most recent CDC STI surveillance report (2016) states that MSM accounted for 80.6% of male primary and secondary syphilis cases; 36.8% were white, 29.1% were African American, and 24.0% were Hispanic. Compared to the percentage of the US population that is white (62.3%), African American (12.3%), and Hispanic (17.1%), these figures represent a significant inequality in the burden of disease for non-white MSM. Estimated rates of primary and secondary syphilis cases in MSM ranged from 0 per 100,000 in Wyoming to 861 per 100,000 in Mississippi. Cases among MSM increased 16.4% during 2015-2016 and 63.7% during 2012-2016.

**Gonorrhea**

Nearly 400,000 cases of gonorrhea are reported per year, but CDC estimates that the actual number of new infections may be 820,000. Thirty percent of new gonorrhea infections are resistant to ≥1 drug. This growth in antibiotic resistance underlines the seriousness of the increasing incidence of gonorrhea among MSM. The STD Surveillance Network (SSuN) is a collaboration of 9 selected state, county, and city health departments, with 29 clinics, that are federally funded to address STI surveillance problems. Estimated gonorrhea incidence among MSM increased 151.0% across the 2010-2015 period from 1,368.6 cases per 100,000 MSM in 2010 to 3,434.7 cases per 100,000 MSM in 2015.

**Human Papilloma Virus (HPV)**

HPV infections are the most common STI in the United States, and anyone who has ever been sexually active can acquire HPV; acquisition is more likely in persons who have had many sex partners or have had sex with someone who has had many partners. Because it is so common, most people get HPV infections shortly after becoming sexually active. Gay and bisexual men are estimated to be 17 times more likely to develop anal cancer than heterosexual men. Certain populations (people with weakened immune systems and people with HIV) are at higher risk for HPV-related health conditions. There are 2 categories of sexually-transmitted HPV. Low-risk HPV can cause genital warts. High-risk HPV can cause various cancers:

- Cervical cancer
- Anal cancer
- Some types of oral and throat cancer
- Vulvar cancer
- Vaginal cancer
- Penile cancer

The 9-valent HPV vaccine is recommended routinely for MSM through 26 years of age; the vaccine’s efficacy in preventing HPV-associated diseases in men aged ≥26 years is unknown. Data is insufficient to recommend routine anal-cancer screening with anal cytology in persons with HIV infection or HIV-negative MSM. However, some clinical centers perform anal cytology to screen for anal cancer among high-risk populations (eg, HIV-positive individuals and MSM).

**Hepatitis**

- Gay, bisexual, and other MSM are at increased risk of acquiring viral hepatitis, including hepatitis A, B, and C. Approximately 10% of new hepatitis A and 20% of new hepatitis B infections in the United States are among gay and bisexual men. Moreover, MSM who are involved in high-risk behaviors, such as injection drug use and other activities that result in blood sharing also are at increased risk of getting HCV. Although there is no vaccine for HCV, there are highly effective treatments.

**Hepatitis A Virus (HAV)**

HAV is transmitted primarily by the fecal-oral route, through either person-to-person contact—ie, sexual activity or contact with fingers or objects having the virus on them—or through contact with objects, food, or drinks contaminated by the stool of an HAV-infected person.

**Hepatitis B Virus (HBV)**

HBV is transmitted through percutaneous or mucosal contact when body fluids—such as semen or blood—from an infected individual enter the body of an uninfected individual. HBV is highly infectious and is easily transmitted during sexual activity. It also can be transmitted through sharing needles, syringes, or other equipment used to inject drugs. HBV can cause acute illness and/or lead to chronic infection, cirrhosis of the liver, hepatocellular carcinoma, liver failure, and death.

**Hepatitis C Virus (HCV)**

HCV is transmitted through contact with the blood of an HCV-infected person, primarily through sharing needles, syringes, or other injection drug equipment. HCV can also be transmitted when getting tattoos and body piercings in casual settings or when nonsterile instruments are used. Although sexual transmission of HCV is uncommon, it can occur. Having an STI or HIV, sex with multiple partners, or rough sex can increase a person’s risk of acquiring HCV. HCV can sometimes result in acute illness, but more often HCV becomes a chronic infection that can lead to cirrhosis, liver failure, hepatocellular carcinoma, and death. National recommendations include screening anyone born between 1945 and 1965, anyone with injection drug use, anyone with chronic medical conditions (eg, dialysis, HIV), anyone who has received a transfusion, and healthcare workers.

Universal immunization for HAV and HBV is recommended for all MSM. In addition, studies have shown that safer sex is effective at reducing the risk of acquiring viral hepatitis and is currently the only means of preventing HCV infection. Several treatments are available that can significantly improve health and delay or reverse the effects of liver disease for HBV patients, and newer treatments for HCV can cure the infection in the majority of cases. For detailed guidance on HCV treatment, clinicians should refer to http://www.hcvguidelines.org/, published by the American Association for the Study of Liver Diseases (AASLD), and guidance on management of chronic HBV infection can be found at: https://www.aasld.org/sites/default/files/Terrault_et_al-2016-Hepatology.pdf.

**Human Immunodeficiency Virus (HIV)**

In 2014, gay, bisexual, and other men who have sex with men (MSM) were at the highest risk for HIV infection, accounting for 70% of all new infections, whereas individuals infected through heterosexual sexual activity comprised 23% of new infections. In 2015:

- Gay and bisexual men accounted for 82% (26,376) of new HIV diagnoses among males ≥13 years of age and 67% of all new diagnoses in the United States.
- Gay and bisexual men 13 to 24 years of age accounted for 92% of new HIV diagnoses among all men in their age group and 27% of new diagnoses among all gay and bisexual men.
- Gay and bisexual men accounted for 55% (10,047) of people who received an AIDS diagnosis. Of those men, 39% were African American, 31% were white, and 24% were Hispanic.

As these figures show, African American males continue to bear the largest burden of the US HIV epidemic. In addition, African-American and Hispanic MSM are more likely to become infected with HIV at a younger age (13 to 29 years), whereas white MSM are more likely to become infected when they are older (30 to 39 years).

HIV screening, diagnosis, and treatment are critical for the health of individual MSM patients, as well as for public health, since numerous studies have demonstrated that effective HIV treatment reduces the risk of HIV transmission from an HIV-positive person to sex partners to an extremely low level. Clinicians who treat gay and bisexual male patients should be prepared to offer HIV testing services as well as referral for medical treatment and other HIV services for those who test HIV-positive.
Transgender Persons

There is increased effort to identify best practices for transgender health. One example of guidelines is available at: http://transhealth.ucsf.edu/trans?page=guidelines-home. Available research related to physical health issues among transgender people is extremely limited and mainly conducted abroad. Furthermore, studies of how medical interventions, such as hormone therapy and/or sexual reassignment surgeries, affect overall physical health and well-being remain extremely limited. There is limited evidence to suggest an association between feminizing hormone therapies, such as estrogen-progestin combinations, and an elevated risk for venous thromboembolic disease and increased prolactin levels. Some research also suggests an association between masculinizing hormone therapies, such as testosterone, and elevated liver enzymes, loss of bone mineral density, and increased risk for ovarian cancer.

Injury and Violence

Violence against transgender individuals, especially transgender women of color, represents a serious concern among the transgender community in the United States. Determining precise figures is a complex challenge, but a wide range of studies have suggested that between 16% and 60% of transgender persons have been victims of physical assault or abuse, and between 13% and 66% have been victims of sexual assault. Intimate partner violence has also been found to be a serious issue for transgender individuals. Social stigmatization and other factors may lead to under-reporting.

Findings from several studies illustrate the seriousness of criminal and interpersonal violence in transgender communities:

- A 2009 Massachusetts study found that among 1,600 persons surveyed transgender respondents reported lifetime physical abuse rates by a partner of 34.6%, vs 14.0% for gay or lesbian individuals.
- According to a report issued by the Human Rights Campaign in November 2017, at least 102 transgender persons have been victims of fatal violence, approximately 87 of whom were persons of color (African American, Hispanic).
- In 2016, the National Coalition of Anti-violence Programs received information on 1,036 incidents of hate violence from 12 anti-violence organizations across the United States, 21% self-identified as transgender women and 5% as transgender men.

Behavioral Health

Suicidality

Studies have suggested high rates of suicidal ideation among transgender individuals, with some reports reporting a range of 38% to 65%. Even more disturbing are the studies that have found suicide attempts among transgender people ranging from 16% to 32%. Rood and colleagues evaluated the results of a survey among 350 transgender individuals (229 male to female [MTF] and 121 female to male [FTM]). The authors found that violence, discrimination, and the person’s transition status (ie, whether an individual is living or planning to live full-time as a transman or transwoman) significantly predicted the probability of suicidal ideation. Compared with individuals with no plans to transition, individuals who planned to live or who were living as their identified gender reported greater odds of lifetime suicidal ideation. They also found that FTM participants were significantly more likely to report experiences of victimization and lifetime suicidal ideation than MTF participants. Identifying such contributing factors is key to improving these individuals’ psychological health. Equipped with such knowledge, clinicians will be better able to develop individual treatment approaches to help patients minimize the emergence of suicidal ideation.

Mental Health

Although data about mental disorders among transgender people have long been challenging to develop, studies done in recent years have increasingly shed light on the serious prevalence of disorders such as depression and anxiety. Transgender individuals often are at greater risk for mental health problems compared with cisgender individuals, including low self-esteem, depression, anxiety, and suicidal ideation and suicide attempts. A 2013 survey of 226 transgender women found that nearly half met the criteria for depression and anxiety (51.4% and 40.4%, respectively).

A 2015 study of a diverse sample of 191 adult transgender women in the San Francisco Bay area reported that greater exposure to transgender-related stigma—eg, physical threats or harassment, incorrect gender terminology, or discomfort/disapproval of a person’s transgender identity—was associated with higher levels of depression and anxiety, with no differences found in relation to participants’ age, race, or ethnicity.

A literature review identified the following variables related to depression among transgender women:

- Social support—the availability of people who provide emotional and mental resources for coping—appears to reduce the risk of depression in transgender women.
- Violence—physical violence, sexual violence, and verbal harassment are associated with and may be a predictor of depression.
- Sex work, which is common among transgender women, may also contribute to depressive symptoms.
- Fear about how transgender identity may affect their lives has been associated with depression and anxiety.
- Sociodemographic variables that are associated with depression include younger age, lower education level, and lack of employment.

Although the overall findings of mental health problems in the transgender population are distressing, some studies have identified ameliorative variables—eg, parental and peer support that significantly alleviated psychological distress.

Substance Abuse

Studies have found that alcohol and substance abuse is a major concern among transgender people in the United States, with marijuana, crack cocaine, and alcohol reportedly the most commonly used drugs. One study noted that transgender men’s (FTM) use of marijuana, alcohol, or cocaine was 4 times greater than that of heterosexual and LGB individuals. There are also substance use differences within the transgender community—eg, a reported 34% incidence rate of intravenous (IV) drug use among male-to-female (MTF) transgender individuals, whereas FTM individuals had an incidence rate of 18%. The higher rates of risky behavior found in the MTF population may explain this higher incidence of IV drug use.

Investigators have reported that high rates of substance use disorders among transgender persons are associated with experiences of stigma, discrimination, bullying, family conflict, and abuse.

From a study of 292 MTF youth (16 to 24 years of age) in San Francisco, Rowe and colleagues reported these rates of substance use:

- Most (69%) reported using any drugs in the last 6 months.
- The most commonly used drugs were marijuana (63%), “club drugs” such as ecstasy, GHB (gamma-hydroxybutyrate), or ketamine (20%), nonprescribed prescription drugs (20%), crack/cocaine (16%), and methamphetamine (13%).
- Most (81%) drank alcohol in the last 6 months, while 51% engaged in binge drinking.
- Approximately one-third (33%) of participants reported using drugs before or during sex in the last 6 months.
- More than half of drug users (52%, or 36% of all participants) used ≥1 drug.
Another study from California reported that the prevalence of substance use was 2.5 to 4 times higher among transgender youth compared with nontransgender youth (depending on the substance). Transgender youth were also more likely both to have begun substance use at an early age and to have used recently.

In a study of 155 transgender adults from the mid-Atlantic region, Benotsch and colleagues found that nonmedical use of prescription drugs was relatively common and was strongly associated with emotional distress. Twenty-six percent of participants reported lifetime prescription drug misuse, with the most commonly reported medications being prescription analgesics (23.9%), anxiolytics (17.4%), stimulants (13.5%), and sedatives (8.4%).

There was also frequent (30.3%) nonmedical use of hormones. Moreover, participants who reported misuse of prescription drugs were also more likely to report use of illicit drugs.

Tobacco Use
Information on cigarette smoking prevalence, or other tobacco use, among transgender people is limited. However, in a recent national survey, Buchting and colleagues reported that cigarette smoking prevalence among transgender adults was higher than among the general adult population. Healthcare providers must be aware that, in transgender women who take estrogen, smoking greatly increases the risk of blood clots. These risks are similar to those faced by nontransgender women who smoke and take oral contraception or undergo hormone replacement therapy. In addition, transgender men who take testosterone are at increased risk of heart disease, and smoking further increases that risk.

Alcohol Use
To assess the differences in alcohol use and alcohol-related problems between transgender- and nontransgender-identified young adults, Coulter and colleagues conducted a survey among 175 transgender-identified students, 50,465 nontransgender-identified female students, and 24,552 nontransgender-identified male students aged 18 to 29 years.

Key findings included:
- Lifetime alcohol use:
  - 79.9% of transgender-identified persons
  - 75.8% of nontransgender-identified females
  - 74.8% of nontransgender-identified males
- Past-month drinking:
  - 60.3% of transgender-identified
  - 62.1% of nontransgender-identified females

Transgender individuals and nontransgender-identified males and females had similar risk of lifetime and past-month drinking, but transgender individuals drank on significantly more days in the past month vs nontransgender-identified females.

Although heavy episodic drinking (HED)—i.e., ≥5 drinks of alcohol at a sitting—in the past 2 weeks was reported by a somewhat smaller proportion of transgender individuals, they also reported HED on significantly more days vs nontransgender persons. HED has been associated with acute problems like blackouts, suicides, and sexual assaults. The researchers suggested that, because the number HED days was associated with verbal threats and sexual assaults, eliminating—or at least reducing—the victimization of transgender-identified people may mitigate their heavy episodic drinking and that a cost-effective way to reduce such drinking disparities may be to incorporate transgender issues into existing drinking and violence intervention prevention programs.

Sexual Health
HIV
Although all transgender people are vulnerable to HIV infection, available evidence suggests that, in relation to their population size, transgender women are among the most heavily affected populations. An analysis of data from CDC-funded HIV testing sites found that transgender women had the highest rates of HIV diagnoses (2.7%), followed by men (0.9%), transgender men (0.5%), and women (0.2%). A 2013 meta-analysis of available research estimated that 22% of transgender women were HIV-positive in 5 high-income countries, including the United States.

A previous review of studies in the United States estimated that, based on laboratory testing, 28% of transgender women were living with HIV, whereas only 12% self-reported their HIV-positive status. Although these estimates come from different studies, they suggest that many HIV-positive transgender women are not aware of their infection. Even fewer data are available for transgender men, but the limited available evidence indicates that HIV prevalence among transgender men is relatively low (0% to 3%). A 2011 study suggested that transgender MSM are at substantial risk of acquiring HIV.

Transgender women of color are especially vulnerable to HIV infection. For example, data from New York City show that between 2010 and 2014, 234 transgender individuals received a diagnosis of HIV infection—nearly all (99%) of them transgender women, of whom 93% were African American or Hispanic, and sexual contact with a male was the predominant transmission category.

Sexually Transmitted Infections (STIs)
Systematic surveillance data of sexually transmitted infections (STIs) among transgender people are sparse, and the relatively few studies suggest a wide range of incidence rates for STIs like syphilis, gonorrhea, chlamydia, herpes, and HPV.

In a retrospective review of medical records from 145 transgender patients 12 to 29 years of age (both MTF and FTM) at a community health center in Boston, researchers reported the following prevalence of STIs: 4.8% HIV, 2.8% herpes simplex virus, 2.8% syphilis, 2.1% chlamydia, 2.1% gonorrhea, 2.8% hepatitis C, 1.4% HPV. Only gonorrhea prevalence significantly differed by gender identity (MTF 2.1% vs 0.0% FTM). Syphilis was 1.4% among the whites compared to 21.6% and 14.7% among the Hispanics and African Americans. Hepatitis B was 6.5% among the whites compared to 36.0% and 35.5% among the Hispanics and African Americans. Hepatitis C was 3.6% among whites compared to 15.7% and 7.4% among the Hispanics and African Americans.

In a survey among 517 transgender women between 19 and 59 years of age in the New York City Area, Nuttbrock and colleagues identified the following rates of STIs:
- HIV
  - Whites, 3.5%
  - Hispanics, 49.6%
  - African Americans, 48.1%
- Syphilis
  - Whites, 1.4%
  - Hispanics, 21.6%
  - African Americans, 14.7%
- Hepatitis B
  - Whites, 6.5%
  - Hispanics, 36%
  - African Americans, 35.5%
- Hepatitis C
  - Whites, 3.6%
  - Hispanics, 15.7%
  - African Americans, 7.4%

Clinicians caring for transgender women should be knowledgeable of their patients’ current anatomy and sexual behavior before counseling them about STI and HIV prevention. Most transgender women have not undergone genital affirmation surgery and may retain a functional penis; therefore, they may engage in insertive oral, vaginal, or anal sex with men and women.

Clinicians should also consider the anatomic diversity among transgender men, because many still have a vagina and cervix and are at risk for bacterial STIs, cervical HPV, and cervical cancer.
Health Concerns in LGBT Youth

Compared with the general population, LGBT youth are at a higher risk for a wide variety of health concerns: substance use, STIs, cancers, CVD, obesity, bullying, isolation, rejection, anxiety, depression, and suicide. They also often receive lower quality of care due to stigma, lack of awareness among healthcare providers, and insensitivity to their unique needs.

A complex combination of factors can affect youth health outcomes. LGBT youth are at greater risk for depression, suicide, substance use, and sexual behaviors that can increase their risk for HIV and other STIs. Nearly one-third (29%) of LGBT youth had attempted suicide at least once in the previous year vs 6% of heterosexual youth. In 2014, young gay and bisexual men accounted for 8 out of 10 HIV diagnoses among youth.

Violence

Compared with other students, negative attitudes toward LGBT persons may put these youth at increased risk for violence, which can include bullying, teasing, harassment, and physical assault. According to data from the CDC’s 2015 national Youth Risk Behavior Survey (YRBS), of surveyed LGBT students:

- 10% were threatened or injured with a weapon on school property
- 34% were bullied on school property
- 28% were bullied electronically
- 23% who had dated or gone out with someone during the 12 months before the survey had experienced sexual dating violence in the prior year
- 18% had experienced physical dating violence
- 18% had been forced to have sexual intercourse at some point in their lives.

Weight Issues

Hadland and colleagues analyzed data concerning perceived weight status and weight control behaviors from 12,984 Massachusetts youth in the ninth through twelfth grades. They reported the following:

- Compared with exclusively heterosexual males, males with prior same-sex partners and bisexual males were more likely to self-perceive as overweight, despite being either healthy weight or underweight.
- Compared with exclusively heterosexual females, lesbians and bisexual females were more likely to self-perceive as being of healthy weight or underweight, despite being overweight or obese.
- Unhealthy weight control behaviors—eg, fasting >24 hours, using diet pills, and vomiting/using laxatives—were significantly more prevalent among sexual minority males (32.5%) and females (34.7%) vs exclusively heterosexual males (9.7%) and females (18.8%).

Similarly, when Laska and colleagues assessed disparities in weight and weight-related behaviors among 33,907 students at 40 colleges and universities by sexual orientation and gender, they reported that:

- Bisexual and lesbian women were more likely to self-perceive as being of healthy weight or underweight, despite being either overweight or obese.
- Bisexual women were at high risk for unhealthy weight, diet, physical activity, and weight control behaviors.

Substance Use

Some LGBT youth turn to substance abuse as a coping strategy for the stress, victimization, and stigma/discrimination they may experience in their daily lives. The findings of a 2016 study are sobering (Table 4).

Mental Health

LGBT youth experience increased rates of mental disorders, particularly depression, anxiety, and suicidal ideation. Mustanski and colleagues interviewed a racially diverse group of 246 Chicago-area LGBT youths 16 to 20 years of age. They found that one-third of participants met the criteria for any mental disorder, 17% for conduct disorder (eg, disobedience, violence), 15% for major depression, and 9% for posttraumatic stress disorder. Lifetime suicide attempts were frequent (31%) but less so in the previous 12 months (7%). Bisexual youths had lower prevalence of every diagnosis.

Marshal and colleagues, in a meta-analysis of 32 studies of young people ≤18 years of age, reported that LGBT individuals were twice as likely to have suicidal ideation, and 4 times as likely to have made suicide attempts requiring medical attention and that 29% attempted suicide in the last year vs 6% of their heterosexual counterparts.

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<table>
<thead>
<tr>
<th>Substance</th>
<th>Gay, Lesbian, Bisexual (%)</th>
<th>Heterosexual (%)</th>
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<tr>
<td>Alcohol</td>
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<td></td>
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<td>17.3</td>
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<td>Tobacco</td>
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<tr>
<td>Currently smoke cigarettes</td>
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<td>9.8</td>
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<td>Illicit drugs</td>
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<td>Ever used methamphetamine</td>
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<td>Currently use marijuana</td>
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<td>27.5</td>
<td>15.5</td>
</tr>
</tbody>
</table>

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Sexual Health
The CDC’s 2015 survey on sexual identity and health behaviors found that a greater proportion of gay, lesbian, and bisexual (GLB) vs heterosexual youth (grades 9 through 12) reported having first had sexual intercourse before 13 years of age (7.3% vs 3.4%) and were somewhat more likely to be currently sexually active (35.1% vs 30.1%). It is noteworthy that fewer than half of GLB youth (47.5%, vs 57.8% of heterosexuals) reported using a condom the last time they had sexual intercourse, although GLB were almost twice as likely to have ever been tested for HIV (18.2% vs 9.3%).

Because several common STIs are not reportable conditions, exact infection rates for young LGBT individuals are not available. The CDC, however, does provide estimates of STIs that underline the importance of encouraging healthy sexual behaviors in young persons, particularly in light of the finding that LGBT youth tend to become sexually active at younger ages.

Gonorrrhea. In its 2016 STIs surveillance report the CDC stated that across all the jurisdictions in its surveillance network, 44.7% of gonorrhea cases were estimated to be among MSM-only or MSMW. Among all males, the prevalence rates were highest among those aged 20 to 24 years and 25 to 29 years (616.8 and 545.1 cases per 100,000 males, respectively).

Chlamydia. There were 522,870 cases of chlamydia reported among males in 2016, for a rate of 330.5 cases per 100,000 males. However, rates among MSM cannot be determined, since most jurisdictions do not routinely report the sex of sex partners. Rates among males were highest in those aged 20 to 24 years (1,558.6 cases per 100,000 males compared with 657.3 cases per 100,000 females).

Syphilis. In 2016, the CDC estimated that MSM accounted for 68.6% of male primary and secondary syphilis cases. The highest rates were observed among men aged 25 to 29 years, 20 to 24 years, and 30 to 34 years (48.5, 37.9, and 35.0 cases per 100,000 males, respectively). The highest rates among women were among those aged 20 to 24 years and those aged 25 to 29 years (6.7 and 5.6 cases per 100,000 females, respectively).

Human papillomavirus (HPV). The prevalence of HPV infection is high among young sexually active MSM, with the anal canal being the most common site of infection. Some studies have found rates of approximately 90% in HIV-positive MSM.

HIV Epidemic
HIV disproportionately affects young MSM. Among young people (aged 13 to 24) diagnosed with HIV in 2015, 81% were gay and bisexual males:
- In 2011, among adolescent males aged 13 to 19 years, approximately 93% of all diagnosed HIV infections were from male-to-male sexual contact.
- From 2008 to 2011, young MSM aged 13 to 24 years had the greatest percentage increase (26%) in diagnosed HIV infections.
- Young African American and Hispanic males bear an especially disproportionate burden
  - In 2011, among all young MSM aged 13 to 24 years with HIV infection, an estimated 58% were African American; 20% were Hispanic.
  - Young African American MSM experienced the largest increase among all racial/ethnic groups in diagnosed HIV infections—from 3,762 diagnoses in 2008 to 4,619 diagnoses in 2011.

Health Concerns of Older LGBT Persons
An estimated 2.4 million people in the United States ≥65 years of age identify as lesbian, gay, bisexual, or transgender (LGBT). For all aging adults, access and receipt of proper healthcare is critical, but for LGBT older individuals this can be especially challenging. Supported by funding from the US National Institutes of Health and the National Institute on Aging, 11 LGBT community-based aging agencies collaborated to create The Aging and Health Report: Disparities and Resilience among Lesbian, Gay, Bisexual, and Transgender Older Adults. The findings of this report shed light on the vital issues faced by older adults in these communities, in addition to providing valuable guidance for healthcare providers who treat aging LGBT patients. The following paragraphs summarize the core findings of the report, grouped into 5 categories.

Health Disparities
- Higher rates of disability among lesbian, gay, and bisexual older adults (47%), compared with heterosexuals of similar age
- Higher rates of mental distress—eg, depression (31%), loneliness (53%), suicidal ideation (nearly 40%)
- More likely to smoke and engage in excessive drinking than heterosexuals
- Higher risk of CVD and obesity among lesbians and bisexual women vs heterosexual women
- Greater social risks
  - LGB older adults less likely to be partnered or married, potentially resulting in less social support and financial security as they age
  - Gay and bisexual older adult men significantly less likely to have children in the household and significantly more likely to live alone than heterosexual older adult men

HIV
People ≥50 years of age account for an estimated 45% of Americans living with diagnosed HIV. Key features of the HIV epidemic in this population include:
- Annual HIV infections among gay and bisexual men ≥55 years of age increased 18% from 2010 to 2014.
- People ≥50 years of age accounted for 17% of the 39,513 HIV diagnoses in 2015 in the United States.
- Among people ≥50 years of age, 49% of new HIV diagnoses in 2015 were among gay and bisexual men, 15% among heterosexual men, 23% among heterosexual women, and 12% among persons who inject drugs.
- In 2014, 40% of people ≥55 years of age had late-stage infection (AIDS) at the time of HIV diagnosis (ie, diagnosed late in the course of the infection).

Health Risks
Over their lifetimes, most LGBT older adults have faced serious adversity: 82% have been victimized at least once because of their perceived sexual orientation or gender identity, and 64% have been victimized ≥3 times. Many have encountered discrimination in employment and housing, which affects economic security. Experiences of discrimination have been linked with poorer health outcomes, such as depression among both chronically ill LGBT older adults and their informal caregivers.

In contrast to LGB older adults, many transgender older adults do not have the option to conceal their gender history to healthcare providers, as their body may reveal scars and other evidence that contradict their gender appearance when dressed. Because of this, transgender individuals may be more susceptible to discrimination and abuse by healthcare professionals, particularly for transgender older adults who may seek more frequent and intimate healthcare due to age-related physical conditions and disabilities. Incidents of overt homophobia or transphobia from healthcare providers toward older LGBT patients are reportedly common.
Healthcare Access
Challenges in receiving appropriate healthcare that the report uncovered include:

- More than one-tenth of LGBT older adults (13%) have been denied healthcare or have been provided inferior care.
- Nearly one-quarter of transgender older adults have needed to see a doctor but could not because of cost.
- 15% of LGBT older adults fear accessing healthcare outside the LGBT community, and 8% fear accessing healthcare inside the community.
- 21% have not revealed their sexual orientation or gender identity to their primary care provider.
- Bisexual women and men are less likely to disclose than lesbian and gay older adults.
- According to the American Medical Association, this can lead to failure to diagnose serious medical problems and prevents discussion of sexual health, risk of breast or prostate cancer, hepatitis, HIV risk, hormone therapy, and other risk factors.
- LGBT older adults often lack legal protections for their loved ones, with 30% having no will and 36% no durable power of attorney for healthcare.

Critical Needs
The consensus among LGBT older adults is that the services most needed in their communities are senior housing, transportation, legal services, social events, and support groups. Among LGBT caregivers, supportive long-term care facilities are seen as one of the most critical needs. Distinctions within the overall population of LGBT older adults, and the unique needs that come with them, are also worth noting: Both bisexual and transgender older adults are critically underserved populations who are at heightened risk of physical and mental health disparities, often exacerbated by fewer sources of social and community support.

Resources
National Resource Center on LGBT Aging
c/o Services & Advocacy for GLBT Elders (SAGE) 305 Seventh Avenue, 6th Floor New York, NY 10001 212-741-2247
https://www.lgbtagcenter.org/

SAGE (Services and Advocacy for GLBT Elders) 305 Seventh Ave, 15th Floor New York, NY 10001 212-741-2247
https://www.sageusa.org/

LGBT Aging Resources Clearinghouse
http://asaging.org/lgbt_aging_resources_clearinghouse

FORGE Trans Aging
PO Box 1272
Milwaukee, WI 53201
414-559-2123
http://forge-forward.org/aging/

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21. Regarding the survey of resident future internists’ knowledge of transgender healthcare, which of the following statements is True?
A. A majority expressed confidence in prescribing hormone therapy.
B. Fewer than half had received any education in transgender healthcare.
C. Nearly all had received some education in transgender healthcare.
D. Approximately half were familiar with where patients could be referred for hormone therapy.

22. Which of the following group(s) of men who have sex with men is more likely to still identify as heterosexual?
A. Native American
B. White
C. African American
D. Asian American

23. Which of the following best describes the risk of being overweight or obese among lesbians?
A. Twice as likely to be overweight or obese as heterosexual women
B. Equally likely to be overweight or obese as heterosexual women
C. Less likely to be overweight or obese than heterosexual women
D. Somewhat more likely to be overweight or obese than heterosexual women

24. According to a 2016 Substance Abuse and Mental Health Services Administration report, which group had the highest rate of illicit drug use during the past year?
A. Sexual minority men
B. Sexual minority women
C. Sexual majority men
D. Sexual majority women

25. Which of the following STIs has a low risk of being transmitted between women?
A. Chlamydia
B. HIV
C. Herpes simplex virus
D. Bacterial vaginosis

26. Is the following statement True or False?
According to the National Epidemiologic Survey on Alcohol and Related Conditions, gay men have a 50% higher lifetime prevalence of any mood disorder.
A. True
B. False

27. For which of the following groups of men who have sex with men (MSM) is the quadrivalent human papillomavirus (HPV) vaccine recommended?
A. HPV vaccination is recommended for MSM through 26 years of age.
B. HPV vaccination is not recommended for any MSM.
C. HPV vaccination is recommended for MSM older than 26 years of age.
D. HPV vaccination is recommended for MSM 12 to 18 years of age.

28. According to a 2015 study, exposure to which of the following was associated with higher levels of depression and anxiety in adult transgender women?
A. Transgender-related stigma
B. Tobacco use
C. Sexually transmitted infections
D. Poverty

29. In which group of young people was the highest prevalence of unhealthy weight control behaviors (diet pills, using laxatives, fasting >24 hours) identified?
A. Sexual minority females
B. Heterosexual females
C. Sexual minority males
D. Heterosexual males

30. What is the rate of disability among lesbian, gay, and bisexual older adults compared with heterosexuals of similar age?
A. 10%
B. 23%
C. 47%
D. 70%
A CLINICIAN’S GUIDE TO
RECOGNIZING AND RESPONDING
TO HUMAN TRAFFICKING

TARGET AUDIENCE
This course is designed for all physicians, physician assistants, nurse practitioners, and other health care professionals who see patients that are current victims of human trafficking or who suffer health effects that stem from past victimization.

COURSE OBJECTIVE
The purpose of this activity is to provide clinicians with the strategies for identifying, assessing and responding to patients who may be current or past victims of human trafficking. This details venues for human trafficking, techniques for identifying and assisting victims with referrals to multi-disciplinary professionals.

LEARNING OBJECTIVES
Completion of this course will better enable the course participant to:

1. Describe the types and venues of human trafficking in the United States and Michigan.
2. Recognize how to identify victims of human trafficking in health care settings.
3. Define the warning signs of human trafficking in health care settings for adults and minors.
4. Explain resources for reporting suspected victims of human trafficking.

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Introduction

Human trafficking has been called a form of modern-day slavery.\(^1\)\(^2\) It is a crime involving the exploitation of someone for the purpose of compelled labor or a commercial sex act through the use of force, fraud, or coercion.\(^1\) Victims can be women or men, adults or children, citizens or noncitizens and occurs across the United States and throughout the world.

For clinicians and health care workers, human trafficking can be viewed as a serious health risk associated with significant physical and psychological harms.\(^3\) The abuses suffered by people who are trafficked include many forms of physical violence or abuse (e.g., beating, burning, rape, confinement) as well as many psychologically damaging tactics such as threats to themselves or their family members, blackmail, extortion, lies about the person’s rights, and confiscation of vital identity documents.\(^3\)

What Is Human Trafficking?

Human trafficking is defined as “the recruitment, transportation, transfer, harboring or receipt of persons by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation.”\(^4\)

Many victims of human trafficking are forced to work in prostitution, but trafficking also occurs as labor exploitation in urban, suburban, and rural areas. Many victims are lured with false promises of well-paying jobs or manipulated by people they trust.\(^1\) They are forced or coerced into prostitution, domestic servitude, or other types of forced labor (e.g., agriculture, construction, fisheries, mining industries). Victims can be found in legitimate and illegitimate labor industries, including sweatshops, massage parlors, agriculture, restaurants, hotels, street peddling, door to door sales, begging, and domestic service.\(^1\)

Although anyone can be at risk for being a victim of human trafficking, most are women and girls.\(^5\) Risk factors for being a victim of human trafficking include:\(^6\)

- Extreme poverty
- Minimal education
- A history of abuse or family instability
- Being disabled
- Belonging to a marginalized or stigmatized gender, ethnic, or cultural group

Traffickers use various techniques to control their victims and keep them enslaved. Some traffickers hold their victims under lock and key. More frequently, however, more subtle techniques are used such as:

- Isolation from:
  - The public by limiting contact with outsiders and making sure that any contact is monitored or superficial in nature
  - Family members and friends
- Control:
  - Confiscation or control of passports or other identification documents
  - Debt bondage through enormous financial obligations or an undefined or increasing debt
  - Control of the victims’ money
- Intimidation/threat:
  - Use or threat of violence toward victims or their family members
  - Shaming victims by exposing humiliating circumstances to their families
  - Telling victims they will be imprisoned or deported for immigration violations if they contact authorities

The life situations of people who are trafficked are almost always complicated, whether they are under a trafficker’s control, trying to leave, or are already out of a trafficking environment. In addition, trafficked people may not self-identify as trafficked. Rather they may feel that these are merely the restrictions of their circumstance. They are usually beset with physical, psychological, social, legal, and financial circumstances that can be overwhelming.\(^3\)

Human trafficking became a federal crime with passage of the Trafficking Victims Protection Act of 2000 (TVPA) revised and updated in 2015.\(^8\) The goals of the TVPA were to prevent severe forms of human trafficking, both in the United States and overseas; to protect victims and help them rebuild their lives in the United States; and to prosecute traffickers and impose federal penalties. Prior to enactment of the TVPA, no comprehensive federal law existed to protect victims of trafficking in the United States or to prosecute their traffickers. Congress has reauthorized and amended the TVPA several times, but its fundamental purpose and legal authorities remain the same.

“Victim” or “Survivor”?

The terms “victim” and “survivor” can both be used to refer to individuals who were trafficked. The term “victim” has legal implications within the criminal justice process and generally means an individual who suffered harm as a result of criminal conduct.\(^7\)

“Survivor” is a term used by many in the health services field to recognize the strength it takes to continue on a journey toward healing in the aftermath of a traumatic experience.

Human Trafficking in Michigan

In 2013 the first Michigan Commission on Human Trafficking (MCHT) was created within the Department of the Attorney General, as a way to begin combating this problem in the state.\(^7\) A lack of high-quality data makes it difficult to quantify human trafficking in Michigan, but a recent survey found that the state’s domestic violence and sexual assault programs reported serving over 300 known human trafficking cases in the past two years.\(^10\) The MCHT reports that most experts believe that this figure is an underestimate and that there are likely many more trafficking victims in Michigan.\(^10\)

In Michigan over the past decade, there have been prosecutions for instances of children sold for sex at truck stops, servants held in captivity and forced to clean for free, and women forced to enter the sex industry and with earnings reaped by their traffickers.\(^10\)
In response to these challenges, the MCHT has ongoing efforts targeting five key tasks:

- Collecting statewide data to inform policymakers and law enforcement efforts
- Improving services for victims
- Supporting the development of professional training programs about human trafficking
- Raising public awareness
- Determining if new legislation or policy changes are required

**An Essential Role for Healthcare Providers**

A number of organizations representing healthcare providers have issued statements recognizing human trafficking as a public health issue and acknowledging the importance of building awareness of human trafficking among health care providers.10-13 The American Medical Association, for example, in its 2015 statement, says: "Physicians should be aware of the definition of human trafficking and of resources available to help them identify and address the needs of victims. The AMA will help encourage the education of physicians about human trafficking and how to report cases of suspected human trafficking to appropriate authorities to provide a conduit to resources to address the victim's medical, legal and social needs."

Healthcare professionals are uniquely positioned to identify and intervene on behalf of trafficking victims. Outside of law enforcement, healthcare settings are among the few places where the lives of human trafficking victims may intersect with the rest of society, if only for brief periods.14 In a study of 98 sex trafficking survivors, 88% had at least one encounter with a health care provider while they were being trafficked, with 63 percent of these encounters happening in an emergency department.15

One study noted that human trafficking victims in the U.S. may interact with a range of health care personnel, including primary care providers, sexual and reproductive health care workers, dentists, and providers of traditional or alternative remedies.7 Trafficking victims may even be found working within health care facilities.

Unfortunately, studies have demonstrated that medical care providers are often unprepared to identify trafficking victims.16,17

**Identifying Potential Victims of Human Trafficking**

Certain patient behaviors and/or companion behaviors can alert health care professionals to a potential human trafficking case.7,18 One common clue is the presence of a person who seems to control both the patient and the situation. Survivors report that their traffickers completed health-related paperwork for them and communicated with clinic staff and health care providers on their behalf.7 The physical proximity of the traffickers perpetuated their coercion and control of the victims, preventing them from communicating with health care personnel directly.7

The presence of an overbearing or controlling companion should trigger concern, and most recommendations suggest that in order to allow patients the opportunity to speak for themselves, clinic or hospital staff should attempt to interview and assess all patients privately. This may require the use of an independent interpreter, since many survivors have limited English proficiency.7

Trained non-clinical workers could be instrumental in helping to maintain separation during potential victim identification interviews in a manner that does not alert potential traffickers to victim identification efforts. Non-clinical staff, such as receptionists, security guards, and accounting personnel, who are made sensitive to these matters through training, may observe patterns and know when and how to respond if a potential trafficker repeatedly presents for multiple patients as a companion, translator, or medical bill payer, regardless of whether these personnel interact with the patients themselves.

Multilingual non-clinical staff who may share a common language with trafficked persons of limited English proficiency may be able to develop a rapport with trafficked persons that facilitates trust and frank communication based on their language or cultural commonalities. It is recommended, therefore, that health care organizations think broadly about the types of employees who are appropriate to receive training about human trafficking in order to enhance opportunities for identification of and response to potential trafficking situations.19

A human trafficking victim may develop a mindset of fear, distrust, denial, and conflicting loyalties. Foreign victims of trafficking are often fearful of being deported or jailed and, therefore, they may distrust authority figures, particularly law enforcement and government officials. Many victims of both sex and labor trafficking fear that if they escape their servitude and initiate investigations against their trafficker, the trafficker and his/her associates will harm the victims, the victims’ family members, or others.

Additional patient situations, behaviors, or emotional states may suggest human trafficking:2

- Paying cash or having no health insurance
- Lacking control of identification documents (ID or passport)
- Having few or no personal possessions
- Being reticent for additional testing or services due to large debt
- Inability to:
  - leave home or place of work
  - speak for oneself or share one’s own information
- Feelings of helplessness, shame, guilt, self-blame, and humiliation
- Loss of sense of time or space, not knowing where they are or what city or state they are in
- Emotional numbness, detachment, or disassociation (i.e., “flat affect”)

While not all victims of trafficking have physical indicators that aid identification, many victims suffer serious health issues, which may include:2

- Addiction to drugs and/or alcohol as a way to cope with or “escape” their situation, or as a method of control used by their traffickers
- Symptoms of post-traumatic stress disorder, phobias, panic attacks, anxiety, and depression
- Sleep or eating disorders
- Untreated chronic illnesses, such as diabetes or cardiovascular disease
• Signs of physical abuse, such as bruises, broken bones, burns, and scarring
• Chronic back, visual, or hearing problems from work in agriculture, construction, or manufacturing
• Skin or respiratory problems caused by exposure to agricultural or other chemicals
• Infectious diseases, such as tuberculosis and hepatitis, which are spread in overcrowded, unsanitary environments with limited ventilation
• Reproductive health problems, including sexually transmitted diseases, urinary tract infections, pelvic pain, and injuries from sexual assault or forced abortions

Responding to Victims of Human Trafficking
Victims of trafficking do not often disclose their trafficking situation in clinical settings. Health care providers must, therefore, be thoughtful and careful about engaging patients if human trafficking is suspected. Before beginning any conversation with a patient, assess the potential safety risks that may result from asking sensitive questions of the patient. Recognize that the goal of your interaction is not disclosure or rescue, but rather to create a safe, non-judgmental place that will help you identify trafficking indicators and assist the patient. This may be challenging in the context of busy, time-constrained schedules, but it is possible. Clinicians should:

• Allow the patient to decide if he or she would feel more comfortable speaking with a male or female practitioner
• If the patient requires interpretation, always use professional interpreters who are unrelated to the patient or situation
• If the patient is accompanied by others, try to find a time and place to speak with the patient privately
• Take time to build rapport with potential victims, or if you do not have the time yourself, find someone else on staff who can develop rapport with the patient
• Ensure that the patient understands confidentiality policies and practices, including mandatory reporting laws
• Use multidisciplinary resources, such as social workers, where available
• Refer to existing institutional protocols for victims of abuse/sexual abuse

• Contact the National Human Trafficking Resource Center (NHTRC) hotline (1-888-373-7888) for assistance. Information available at: https://humantraffickinghotline.org/

If a patient has disclosed that he or she has been trafficked:

• Ensure that safety planning is included in the discharge planning process
• Provide the patient with options for services, reporting, and resources
  • Provide the patient with the NHTRC hotline number. If the patient feels it is dangerous to have something with the number written on it, have them memorize the number or designate someone in your staff that they can call back to in order to provide that number.
• In situations of immediate, life-threatening danger, follow your institutional policies for reporting to law enforcement. Whenever possible, try to involve the patient in the decision to contact law enforcement.
• If the patient is a minor, follow mandatory state reporting laws and institutional policies for child abuse or serving unaccompanied youth. Most state laws require immediate intervention of the trafficked victim is a minor.
• Ensure that any information regarding the patient’s injuries or treatment is accurately documented in the patient’s records, recognizing that, similar to sexual assault examinations, the medical record serves both medical and legal purposes.

Legal requirements regarding mandatory reporting of human trafficking differ from state to state, and situations may require mandatory reporting under related statutes even if the situation is not human trafficking (e.g., child abuse or domestic violence). Information is available at: https://polarisproject.org/sites/default/files/2014-State-Ratings.pdf

Refer to your local or state requirements for additional information regarding mandatory reporting.

Assessment and Evaluation
Four fundamental principles have been recommended for health care professionals who come into contact with people who have been, or are being, trafficked:

1. Use a trauma-informed, resilience-oriented, human rights-focused, and culturally sensitive approach to the care of all patients.
2. Collaborate with and seek advice from colleagues who have been engaged in anti-trafficking or other violence prevention work.
3. Partner with advocates, social service providers, case managers, and others from outside the health sector to improve referral services and achieve a more effective overall response to human trafficking.
4. Play an active role in self-directed education and training about human trafficking.

Using a Trauma-Informed Approach
At a glance, it is easy to appreciate the trauma of a massive motor vehicle accident, but a patient who is trafficked is experiencing a similarly powerful, but far less visible, traumatic event. The task for clinicians is to recognize trafficking when they see it and respond appropriately. The patient’s experiences can be dehumanizing, shocking or terrifying, can involve singular or multiple compounding events over time, and often include betrayal of a trusted person or institution and a loss of safety. These experiences can mean that ordinary medical procedures, such as asking a patient to undress for an exam, performing a gynecological exam, or even simply checking blood pressure, can be threatening or anxiety-provoking.

Trauma-informed care (also known as trauma-sensitive or trauma-aware care) is one way to provide effective and compassionate care for patients who may be trafficked or are otherwise traumatized. The Substance Abuse and Mental Health Services Administration (SAMHSA) defines trauma-informed care as a program, organization, or system that:

1. Realizes the widespread impact of trauma and understands potential paths for recovery
2. Recognizes the signs and symptoms of trauma in clients, families, staff, and others involved with the system
3. Responds by fully integrating knowledge about trauma into policies, procedures, and practices

...
4. Seeks to actively resist re-traumatization

Trauma-specific intervention programs generally:

- Acknowledge the survivor’s need to be respected, informed, connected, and hopeful regarding their own recovery
- Address the interrelation between trauma and symptoms of trauma such as substance abuse, eating disorders, depression, and anxiety
- Collaboratively work with survivors, family and friends of the survivor, and other human services agencies in a manner that will empower survivors and consumers

Other trauma-informed approaches support the need for fundamental safety throughout the health care system (e.g., the Sanctuary model. Information at http://sanctuaryweb.com/) Additional intervention information can be found on the SAMHSA website: http://www.samhsa.gov/nctic/trauma-interventions

Taking a History

No evidence-based recommendations guide assessment and evaluation processes in the context of known or suspected human trafficking. Practice-based evidence, however, has been used to generate recommendations for screening and inquiry in these situations.

Survivors of trauma report that disclosure may be more likely if health care providers are perceived to be knowledgeable about abuse and violence, nonjudgmental, respectful, supportive, and use a trauma-sensitive approach to evaluation and treatment.6

Given the impact of adverse childhood experiences and other traumatic exposures on later physical and mental health and well-being, some experts recommend embedding specific questions about trafficking after a trusting relationship has been established. The length of time it takes to establish such a relationship a victimized individual varies widely—it may take just a few minutes or require multiple separate visits.

Once rapport has been developed with the patient, and confidentiality (along with its limits) has been communicated clearly, questions about possible human trafficking and other forms of coercive control can be asked.

If you suspect human trafficking, try to start with indirect questions. Enlist the help of a staff member and/or interpreter who has knowledge of the patient’s language and culture after confirming there is no conflict of interest. Attempt to interview the patient alone without raising suspicions.

Examples of probing questions:
1. Has your identification or documentation been taken from you?
2. What are your working or living conditions like?
3. Where do you sleep and eat?
4. Can you leave your job or situation if you want?
5. Do you sleep in a bed, on a cot or on the floor?
6. Do you have to ask permission to eat, sleep or go to the bathroom?
7. Can you come and go as you please?
8. Have you ever been deprived of food, water, sleep or medical care?
9. Are there locks on your doors and windows? Do you lock them or does someone else? (e.g., so you cannot get out)
10. Have you been threatened if you try to leave?
11. Have you been physically harmed in any way?
12. Is anyone forcing you to do anything that you do not want to do?
13. Has anyone threatened your family?

Physical Examination

A physical examination should be performed carefully and sensitively, guided by the clinical presentation and by information gleaned from the history. In cases involving sexual violence and other forms of trauma, forensic evaluation and evidence collection should be offered when appropriate (e.g., if the most recent sexual assault has occurred within 120 hours of presentation, and with the patient’s consent or in conjunction with mandated reporter responsibilities).6

Forensic evaluation and evidence collection should be performed using approved sexual assault evidence collection kits. If available in your area, sexual assault/forensic nurse examiners, who have specific training in forensic evaluation and evidence collection, should be used.

Abuse and violence, including that resulting from human trafficking, should be suspected when any of these physical findings are noted:

- Bilateral or multiple injuries
- Evidence consistent with rape or sexual assault
- Evidence of acute or chronic trauma, especially to the face, torso, breasts, or genitals
- Pregnant woman with any injury, particularly to the abdomen or breasts; vaginal bleeding; or decreased fetal movement
- Body tattoos that are the mark of a pimp or trafficker
- Occupational injuries not linked clearly to legitimate employment

Documentation

Clinicians should carefully and accurately document all findings in the medical record, not only because this is standard care for all patients, but because such data may be valuable if the patient seek legal redress. The patient’s medical history, physical findings, and oral disclosures, should be documented in writing, in an unbiased manner, using direct, unaltered quotes from the patient, to the extent possible. Photographic documentation of physical findings may be appropriate, with the patient’s permission. Images should contain the patient’s face and the injury or lesion measured with a ruler or other common object (such as a coin). Additional photographs can document close up views of each relevant injury or lesion. Patients should be informed that they have a right to refuse photographic documentation altogether or to restrict photographic documentation to certain specific areas if they so choose. The words “suspected human trafficking” as a finding, diagnosis, or problem should be included in the chart when appropriate.6

The Clinical Goal

The clinician’s goal should not be to “get a disclosure” from a patient suspected of being trafficked or otherwise abused.6 Instead, the health care provider should work to create a climate that allows every patient to feel safe, secure, cared for, validated, and empowered to disclose if he or she chooses. Disclosure might occur later if the patient does not feel ready to disclose in the immediate clinical setting. Therefore, each individual clinical encounter should be viewed as a step on a pathway to safety for at-risk patients.
Risk Assessment and Safety Planning

If trafficking has been disclosed, clinicians can help the patient by:

• Having the patient assess his or her own personal risk
• Making an independent judgment about that risk and communicating this opinion to the patient
• Talking about safety planning
• Making referrals to appropriate case management services for more detailed safety planning and case management

Patients may minimize or deny the danger they face, hence clinicians should note the following "red flag" signs of heightened risk:

• More frequent or severe threats or assaults
• New or increasingly violent behavior by the perpetrator
• Increasing or new threats of homicide (or suicide by the trafficker) if the patient discloses
• The presence or availability of lethal weapons in the residence

Detailed safety planning and related case management are best undertaken by those with specific expertise in this area: advocates, social workers, and case managers.

These expert partners are generally equipped with the time and expertise needed to address each patient’s immediate, short-term, and long-term needs, and to arrange for appropriate follow-up with known and trained community-based resources.

Safety and Training of Health Care Workers

Since traffickers may be involved in various criminal enterprises, protecting health care workers is essential. The following suggestions include general safety measures as well as those specifically applicable to health care workers who may help victims of human trafficking:12

• Build relationships with local police or security personnel
• Review emergency plans periodically
• Restrict after-hours access
• Improve lighting at entrances and parking areas
• Install security cameras, mirrors, and panic buzzers
• Restrict access to all doors except the main entrance
• Preprogram 911 into all phones

Quality improvement programs of various kinds can create and support policy changes regarding safety and high quality health care systems. One training program specific to human trafficking is SOAR to Health And Wellness Training. (SOAR is an acronym for Stop, Observe, Ask and Respond to Human Trafficking.) The program is available at https://www.acf.hhs.gov/otip/training/soar-to-health-and-wellness-training

Legal Considerations

"Health care providers are not required to — and in fact may not — report suspected instances of human trafficking that involve a competent adult victim, without the patient's express consent."16

Clinicians should not involve law enforcement and/or social service providers (e.g., housing/shelter services, legal services, and case management) without first obtaining the explicit informed consent of the patient, or unless otherwise required under relevant law. These laws may include mandatory reporting laws for children, disabled adults, elders, and others. Privacy breaches can erode the provider-patient relationship and remove the autonomy patients deserve and need for making informed decisions for their own safety and future. As in cases of intimate partner violence, therefore, health care providers must follow the lead of the patient and respect the decisions of those who decide not to contact law enforcement or accept referrals to other services.

Domestic as well as international victims of human trafficking have specific legal rights under federal and state law, but may not know of these rights or be in a position to exercise them. If the patient is willing, a referral to law enforcement, attorneys, or legal service providers is appropriate.

Conclusion

Clinicians, as "first contacts," have an imperative to make a difference for their patients. Human trafficking poses many health risks, including physical injury, death, and/or long-lasting psychological damage. In the absence of validated tools to screen for victims of human trafficking, health care providers may need to consider implementing universal methods and policies to create a safe environment for all patients. Clinicians who encounter a trafficked person or other exploited individual have a unique opportunity to provide essential medical care and supportive referral options that may be an individual’s first step towards safety and recovery.

National Resources

Coalition Against Trafficking in Women
www.catwinternational.org

Human Rights Watch
www.hrw.org

SOAR to Health and Wellness
acf.hhs.gov/endtrafficking/initiatives/soar

HEAL Trafficking
https://healtrafficking.org

Caring for Trafficked Persons: A Guide for Health Providers
http://publications.iom.int/books/caring-trafficked-persons-guidance-health-providers

National Human Trafficking Resource Center (NHTRC)
Hotline (24/7): 1-888-373-7888
http://traffickingresourcecenter.org/

Polaris Project
www.polarisproject.org
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31. Which of the following is not an industry in which people who are trafficked often work?
A. Restaurants
B. Legal affairs
C. Agriculture
D. Fisheries

32. What are two common methods used by human traffickers to control and manipulate their victims?
A. Sleep deprivation and exposure to loud music
B. Isolation from family members and debt bondage
C. Lawsuits and other legal action
D. Large payments for illicit or illegal behaviors

33. Which statement best describes the use of the terms “victim” and “survivor” in relation to human trafficking?
A. Both terms may be appropriate depending on the circumstances of the person being trafficked.
B. The term “victim” is preferred because it emphasizes how much those being trafficked suffer.
C. The term “survivor” is preferred because it recognizes the emotional processes that can occur even after trafficking has stopped.
D. Neither term is preferred because both are emotionally loaded—the preferred term is “person being trafficked.”

34. In a study of people involved in sex trafficking, what percentage had at least one encounter with a health care provider while they were being trafficked?
A. 18%
B. 5%
C. 88%
D. 95%

35. Which statement best summarizes the finding of several studies about the role or behaviors of health care providers relating to human trafficking?
A. Most providers have been educated about the problem of human trafficking but do not have time to adequately address the needs of trafficked patients.
B. Many providers are unprepared to identify trafficking victims when they are encountered in clinical settings.
C. Many providers can identify trafficking victims, but they often do not follow up with appropriate referrals to external sources of support.
D. Most providers are not exposed to the issue of human trafficking in medical school.

36. What is one possible way to increase the identification in health care settings of people who are being trafficked?
A. Install security cameras in waiting rooms.
B. Train non-clinical staff (e.g., receptionists, security guards) in ways to identify human trafficking and to communicate with medical personnel.
C. Require all patients to fill out a questionnaire about human trafficking.
D. Screen all patients using a validated tool for identifying human trafficking.

37. If a patient suspected of being trafficked does not speak English, or is not comfortable speaking English, the best approach is:
A. Have the patient’s friend or relative translate for them.
B. Use printed materials that have been translated into other common languages.
C. Use a professional interpreter or someone unrelated to the patient.
D. Use a language translation phone application to communicate.

38. Before asking a patient questions of a patient about human trafficking, it’s best if clinicians:
A. Establish a rapport with the patient and separate the patient from any people who may have accompanied him or her on the visit.
B. Use a written questionnaire to screen for potential signs of human trafficking.
C. Perform a thorough physical examination.
D. Check the patient’s immigration status using an online database.

39. Which statement best describes the clinical goal in relation to instances of human trafficking?
A. To elicit a disclosure of trafficking so that legal action can be taken against the perpetrator.
B. To stick to the normal responsibilities for the diagnosis and treatment of physical ailments and illnesses.
C. To create a climate that allows every patient to feel safe and empowered to disclose if he or she chooses.
D. To provide photo documentation that can be used as evidence in any legal actions taken by the patient.

40. Why is it important, in the context of human trafficking, to train all clinical and non-clinical staff on safety and security procedures?
A. Because victims of human trafficking are often violent.
B. Because traffickers may be involved in various criminal enterprises and present a threat of violence.
C. Because victims of human trafficking are more likely to be infected with contagious diseases.
D. To conform with local or state laws related to the treatment of victims of human trafficking.
VERIFIED CERTIFICATES AND LEARNER RECORDS

1. **Important:** To ensure accurate record keeping and reporting, your personal information entered at the beginning of the assessment should match your license record.

2. **Why we collect this info:** We use this information to uniquely identify each individual who successfully completes our activities and verify learner records for professional credentialing.

**FIRST NAME:** John  
**LAST NAME:** Doe

**EMAIL ADDRESS:** johndoe@email.com  
**PHONE NUMBER:** (517) 335-0918

**LICENSE TYPE/DEGREE:** MD  
**LICENSE STATE:** MI  
**LICENSE NUMBER:** 4301987654  
**LICENSE EXPIRATION DATE:** 01/31/2021

**MAILING ADDRESS:** 1234 Cherry Street  
**CITY:** Lansing  
**STATE:** MI  
**ZIP CODE:** 48909

**SPECIALTY:** Internal Medicine

**LICENSE NUMBERS FORMATS:**

- **Allopathic Physicians (MD's)**  
  10 numbers starting with 4301 followed by six numbers.  
  Example 4301987654.

- **Osteopathic Physicians (DO's)**  
  10 numbers starting with 5101 followed by six numbers.  
  Example 5101456789.

RENEWING A LICENSE

**Renewal Process**

The Michigan Board of Medicine and Michigan Board of Osteopathic Medicine and Surgery requires all physicians renew their license every three years in one of three licensure cycles ending December 31st for (DO's) and January 31st for (MD's).

**CME for Renewal**

- **MD:** Each medical doctor is required to complete 150 hours of continuing education in courses or programs approved by the board of which a minimum of 75 hours must be earned in courses or programs designated as Category 1 programs. This includes three (3) credits on Pain and Symptom Management; one (1) credit on medical ethics; and training on identifying victims of Human Trafficking. For CME information access [https://www.michigan.gov/documents/lara/LARA_Medicine_CE_Brochure_5-11_376428_7.pdf](https://www.michigan.gov/documents/lara/LARA_Medicine_CE_Brochure_5-11_376428_7.pdf)

- **DO:** Each osteopathic physician is required to complete 150 hours of continuing medical education in courses or programs approved by the board of which at least 60 hours of the required 150 hours must be earned in osteopathic related courses or programs designated as either Category 1 (accredited) or Category 3 (residency) programs. This includes three (3) credits on Pain and Symptom Management and training on identifying victims of Human Trafficking.

For CME information access [https://www.michigan.gov/documents/lara/LARA_Osteopathic_CE_Brochure_4-11_376433_7.pdf](https://www.michigan.gov/documents/lara/LARA_Osteopathic_CE_Brochure_4-11_376433_7.pdf)

**Turn in information online or by following these easy steps:**

1. Complete the customer information, self-assessment & activity evaluations on the next page.
2. Tear out the page.
3. Mail the form in the self-addressed envelope.

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SELF-ASSESSMENT ANSWER SHEET

2020 MICHIGAN MEDICAL LICENSURE PROGRAM

To Receive Credit: Please ensure information entered matches your license record and all required fields are accurately completed. For help see the previous page.

FIRST NAME: ______________________ LAST NAME: ______________________

EMAIL ADDRESS: ______________________ PHONE NUMBER: ______________________

LICENSE TYPE/DEGREE: ______________________ LICENSE STATE: ______________________ LICENSE NUMBER: ______________________ LICENSE EXPIRATION DATE: ______________________

MAILING ADDRESS: ______________________ CITY: ______________________ STATE: ______________________ ZIP CODE: ______________________

SPECIALTY: ______________________

$50.00
ENTIRE PROGRAM

CHECK: ☐ [ ]

CHECK ENCLOSED MADE PAYABLE TO INFORMED

OR

CREDIT CARD: ☐ VISA ☐ MASTERCARD ☐ AMEX ☐ DISCOVER

NAME ON CARD: ______________________ TOTAL COST: ______________________

CARD NUMBER: ______________________ SECURITY CODE: ______________________ EXPIRATION DATE: ______________________ BILLING ZIP CODE: ______________________

MARK ONE ANSWER PER QUESTION

OPIOID ANALGESICS IN THE MANAGEMENT OF ACUTE AND CHRONIC PAIN (PG. 41-42)

1. A ☐ B ☐ C ☐ D ☐ 
2. A ☐ B ☐ C ☐ D ☐ 
3. A ☐ B ☐ C ☐ D ☐ 
4. A ☐ B ☐ C ☐ D ☐ 
5. A ☐ B ☐ C ☐ D ☐ 
6. A ☐ B ☐ C ☐ D ☐ 
7. A ☐ B ☐ C ☐ D ☐ 
8. A ☐ B ☐ C ☐ D ☐ 
9. A ☐ B ☐ C ☐ D ☐ 
10. A ☐ B ☐ C ☐ D ☐

LGBTQ CULTURAL COMPETENCY (PG. 69)

21. A ☐ B ☐ C ☐ D ☐ 
22. A ☐ B ☐ C ☐ D ☐ 
23. A ☐ B ☐ C ☐ D ☐ 
24. A ☐ B ☐ C ☐ D ☐ 
25. A ☐ B ☐ C ☐ D ☐ 
26. A ☐ B ☐ C ☐ D ☐ 
27. A ☐ B ☐ C ☐ D ☐ 
28. A ☐ B ☐ C ☐ D ☐ 
29. A ☐ B ☐ C ☐ D ☐ 
30. A ☐ B ☐ C ☐ D ☐

A CLINICIAN’S GUIDE TO RECOGNIZING AND RESPONDING TO HUMAN TRAFFICKING (PG. 78)

31. A ☐ B ☐ C ☐ D ☐ 
32. A ☐ B ☐ C ☐ D ☐ 
33. A ☐ B ☐ C ☐ D ☐ 
34. A ☐ B ☐ C ☐ D ☐ 
35. A ☐ B ☐ C ☐ D ☐ 
36. A ☐ B ☐ C ☐ D ☐ 
37. A ☐ B ☐ C ☐ D ☐ 
38. A ☐ B ☐ C ☐ D ☐ 
39. A ☐ B ☐ C ☐ D ☐ 
40. A ☐ B ☐ C ☐ D ☐

PROGRAM CODE: MI621CME

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Please complete the activity survey on the following page.

81
**ACTIVITY EVALUATION(S)**
For each of the objectives determine if the activity increased your:  
A Competence  
B Performance  
C Outcome  
D No Change

### OPIOID ANALGESICS IN THE MANAGEMENT OF ACUTE & CHRONIC PAIN:

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<tbody>
<tr>
<td>1. Assess patients in pain and identify the range of therapeutic options for managing pain.</td>
<td>O</td>
<td>O</td>
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<td>O</td>
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<tr>
<td>2. Safely and effectively manage patients on opioid analgesics in the acute and chronic pain settings.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
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<tr>
<td>3. Recognize when to incorporate emergency opioid antagonists into prescribing practice.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
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<tr>
<td>4. Identify and manage patients with opioid use disorder.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
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<tr>
<td>5. Please identify a specific change, if any, you will make in your practice related to safe prescribing of opioid analgesics.</td>
<td></td>
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6. What do you see as a barrier to making these changes? ____________________________

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### LGBTQ CULTURAL COMPETENCY:

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<tbody>
<tr>
<td>7. Recognize healthcare issues in this population.</td>
<td>O</td>
<td>O</td>
<td>O</td>
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<tr>
<td>8. Discuss sexual preferences and/or gender identity with patients.</td>
<td>O</td>
<td>O</td>
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<tr>
<td>9. Identify transgender health issues and available resources.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
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<tr>
<td>10. Please identify a specific change, if any, you will make in your practice related to cultural competency for LGBTQ patients.</td>
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11. What do you see as a barrier to making these changes? ____________________________

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### A CLINICIAN’S GUIDE TO RECOGNIZING AND RESPONDING TO HUMAN TRAFFICKING:

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<tbody>
<tr>
<td>12. Recognizing the types, venues and identify victims, adult and minor, of human trafficking in health care environments.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>13. Techniques for identifying and assisting patients that are victims of human trafficking.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>14. Utilization of referrals to appropriate multi-disciplinary professionals to assist victims of human trafficking.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>15. Please identify a specific change, if any, you will make in your practice related to human trafficking.</td>
<td></td>
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</table>

16. What do you see as a barrier to making these changes? ____________________________

---

### PROGRAM EVALUATION:

17. The program was balanced, objective & scientifically valid.  
A Yes  
B No  
If no, please explain: ____________________________

18. Do you feel the program was scientifically sound & free of commercial bias or influence?  
A Yes  
B No  
If no, please explain: ____________________________

19. How can this program be improved? ____________________________

20. Based on your educational needs, please provide us with suggestions for future program topics & formats? ____________________________
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PROGRAM INCLUDES:

3 CREDITS
PAIN & SYMPTOM MANAGEMENT*

2 CREDITS
ETHICS*

1 CREDIT
HUMAN TRAFFICKING*

MANDATORY CME REQUIREMENTS:
• All physicians (MD/DO) must complete a minimum of three (3) credit hours in Pain and Symptom Management.
• All (MD, DO, PA) must complete training on identifying victims of Human Trafficking.
• All (MD) must complete a minimum of one (1) credit hour in Medical Ethics.
*Complete these courses to satisfy any and all of these CME requirements.

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