HealthPartners®

Prescribing Opioids and Managing Pain

Guidelines and Best Practices

May 2020

Contents

Overview and Course Objectives

Minnesota and Wisconsin CME requirements for opioid prescribing

All physicians (MD/DO) licensed by the Wisconsin Medical Examining Board who have a current DEA registration to prescribe controlled substances must earn a minimum of two (2) AMA PRA Category 1 Credits or equivalent via a board-approved course on opioid prescribing.

In 2019, the Minnesota Legislature also passed a law that requires individuals with licenses with the authority to prescribe controlled substances to complete at least two hours of continuing medical education (CME) on best practices in prescribing opioids and controlled substances, to be completed between January 1, 2020 and December 31, 2022. To receive continuing education credits, the education must include the following content:

- Best practices in prescribing opioids and controlled substances; and
- Non-pharmacological and implantable device alternatives for the treatment of pain and ongoing pain.

About this self-study

This self-study, which HealthPartners developed using internal and external content, includes content that meets the CME requirements for both Wisconsin and Minnesota. Our self-study is a supplementary tool designed to cover the main points of the guidelines. It is not intended to serve as a replacement for review of the opioid prescribing guidelines available through Minnesota and Wisconsin. Please familiarize yourself with the guidelines for the state in which you practice.

Read the Minnesota opioid-prescribing guidelines.

Read the Wisconsin opioid-prescribing guidelines.

Course objectives

After completing this self-study, you will be able to:

- Define the dimensions and phases of pain.
- Identify risk factors for opioid abuse disorder.
- Describe the range and role of non-pharmacological and implantable device alternatives to treat pain.
- Apply evidence-based guidelines when prescribing opioids and controlled substances for acute pain, post-acute pain and chronic pain.
- Adapt pain management practices as needed to align with best practices.

Accreditation

HealthPartners is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

HealthPartners Office of Continuing Medical Education designates this enduring material for a maximum of 2.0 AMA PRA Category 1 Credit(s).™ It was approved for CME from May 15, 2020-May 15, 2023. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

How to obtain credit for this course

To receive AMA PRA Category 1 Credit(s)™ for completing this course:

- Complete the online module for this course through your myLearning account. Be sure to finish the entire session.
- Complete the quiz by accessing the link toward the end of the myLearning tool. This link also includes the course evaluation and instructions to claim CME credit.
- When you finish the post-test, return to the myLearning and advance to the next slide. Click EXIT to end the session and log your session as completed in myLearning.

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None of the above content developers and reviewers have indicated a potential conflict of interest in relation to the development or review of this activity.

There is no commercial support for this activity.

Part 1: Fundamental Concepts of Pain

The International Association for the Study of Pain defines pain as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage."

Why do people experience pain?

The medical history (subjective) contains a useful description of the patient's illness, which includes the chief complaint, history of present illness (HPI), relevant review of systems, and past family, social and medical history.

When a patient complains of pain, there may be a variety of reasons. Pain has many dimensions, including:

- Nociceptive—resulting from actual tissue damage or potentially tissue-damaging stimuli, such as a bruise, burn or inflammation.
- Neuropathic—pain caused by a lesion or disease of the central or peripheral somatosensory nervous system
- Psychogenic—physical pain that is caused, increased, or prolonged by mental, emotional, or behavioral factors, such as anxiety or depression.
- Opioid tolerance—In opioid tolerance, the opioid receptor system is heightened or sensitized during use. Individuals experiencing opioid tolerance will become more sensitive to noxious stimuli and need increased doses of an opioid to achieve the same analgesic effect or will experience increasing pain with stable opioid doses.

Pain phases

There are a number of different ways to classify phases of pain.

Acute pain is pain that occurs 1 to 4 days after severe injury/medical condition, and up to 7 days after major surgical procedure. The cause of the pain is usually known. The pain improves with analgesics or with treatment of the underlying cause. The pain is biologically useful (allows for rest and time for the area to heal).

Post-acute pain is between 4 and 45 days after an injury, medical condition, or surgical procedure or trauma.

Chronic pain is pain lasting longer than 45 days after acute event or beyond normal expected time of tissue healing. It is a complex condition involving neurological, emotional and behavioral changes that often affect a patient's well-being, quality of life and ability to function in their social roles. Chronic pain has little useful biological purpose.

For more information about chronic pain, please see "What is Chronic Pain?" in the Minnesota Opioid Prescribing Guidelines.

Pain assessment

Pain is a subjective experience influenced by many factors, including those that are of a psychological as well as physical nature. Although pain is universal, there are no physical signs or laboratory findings that uniformly reflect a patient's experience, and good communication with the patient is the most important factor in a complete assessment.

The most comprehensive assessments are biopsychosocial assessments, which factor in mood, social support, prior experience, biomechanical considerations and physiology of the origins of the chronic pain. Such an assessment should be completed for all patients who have chronic pain that significantly interferes with their life. While it can be challenging to summarize a patient's experience with pain objectively, validated tools can assess and document a patient's functional status, quality of life and pain intensity. It is important to follow the results of these assessments as treatment is initiated and continued for chronic pain management. For additional information about these biopsychosocial assessments, please see:

- The sidebar on page 14 and 15 in Part 3.
- The Resources section under "Standardized pain assessment tools."
- The "Biopsychosocial assessment" section of the Minnesota Opioid Prescribing Guidelines.

Part 2: Modalities for Pain Management

There are many options for treating pain. These include non-pharmacologic treatments, non-opioid pharmacologic treatments, opioid therapies, multidisciplinary treatments, and implantable devices.

Non-pharmacologic treatments

Several non-pharmacologic treatments have been shown to be effective in managing chronic pain.

Examples include:

- Exercise therapy
- Group support activities
- Spinal manipulation
- Acupuncture
- Yoga
- Physical therapy
- Mindfulness and stress reduction
- Clinical hypnosis
- Eye Movement Desensitization and Reprocessing (EMDR)
- Cognitive behavioral therapy
- Patient education

Non-opioid pharmacologic options

Non-opioid analgesics and adjuvant analgesics are equally or more effective than opioid analgesics for most pain types, with potentially less risk of harm to the patient. Non-opioid medications for pain include acetaminophen, anticonvulsants, antidepressants, glucocorticosteroids, muscle relaxants and antispasmodics, nonsteroidal anti-inflammatory drugs (NSAIDS), and low-dose naltrexone. Appropriate prescribing of these options will depend on the patient's diagnosis, symptoms, pain type, comorbid conditions and overall risk for adverse drug events.

Multidisciplinary therapy

Multidisciplinary pain management includes a combination of the non-pharmacologic and non-opioid therapies mentioned above, as well as interventional treatment (e.g., diagnostic injections or therapeutic injections). Interdisciplinary pain rehabilitation programs combine multiple therapies at one location. Additional information on multidisciplinary therapy can be found in this section of the MN Opioid Prescribing Guidelines.

Opioid therapy

Opioid medications act on opioid receptors to produce morphine-like effects, including pain relief, respiratory depression, and mood changes/euphoria. Types of opioid medications include opiates, semi-synthetic opioids, and synthetic opioids.

- Opiates are naturally occurring chemicals found in the opium plant. Examples include morphine, codeine and thebaine (the precursor for oxycodone and buprenorphine).
- Semi-synthetic opioids are man-made chemicals derived from naturally occurring opiates. Examples include diacetylmorphine (heroin), oxycodone, and hydrocodone.
- Synthetic opioids mimic the effects of opiates but are not derived from the opium poppy. Examples include methadone, fentanyl, and tramadol.

In 2017, a total of 56,935,332 persons, or 17.4% of the population, filled at least one prescription for an opioid—with an average of 3.4 opioid prescriptions dispensed per patient. A total of 191,146,822 opioid prescriptions were dispensed by retail pharmacies; the total opioid prescribing rate was 58.5 prescriptions per 100 persons. From 1999 to 2018, more than 232,000 people died in the United States from overdoses involving to prescription opioids. Overdose deaths involving prescription opioids were more than four times higher in 2018 than in 1999.

The current opioid crisis calls on health care providers to embrace a cautious new approach to opioid prescribing that emphasizes safety. Improving the way opioids are prescribed through clinical practice guidelines can ensure patients have access to safer, more effective chronic pain treatment while reducing the number of people who misuse or overdose from opioids.

Implantable device alternatives (neurostimulation)

With recent innovations, multiple neurostimulation options are now available for a variety of neuropathic pain conditions. Spinal cord stimulation, peripheral nerve stimulation, dorsal root ganglion stimulation and subcutaneous field stimulation are all neurostimulation therapies that treat neuropathic pain in certain body regions or specific body parts by delivering electricity to the spinal cord or peripheral nervous system. All neurostimulation therapies are designed to treat neuropathic rather than nociceptive pain.

Spinal cord stimulation

In spinal cord stimulation, electrical current is delivered to the nervous system by electrodes placed within the epidural space inside the spinal canal. Spinal cord stimulation (SCS) has been used to successfully treat neuropathic extremity pain for the past 25 years. SCS is FDA-approved for intractable pain in the trunk or extremities. Spinal cord stimulation can be very effective for neuropathic neck and arm pain or low back and leg pain from post-surgical spine syndrome (ICD-10 M96.1). However, it is helpful for both upper and lower body pain simultaneously.

Peripheral nerve stimulation

With peripheral nerve stimulation, an wire-like electrode is implanted next to a peripheral nerve to target focal pain associated with that specific peripheral nerve. For example, peripheral nerve stimulation can be used to target a specific peripheral nerve for an isolated upper extremity neuralgia. However, it is not be appropriate for bilateral, diffuse neuropathic arm pain.

Dorsal root ganglion stimulation

With dorsal root ganglion stimulation, electrical leads are threaded into the area of the dorsal root ganglion, a bundle of sensory nerves within the epidural space. This therapy is particularly helpful for areas that are difficult to reach with SCS and cause peripheral nerve pain—such as in the hand, chest, abdomen, foot, knee or groin. Dorsal root ganglion (DRG) is FDA-approved only for lower extremity complex regional pain syndrome and is considered off-label for any other indication.

Subcutaneous field stimulation

Subcutaneous field stimulation involves placing electrodes in the subcutaneous tissues overlying a region of pain such as the lumbar paraspinal area. It is not helpful in diffuse pain and is no longer covered by insurance.

Part 3: Safe and Effective Prescribing of Opioids

This section provides general clinical recommendations on patient safety, outlines prescribing recommendations by pain phase, and discusses prescribing guidelines for specific populations. Information on the Prescription Drug Monitoring Program is also included in this section.

General clinical recommendations for patient safety

The current opioid crisis calls on health care providers to embrace a cautious new approach to opioid prescribing that emphasizes safety. The following recommendations, taken from the Minnesota Opioid Prescribing Guidelines, address key safety concerns that are relevant to all pain phases. Additional information about these recommendations are provided further in this section of the Minnesota Guidelines and later in this self-study.

1. Check the Prescription Monitoring Program (PMP) whenever prescribing an opioid for acute pain, prior to each refill during the post-acute pain period, prior to initiating and routinely during chronic opioid analgesic therapy (COAT). More information on the Prescription Drug Monitoring Program is provided on page 11.

2. Avoid providing concurrent prescriptions of opioids and benzodiazepines or other sedative-hypnotic medications. Use extreme caution when prescribing opioids to patients using benzodiazepines or other sedative-hypnotic medications on an on-going basis. Advise patients intermittently using benzodiazepines to stop use while taking opioids for acute pain. Frankly discuss the risks of concomitant use with the patient and conduct close follow-up during the period in which opioids are used.

3. Address concomitant use of benzodiazepines and other sedative hypnotics for patients receiving COAT. Patients receiving potentially dangerous drug combinations require care coordination and medication management. Obtain a patient release of information and contact the relevant prescribers.

4. Consider prescribing naloxone to patients with concomitant use.

5. Avoid prescribing opioids for (a) fibromyalgia; (b) headache, including migraine; (c) self-limited illness, such as a sore throat; (d) uncomplicated, acute neck and back pain; and (e) uncomplicated, acute musculoskeletal pain. Complicated, acute back, neck or musculoskeletal pain is objectively verifiable and includes pain accompanied by severe or rapidly progressive neurological deficit, evidence of infection, new cancer diagnosis or metastasis or fracture. Provide appropriate non-opioid alternative pain management for conditions not indicated for opioid analgesic therapy.

6. Use extreme caution when prescribing opioids to patients with comorbid conditions that may increase risk of adverse outcomes. Comorbid conditions associated with elevated risk include chronic obstructive pulmonary disease, congestive heart failure, obstructive sleep apnea, history of alcohol or substance use disorder, advanced age, or renal or hepatic dysfunction.

7. Assess pregnancy risk in all women of childbearing age prior to prescribing an opioid.

8. Avoid prescribing opioids to pregnant women. Educate pregnant women about the known risks of opioids to both the mother and the fetus.

9. Provide patient education about opioid use and pain management beginning with the first opioid prescription. Engage the patient in shared decision-making. Carefully describe the risks and benefits associated with opioid analgesic use and repeat patient education on an ongoing basis. For additional HealthPartners-specific patient education materials, please see the Resources section.

10. Provide safety information about safe use, safe storage and disposal with every opioid prescription. Provide information, both oral and written, to patient, family members and caregivers, if appropriate.

11. Educate patients receiving opioids that the medications impact their ability to safely operate motor vehicles. Advise patients who are initiating opioid therapy or who just had a dose increase not to operate heavy machinery, including driving a car, or participate in activities at home that may be adversely effected by the sedating effect of opioids. In Minnesota and Wisconsin, it is illegal to operate a motor vehicle when the person is under the influence of alcohol or under the influence of a controlled substance.

12. Advise patients, family members and caregivers to dispose of opioids not used as soon as discontinuation of therapy.

13. Monitor patients for opioid-related adverse outcomes, especially when opioid use continues for more than a couple of days. Adverse outcomes associated with longer term use include central sleep apnea, endocrine dysfunction, opioid-induced hyperalgesia, opioid use disorder and signs of acute toxicity

14. Naloxone is a pure opioid antagonist that reverses opioid overdose when administered correctly. Consider co-prescribing naloxone to patients at elevated risk for overdose who receive opioid analgesia.

Prescribing recommendations by pain phase

The following section includes information on opioid initiative, dosage/titration, duration, followup and discontinuation—as organized by pain phases.

For acute pain

A growing body of evidence demonstrates that opioid use is a risk factor for long-term use. The risk relationship is dependent on exposure; the greater amount of initial exposure to opioids, the greater the amount of risk of chronic use. (Shah, 2017).

Use caution when prescribing opioids even in with acute pain, given the potential for patients to experience harm related to any new opioid prescription. Avoid using opioids to treat pain in the acute phase unless the severity of the pain warrants the use of opioid analgesia and non-opioid alternatives are ineffective or contraindicated. As ICSI explains, risk assessment is important but it does not change the indication for opioids; if opioids are not indicated, they should not be given—even in a low-risk person.

Prescribe the lowest effective dose and duration of opioids when indicated for acute pain. Most experts agree that acute pain caused by minor trauma or outpatient procedures can be effectively managed with a <100 MME total dose per acute pain episode, or <3 days supply of opioids. Limiting the dose and duration to cover only the expected duration of acute pain severe enough to warrant opioid therapy should minimize the unintentional initiation of long-term opioid use and reduce the quantity of opioid pills available for diversion.

Long-acting and extended-release (ER/LA) opioids should NOT be used for acute pain. Opioids should be prescribed only when necessary, in the lowest effective dose, and for the shortest duration necessary. Taking opioids for acute pain is associated with a greater likelihood of long-term opioid use. Further, a

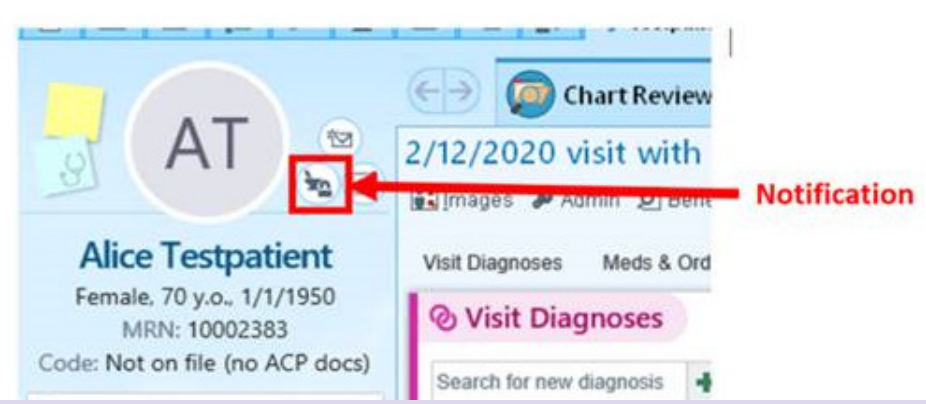
CONTINUED ON PAGE 12

The Prescription Drug Monitoring Program

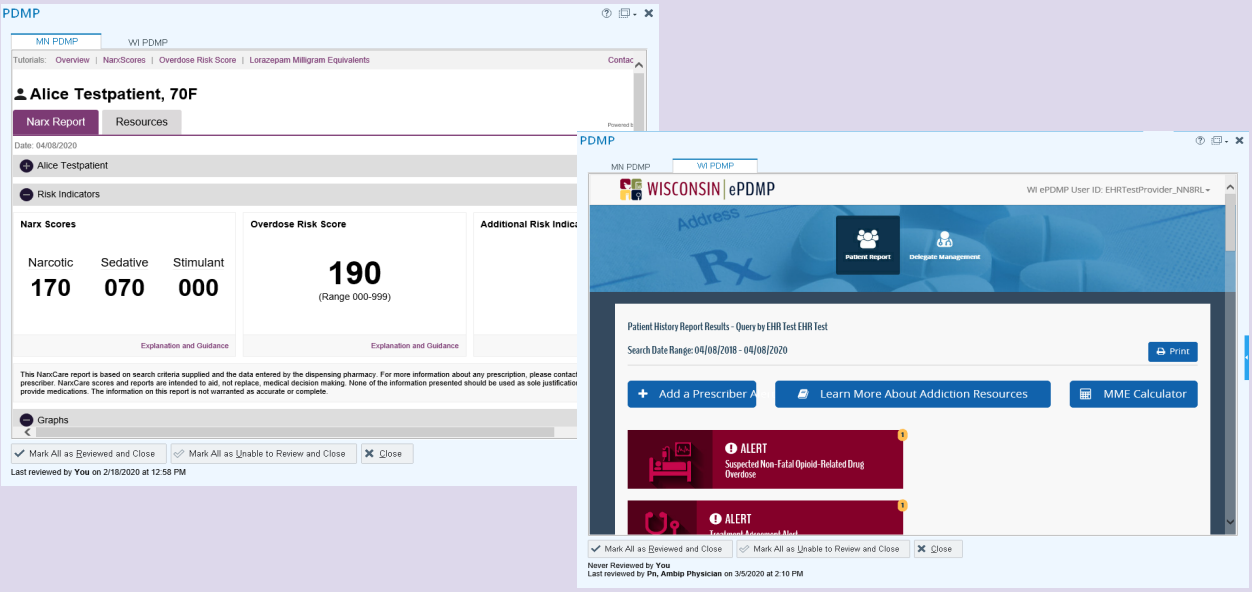
A prescription drug monitoring program (PMP) is an electronic database that tracks controlled substance prescriptions in a state. PMPs can help identify patients who may be misusing prescription opioids or other prescription drugs and who may be at risk for overdose. Based both on the growing body of evidence that supports the effectiveness of PMPs in states where use is mandatory and on expert consensus, the PMP is an effective patient safety tool for providers and should be used whenever opioid therapy is considered.

Links to the Minnesota Prescription Drug Monitoring Program and Wisconsin Drug Monitoring Program are listed in the Resources section under “Prescription Drug Monitoring Programs.”

In the HealthPartners Family of Care Epic in the Storyboard, the PMP can be accessed for both Minnesota and Wisconsin using this icon notification below. Additional training and information can be found in the Tip Sheet produced for training.



This will bring you directly into the State systems without having to log-in separately to the free-standing websites. Note: you must be registered with the state systems with your DEA to make this connection functional. The screenshots below show Minnesota’s and Wisconsin’s PDMPs.



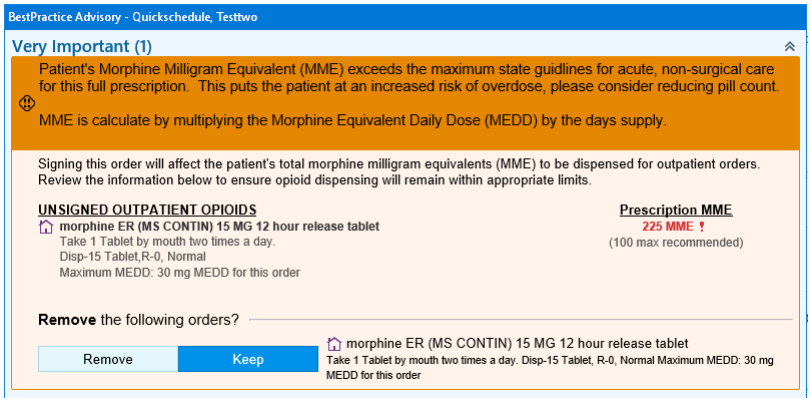
greater amount of initial opioid exposure (i.e., higher total dose, longer duration prescription) is associated with greater risks of long-term use, misuse, and overdose. For dental pain, use appropriate non-opioid medication to manage acute oral or facial pain in patients presenting to a medical facility with no dentist available. Do not prescribe opioids to patients without an examination and diagnosis by a dental provider. Refer to a dental provider and assist with access to follow-up when possible.

As noted by ICSI, limiting dispensing to 3 days or to no more than 100 MME total:

- Reduces any surplus of opioid prescriptions left in medicine cabinets and thus diversion and exposure to others.
- Requires patients who are still having pain to follow up with their clinician sooner, allowing the clinician to assess other options for pain management or other complications of the initial acute event. At that point, the clinician can also screen for concerning signs/symptoms of opioid use disorder.
- Helps minimize excess opioid exposure, which can put the patient at risk of future opioid use disorder.

The Wisconsin Opioid-Prescribing Guidelines also note, "When prescribing opioids, physicians should consider writing two separate prescriptions for smaller amounts of opioids with specific refill dates, rather than a single large prescription. Most patients do not fill the second prescription, thus limiting opioid excess in a patient's home and potential misuse."

For patients presenting in acute pain who are already on chronic opioids, opioid tolerant or on methadone, consider prescribing an additional 100 MME maximum for this acute episode, with a plan to return to their baseline dose as soon as possible.



In situations where doses exceed guidelines, the HealthPartners Epic system will fire a Best Practice Advisory (BPA) to prompt decision making. (See screenshot above.)

For post-acute pain

The post-acute pain period—from 4 to 45 days following an acute event—is the critical timeframe to halt the progression to chronic use of opioids. Clinicians should increase assessment of the biopsychological factors associated with opioid-related harm and chronic opioid use during this period. For more information about conducting a biopsychosocial assessment, please see page 14. This interval also presents challenges, given that each patient's recovery trajectory is dependent on numerous factors.

Three common and influential **factors that can predict the progression** from acute pain to chronic pain:

- Pain catastrophizing
- Fear avoidance
- Depressed mood

A note on postsurgical pain: The MN Health Collaborative, activated by ICSI, developed a call to action on postoperative prescribing for adult opioids. The goal of these prescribing recommendations is to provide postoperative pain management that is procedure-specific and more effectively tailored to the individual patient's need. The guidance expands and enhances the current guidance within the MN Opioid Prescribing Guidelines. Read the MN Health Collaborative guidance document.

For chronic pain

Avoid using opioids to treat patients with chronic pain. There are no proven benefits of opioids for patients with chronic pain, but there are proven harms. Until further knowledge emerges, it is prudent to avoid initiating opioids in these patients. Pain that has no easily identifiable pain generator, and no cure, is a daunting problem in medicine and causes great suffering. These patients try many modalities of care and too often end up on chronic opioid therapy. Preventing chronic exposure to opioids is easier and preferable to having to taper patients off opioids at a later time It will directly benefit patients and will indirectly have a positive effect on illicit opioid use by decreasing the chance of diversion. For more information on tapering, please see page 20.

A subset of patients with chronic pain may benefit from chronic opioids. Patients already on chronic opioids cannot be easily detoxed from opioids, and this recommendation should not be taken as advice to detox existing chronic pain patients on long-term opioids.

When considering opioid therapy for chronic pain, providers should take the following steps:

- Assess risks to patient safety by conducting a physical examination, mental health screening, prescription drug monitoring program (PDMP) check, and urine drug tests
- Set goals for improvements in pain and function with the patient
- Check that non-opioid therapies are tried and optimized
- Discuss risks and benefits with the patient
- Establish criteria for stopping or discontinuing opioid therapy

When initiating opioid therapy for chronic pain:

- Prescribe immediate-release opioids instead of ER/LA opioids
- Prescribe the lowest effective dosage, below 50 MEDD
- Reevaluate benefits and harms with patients within 1 to 4 weeks of starting opioid therapy or of dose escalation. Patients who do not have pain relief with opioids at 1 month are unlikely to experience pain reliefwithopioids at 6 months.

Why not start with ER/LA opioids? The CDC notes the following reasons:

1. Patients may experience better pain control if they take opioids when needed rather than on a scheduled basis.
2. Taking opioids on a scheduled basis may contribute to tolerance and dose escalations.

Providers should use caution when prescribing opioids at any dosage. In general, avoid combining IR with ER/LA opioids.

According to the Wisconsin opioid-prescribing guidelines, “During chronic opioid therapy, patients should be seen at least every 3 months, more frequently if they demonstrate higher risk.”

Biopsychosocial Assessment

The following recommendations, presented in the Minnesota Opioid Prescribing Guidelines, address key components of the biopsychosocial assessment and should be tailored according to the pain phase. It is expected that providers will increase the number, frequency and depth of the assessments as a patient continues opioid therapy and that the treatment plan is tailored accordingly. Note that certain recommendations are indicated for a specific pain phase. The relevant pain phase is provided after the recommendation.

1. Assess and document pain, function and quality of life using validated (if available) or standardized assessment tools. Validated tools are included in the Resources section under "Standardized pain assessment tools" (page 25).
   - » Assess and document the patient's presentation of pain at every clinical encounter. Documentation of pain should include use of the pain scale as a relative tool and concordance of the patient's assessment of his or her own pain with the prescriber's objective observations. [All pain phases]
   - » Assess and document the patient's diminished physical function at every clinical encounter. Use functional assessments—in concordance with pain assessments—to guide patient-provider conversations about pain management and psychosocial factors that may contribute toward the experience of pain. [All pain phases]
   - » Assess and document how the patient's pain and diminished function affect quality of life prior to initiating chronic opioid analgesic therapy (COAT) and at every follow-up visit for pain management. [Chronic Pain]
2. Review the patient's medical record prior to continuing opioid analgesic therapy in order to understand why opioids were initially prescribed. [Post-Acute Pain; Chronic Pain]
3. Assess and document other medical conditions that may complicate pain symptoms and/or treatment. [All pain phases]
4. Screen patients for depression and anxiety using a brief, validated tool at each follow-up visit for pain management.
   - » If screening tools indicate an active mental health condition, provide aggressive treatment concomitant to analgesia strategies. [Post-Acute Pain]
   - » Refer patients with depression or anxiety that has not been previously treated or successfully treated for appropriate psychotherapy. [Chronic Pain]
5. Assess and document suicidality in every setting for every initial opioid prescription. Reassess suicidality in patients receiving COAT at least once a year. [Acute Pain; Chronic Pain]
6. Screen patients for substance use disorder (SUD) using a brief, validated tool. Examples are included in the Resources section under "Screening tools for substance use disorders." When the patient screens positive, conduct a structured interviewing using the current Diagnostic and Statistical Manual of Mental Disorders (DSM) criteria or refer to a specialist for diagnosis.
   - » Screen patient for SUDs one week after the acute event, or at the first opioid refill request. If assessment indicates elevated risk for substance abuse, review and determine tapering strategy. [Post-Acute Pain]

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- » Assess patients for substance use prior to initiating COAT. If assessment indicates an active SUD, provide the patient evidence-based treatment or refer to a specialist. Continue to screen for SUDs for the duration of the opioid therapy. [Chronic Pain]

7. Assess patient for fear avoidance tendencies or pain catastrophizing using a brief, validated tool. If assessment indicates the presence of fear avoidance and elevated risk for chronicity, consider referring patient to a physical therapist or a pain psychologist. [Post-Acute Pain; Chronic Pain]
8. Assess patients for a history of trauma or abuse if depression or anxiety screening tool scores remain elevated during initial treatment. If a patient has a history of trauma or abuse, clinicians should not initiate COAT. Refer patients with a history of trauma or abuse who have not been previously treated for appropriate psychotherapy. [Post-Acute Pain; Chronic Pain]
9. Discuss with the patient sources and/or targets of anger or injustice related to his or her pain. Consider using the Injustice Experience Questionnaire (IEQ) when a patient's pain is related to an occupational injury or motor vehicle accident. [Post-Acute Pain; Chronic Pain]
10. Ask patients about their beliefs and attitudes about pain, its origin and what it represents during an initial clinic visit. [Chronic Pain]

Urine drug screening

Performing urine drug screens is a vital component of prescribing initial and chronic opioids. Understanding collection and interpretation of urine drug screens is essential for safe prescribing of opioids and other controlled substances. Frequency of testing is dependent on provider preference and patient risk factors; however, many experts believe an annual urine drug screen is the optimal standard of practice for patients on chronic opioid therapy. Sample collection sites include urine, blood, hair, saliva and nails. Urine is most commonly used because it is easy to collect, has longer detection times when compared with blood, and is more accurate because the metabolites of substances evaluated in the urine concentrate are as much as 1000 times that found in blood.

There are two types of urine drug screens: initial screening and confirmatory testing.

Initial screening

Initial screening is commonly performed by immunoassay as a point of care test. Immunoassays use antibodies to detect the presence of a specific drug or class of metabolites by utilizing reagent. They test for the major drug classes required by DHHS guidelines: amphetamines, cannabinoids, cocaine, opiates, and PCP. They are convenient, widely accessible and quick. However, they are non-specific, resulting in a high frequency of false positive and false negative results.

- False positives can occur due to cross-reactivity with substances that have similar characteristics.
- False negatives can occur often because the concentration required to trigger a positive result is high.
- Semi-synthetic and synthetic opioids are often not detected by immunoassays. They typically only detect non-synthetic opioids. Thus, commonly present normetabolites such as noroxycodone and norhydromorphone are not usually reactive on immunoassays.

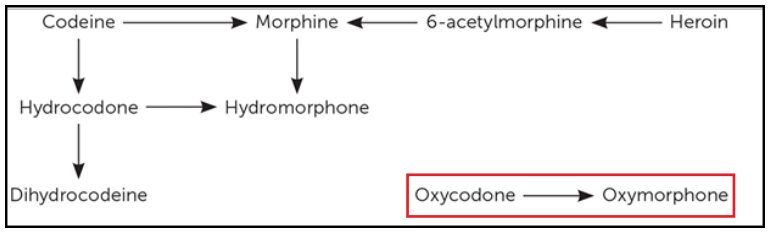
Confirmatory testing

- Confirmatory testing is helpful to validate positive initial screening as well as clarify unexpected negative results. Typically confirmatory tests use gas or liquid chromatography and mass spectrometry to identify molecular structures. They are quantitative, highly reliable and more specific than immunoassay. They often have a lower concentration required, so false negatives are unlikely. Additionally, false positives are unlikely in confirmatory testing due to the specificity of the method for identification of unique structures using mass spectrometry. Confirmatory tests are very specific for detecting presence of a drug or its metabolite. However, it is important to be aware that the level detected does not correlate with dose, frequency or amount of use.
- Having an understanding for navigating unexpected results is essential when interpreting urine drug screen results. When assessing if a sample is valid, temperature, pH and urine creatinine levels are all important. The expected urine temperature is 90-100° F within 4 minutes of collection. A sample may be adulterated if pH is <3 or >11. Low urine creatinine or specific gravity levels can result in false negative results. If urine creatinine is <20 mg/dL, it is considered a diluted sample and can be a sign of adulteration. A level <5 mg/mL is inconsistent with a human urine sample. Expected specific gravity is 1.002-1.030. False positives can occur with medications such as diphenhydramine, dextromethorphan, quinine, rifampin and ofloxacin. Ingestion of poppy seeds can also lead to positive results.

Opioids by Type

Type of Opioid	Examples
Synthetic	• Methadone • Fentanyl • Tramadol
Semi-synthetic	• Heroin • Hydrocodone • Hydromorphone • Oxycodone • Oxymorphone • Buprenorphine
Non-synthetic	• Morphine • Codeine • Thebaine

Review of Opioid Metabolism



Adapted from Am Fam Physician. 2019 Jan 1;99(1):33-39. This reviews the metabolism of commonly used opioids. Note that the metabolism pathways are unidirectional and that oxycodone is part of a separate metabolism pathway.

Length of Time Opioids Can Be Detected in Urine

Type of Opioid	Length of time detected in urine
Codeine	48 hours
Heroin (morphine)	46 hours
Hydromorphone	48-96 hours
Methadone	72 hours
Morphine	48-72 hours
Oxycodone	48-96 hours
Propoxyphene	6-48 hours

Adapted from Mayo Clin Proc. January 2008; 83(1):66-76.

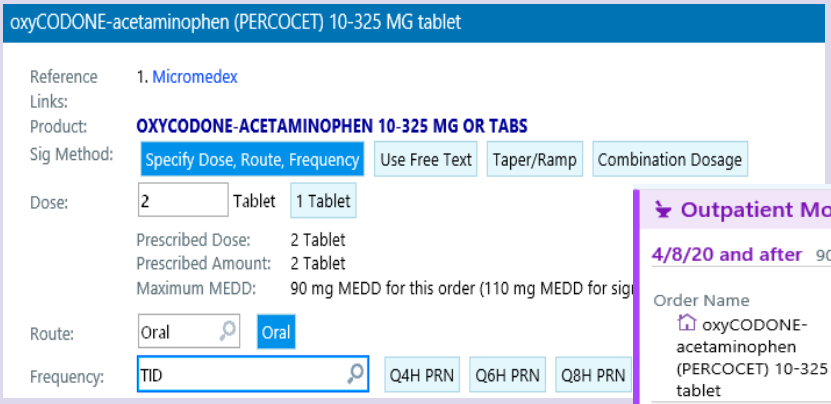
Morphine Equivalent Daily Dose

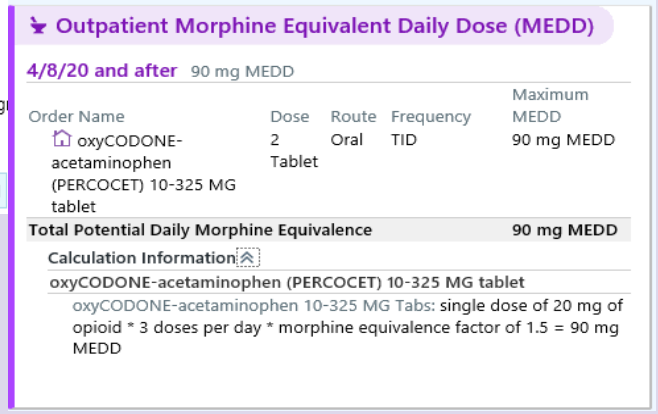
Morphine milligram equivalents (MME) is an opioid dosage's equivalency to morphine. The MME/day metric (also called morphine equivalent daily dose, or MEDD) is often used as a gauge of the overdose potential of the amount of opioid that is being given at a particular time. Calculating the daily dosage of opioids, as well as the total MME for the prescription, helps identify patients who may benefit from closer monitoring, reduction or tapering of opioids, prescribing of naloxone, or other measures to reduce risk of overdose.

The HealthPartners Epic system will automatically calculate the Morphine Equivalent Daily Dose (MEDD) for the prescription being written. An alert will also fire for a new, non-surgical prescription that exceeds the total prescription of 100 MME.

General guidance:

- Our HealthPartners Pain specialists would consider <15 MEDD as the goal. If a patient cannot be tapered further, it is optimal to change the patient to a buprenorphine product.
- Prescriptions >50 MEDD put the patient at potential harm and should be avoided. Naloxone should be co-prescribed.
- Prescription >90 MEDD should be avoided with consideration for tapering the patient down in their dose and also co-prescribing naloxone.





If you are unable to access the HP calculator, use the following method to calculate MEDD:

1. Determine the total daily amount of each opioid the patient takes.
2. Convert each opioid to its MEDD by multiplying the daily dosage for each opioid by its conversion factor.
3. Add all opioid MEDD together.

CONTINUED ON PAGE 18

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Morphine Equivalent Daily Dose

Here is an MEDD calculation example:

A new patient is suffering from chronic lower back pain. For his pain, he takes extended-release oxycodone 20 mg BID. What is the daily MEDD your patient has been prescribed?

The first step is to determine the total daily amount of each prescription.

20 mg X 2 = 40 mg oxycodone/day

Oxycodone has a conversion factor of 1.5.

40 mg X 1.5 = 60 MEDD

Dosages >=50 MEDD per day increase risk for opioid-related harms.

The CDC Opioid Prescribing Guideline Mobile App contains an MEDD calculator. Select the link for information about how to get the app for your mobile device.

Calculating morphine milligram equivalents

Type of Opioid (doses in mg/day except where noted)	Conversion Ratio
Codeine	0.15
Fentanyl transdermal (in mcg/hr)	2.4
Hydrocodone	1
Hydromorphone	4
Methadone	
» 1-20 mg/day	4
» 21-40 mg/day	8
» 41-60 mg/day	10
» 61-80 mg/day	12
Morphine	1
Oxycodone	1.5
Oxymorphone	3

Precautions for Calculating MEDD

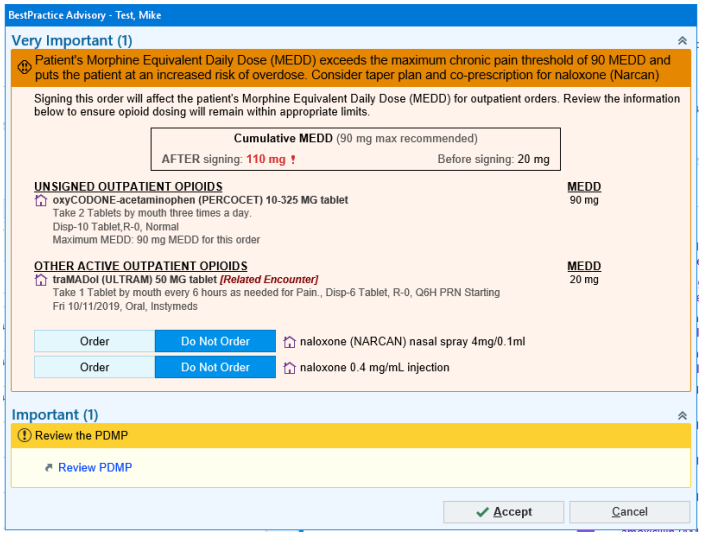
- Do not use the calculated dose in MEDD to determine dosage for converting one opioid to another.
- When opioid prescriptions are changed, the dosage of the opioid to which the patient is being converted should be lower than the calculated MEDD of the current opioid regimen to avoid unintentional overdose caused by incomplete cross-tolerance and individual differences in opioid pharmacokinetics. Consult the medication label.
- **Use extra caution** with methadone, transdermal fentanyl, and buprenorphine:
  - » Dosing methadone is complicated because of its long and unpredictable half-life, as well as its association with QTc prolongation and potential cardiac arrhythmia.
  - » Transdermal fentanyl is dosed in mcg/hr instead of mg/day, and absorption is affected by heat and other factors.
  - » The relation between dosage and overdose risk is different for buprenorphine. The thresholds of 50 and 90 MEDD do not apply, and there isn't a calculation to identify equivalency. Conversion factors for drugs used as part of medication-assisted treatment for opioid use disorder should **not** be evaluated using opioid dosage indexes intended for chronic pain. Therefore, **buprenorphine is not included in the morphine milligram equivalents table above**.

Ongoing treatment of pain with opioids

Those already taking opioids for chronic pain require careful monitoring and prevention of dose escalation or other adverse events. It is reasonable to suggest a voluntary and slow taper for patients on chronic opioids. If the use of continued opioids is unavoidable, we urge providers to consider the following issues.

Every effort should be made to keep chronic opioid using patients under 90 MEDD. Prescribers should consider seeking pain medicine consultation if greater than 90 MEDD is reached and ensure patient has a co-prescription of naloxone.

The HealthPartners Epic system will fire a Best Practice Advisory (BPA) to prompt decision making for these situations. (See screenshot at right.)



According to the CDC, "Clinicians should evaluate patients to assess benefits and harms of opioids within 1 to 4 weeks of starting long-term opioid therapy or of dose escalation. Clinicians should consider follow-up intervals within the lower end of this range when extended-release and long-acting (ER/LA) opioids are started or increased or when total daily opioid dosage is ≥50 MEDD. Shorter follow-up intervals (within 3 days) should be strongly considered when starting or increasing the dosage of methadone.

At follow up, clinicians should assess benefits in function, pain control, and quality of life using tools such as the three-item "Pain average, interference with Enjoyment of life, and interference with General activity (PEG)" Assessment Scale and/or asking patients about progress toward functional goals that have meaning for them. Clinicians should also ask patients about common adverse effects such as constipation and drowsiness, as well as asking about and assessing for effects that might be early warning signs for more serious problems such as overdose (e.g., sedation or slurred speech) or opioid use disorder (e.g., craving, wanting to take opioids in greater quantities or more frequently than prescribed, or difficulty controlling use). Clinicians should ask patients about their preferences for continuing opioids, given their effects on pain and function relative to any adverse effects experienced."

Both ICSI and the CDC recommend checking the state prescription monitoring program routinely, using a validated functional assessment scale, alongside pain assessments, and referring a patient with chronic pain to a mental health professional.

Among patients on chronic opioid therapy, the risk of an overdose increases with the average daily dose. For example, one study found that compared with doses <20 MEDD, those taking higher doses were at an increased risk for overdose. It is not clear if the correlation between overdose and prescription dosing reflects patient differences or the impact of higher opioid doses.

Opioids with benzodiazepines

Patients with substance use disorder or benzodiazepine use are at higher risk of overdose if given opioids. Three studies of fatal overdose deaths found evidence of concurrent benzodiazepine use in 31 to 61 percent of decedents (Gomes, 2011; Dasgupta, 2015; Nuckols, 2014). Emergency visits and substance abuse treatment admissions involving the combined use of these two drug classes are also increasing (Jones, 2015). Therefore, clinicians should be extremely cautious about concomitant prescribing and use among their patients. The Wisconsin Guidelines note, "Benzodiazepines triple the already high increases in respiratory depression and annual mortality rates from opioids. If they are used concurrently, clear clinical rationale must exist."

Check with the PMP for current benzodiazepine use frequently and ask about intermittent use when prescribing opioid analgesic therapy. If opioids are prescribed, a dose less than 50 MME/day is recommended to minimize adverse events. Alternative pain management strategies should also be used for these patients.

Tapering chronic opioid therapy

The goal of opioid tapering is to improve the risk benefit profile for patients on chronic opioid analgesic therapy (COAT). Changes in co-occurring conditions, diagnoses, medications, functional status and the duration of opioid therapy affect the risk-benefit analysis.

Patient readiness is also a factor in the risk benefit analysis. Pay careful attention to the patient's fears about tapering their opioid dose, and encourage patients to identify ways in which the clinic can provide support. When the risk benefit analysis indicates that a taper will improve the patient's safety profile, open communication throughout the process is important for success. Forced tapers are not recommended, and are not supported by evidence. For a taper to be successful, the clinician and patient should approach the process as a long-term project to be worked on together.

Clinical recommendations for tapering

The Minnesota Guidelines as well as the CDC offer detailed information about tapering protocols and processes. (Links to these guidelines can also be found in the REsources section.)

The following are general clinical recommendations:

1. Discuss tapering and discontinuing use in advance of initiating COAT and with each dose increase. Clinicians and patients should identify situations in which a taper is indicated and document those situations in the treatment plan or agreement.

2. Routinely discuss tapering or discontinuing COAT with patients, regardless of their risk of harm. Tapering should be addressed at least every three months.

3. Taper opioid therapy to a reduced dose or taper to discontinuation when the risks of continued opioid therapy outweigh benefits. Tapering high-risk patients to less than 50 MME/day is a reasonable initial goal. The taper protocol must be individualized to the patient's circumstances and address all of the biopsychosocial factors that may impact the taper process.

4. Offer non-opioid and non-pharmacological therapies to treat any pain that may re-emerge during the opioid taper and to treat any withdrawal symptoms that occur during the taper. Patients will likely benefit from cognitive behavioral therapy during the taper process.

As the Minnesota Guidelines note, tapering COAT to a reduced dosage or to discontinuation is challenging for both the clinician and the patient. Preparing a patient for a taper takes considerable time. For this reason, it is recommended to routinely discuss tapering with patients at every face-to-face visit, including

when COAT is initiated, or at least every 3 months. Discussing tapering early and often may assist with setting the expectation that COAT should not be continued indefinitely. Clearly communicate about the following issues before initiating a taper and throughout the taper process, while monitoring for signs of opioid use disorder:

- Reasons for tapering opioids
- Taper process
- Pain management during the taper
- Management of withdrawal symptoms

Additional information on tapering can be found at this section of the Minnesota Opioid Prescribing Guidelines as well as on the MN Health Collaborative' s Demystifying Opioids Package.

Prescribing for specific populations

Women of childbearing age

According to the CDC, before being prescribed opioids, women of childbearing age should be counseled on the risks of opioids in pregnancy, including risks to the fetus, counseled on contraception and offered pregnancy testing. Additional information on prescribing for women of childbearing age can be found in this section of the MN Opioid Prescribing Guidelines.

Geriatric patients

ICSI notes that geriatric patients should be assessed for risk of falls, cognitive decline, respiratory malfunction and renal malfunction before receiving opioids. If impairment or risk is detected in a geriatric patient, consider reducing the initial opioid dose by at least 50 percent.

Pediatric patients

With children, pain can be exacerbated by fear and anxiety, emotions that may be more effectively managed in adults. Therefore, there are differences in caring for pediatric patients. An accurate assessment of pain is needed to diagnose conditions and to appropriately guide pain management interventions. Confirming the dosing and frequency of administration of prescribed medications helps to ensure that the child is not at risk for parental diversion. Minnesota's Opioid Prescribing Guidelines recommend that prescribers check the MN PMP for all children prescribed an opioid for acute pain, to also confirm that the child is not at risk for parental diversion.

Co-prescribing of emergency opioid antagonists (naloxone)

According to the CDC, "before starting and periodically during continuation of opioid therapy, clinicians should evaluate risk factors for opioid-related harms. Clinicians should incorporate into the management plan strategies to mitigate risk, including considering offering naloxone when factors that increase risk for opioid overdose, such as a history of overdose, a history of substance use disorder, higher opioid dosages (≥50 MEDD), concurrent benzodiazepine use, or sleep apnea (or other causes of sleep-disordered breathing), are present." An anticoagulant prescription is not a factor that increases the risk for opioid-related harms.

According to the Wisconsin opioid-prescribing guidelines, the recommended dose is 0.4 mg for IM or intranasal use, with a second dose available if the first is ineffective or wears off before EMS arrives. Family members can be prescribed naloxone for use with the patient.

CONTINUED

Consider prescribing naloxone to the following populations at high-risk of opioid overdose (this list includes risks from both the Wisconsin and Minnesota guidelines, which differ slightly):

- Individuals with substance use disorder
- Individuals concomitantly using benzodiazepines
- Individuals on COAT with an acute injury
- Individuals with a past overdose
- Individuals with respiratory insufficiency, especially sleep apnea
- Individuals who were recently incarcerated with a history of substance abuse.
- Clinical depression
- Evidence of increased risk by other measures (behaviors, family history, PDMP, urine drug screen, risk questionnaires)

Other patient populations who are at elevated risk of opioid-related harm, especially when prescribed long-term opioid therapy, include:

- Pediatric patients
- Geriatric patients
- Individuals referred to addiction specialists, pain medicine specialists or mental health providers. These patients may be at risk for overdose during care transitions
- All patients receiving COAT

More information about naloxone is available on this section of the Minnesota Guidelines. (Scroll down to find the section on naloxone.)

Use of the Patient-Provider Agreement

Patient Provider Agreements (PPAs), also called the Controlled Substance Agreement in the HealthPartners system, are typically written treatment plans that identify the clinician and patient's roles and responsibilities related to initiating long-term opioid therapy. Clinicians should approach initiating the PPA as a means to educate the patient about best practices for opioid use. In addition, the PPA may serve as a diagnostic tool to identify concerns as the patient continues his or her opioid therapy. Review the agreement with the patient at regular intervals determined by the patient's risk profile. In general, review the agreement with the patient at least annually.

Components of an effective PPA include:

- Clearly defined roles and responsibilities for both the clinician and the patient
- Requirements related to other pain medications
- One physician/one pharmacy
- Consent to disclose information to or discuss care with other prescribers identified in the Prescription Monitoring Program (PMP)
- Agree to take the medication as prescribed/no early refills
- Patient responsibility for safeguarding the prescription and supply, including planning ahead so that supply does not end on weekend or holiday
- Required reporting of side effects

CONTINUED

- Required appointments and screenings
- An exit strategy for when it is determined that harms outweigh the benefit of continued COAT
- Situations in which opioids will be discontinued or doses tapered (e.g., if treatment goals are not met, opioids are no longer needed, or adverse events put the patient at risk) to improve patient safety (CDC, 2016a).
- Training of family members, friends, or caregivers in naloxone administration
- Referral or evaluation of OUD if patient becomes unable to follow the terms of the agreement, or the provider or patient become concerned about OUD.

Assessing and addressing risks of addiction in management of pain

Risk assessment

Patient factors that have been associated with opioid risk disorder include:

- Substance use disorder, including tobacco use disorder
- Family history of a substance use disorder
- Mental health disorder, including depression or posttraumatic stress disorder
- History of legal problems or incarceration
- White race (compared with black race)
- Age younger than 45 years old

Screening

There is no single test or instrument which can reliably and accurately predict those patients not suitable for opioid therapy or identify those who need increased vigilance or monitoring during therapy. At present, screening for opioid abuse includes assessment of premorbid and comorbid substance abuse; assessment of aberrant drug-related behaviors; risk factor stratification; and use of screening tools, such as those included in the Resources section (under "Screening tools for substance use disorders.")

Mitigating risks

Strategies to mitigate risks include ongoing biopsychosocial assessments (page 14), ongoing monitoring through Prescription Drug Monitoring Programs (page 11), urine drug screening (page 15), and completing a patient-provider agreement (page 22). Additional information about screening, diagnosis and treatment of opioid use disorder can be found in MN Health Collaborative's Demystifying Opioids Package document.

According to recent guidelines, when evaluating a high-risk patient, it is important to obtain any previous medical records to know the history of pain complaints, as well as work up and treatment previously performed. In addition, there should be a discussion with the patient about the risks of opioids with sedatives and consider co-prescribing naloxone.

Resources

HealthPartners-specific resources

Patient Education resources

- Learning about Opioids
- Understanding and Managing Pain: What to Expect After Your Surgery
- Managing Pain during Your Hospital Stay
- Managing Pain at Home
- Chronic pain booklet (for patients prescribed opioids)
- Chronic pain booklet (for patients **not** prescribed opioids)

Clinician-directed resources

- Podcasts for Primary Care: Conversations on Medical Overuse
  (Episode 3 discusses the specific patient-clinician conversation of not renewing a prescription for pain medication after elective hop replacement surgery.)
- Pain Management Resources on myPartner

National guidelines on opioid prescribing

- Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016. MMWR Recomm Rep. 2016;65(No. RR-1):1–49.
- U.S. Centers for Disease Control and Prevention. Guidelines for Prescribing Opioids for Chronic Pain, Improving Practice Through Recommendations.

Regional and state guidelines on opioid prescribing

Institute for Clinical Systems Improvement (ICSI). August 2017. Pain: Assessment, Non-Opioid Treatment Approaches and Opioid Management Care for Adults.

Minnesota Department of Human Services. Minnesota Opioid Prescribing Guidelines.

Wisconsin Medical Examining Board. Wisconsin Opioid Prescribing Guideline. January 16, 2020.

MN Health Collaborative. Call to Action: Adult Opioid Postoperative Prescribing.

Prescribing naloxone

Minnesota Department of Health. Expanding Naloxone Access for Preventing Opioid Overdose

» Includes educational resources for clinicians.

Risks of Long-Term Opioid Use and Abuse

Kaye AD, Jones MR, Kaye AM, et al. Prescription Opioid Abuse in Chronic Pain: An Updated Review of Opioid Abuse Predictors and Strategies to Curb Opioid Abuse: Part 1. Pain Physician. 2017;20(2S):S93.

Deyo RA, Hallvik SE, Hildebran C, et al. Association Between Initial Opioid Prescribing Patterns and Subsequent Long-Term Use Among Opioid-Naïve Patients: A Statewide Retrospective Cohort Study. J Gen Intern Med. 2017 Jan;32(1):21-27. doi: 10.1007/s11606-016-3810-3. Epub 2016 Aug 2.

Shah A, Hayes CJ, Martin BC et al. Characteristics of initial prescription episodes and likelihood of long-term opioid use—United States, 2006-2015. CDC MMWR 2017;66:265-69.

CONTINUED

Dosing and MME/MEDD conversions

Centers for Medicare and Medicaid Services. Opioid Oral Morphine Milligram Equivalent (MME) Conversion Factors. Updated: Feb 2018.

U.S. Centers for Disease Control and Prevention. Calculating Total Daily Dose of Opioids For Safer Dosage. Accessed: Jan 2, 2020.

Washington State Agency Medical Directors Group. Opioid Dose Calculator. Accessed: Jan 2, 2020.

Standardized pain assessment tools

Minnesota Department of Human Services. Biopsychosocial Assessment (from MN Opioid Prescribing Guidelines).

Pain Intensity, interference with Enjoyment of life and interference with General activity (PEG) Assessment Scale (Krebs, 2009).

Pain Numeric Rating Scale (Krebs, 2007)

Brief Pain Inventory

Screening tools and algorithms for substance use disorders

MN Health Collaborative. Demystifying Opioids Package. (Includes opioid use disorder algorithms for screening, diagnosis and treatment)

National Institute for Drug Abuse (NIDA) Quick Screen.

Tobacco, Alcohol, Prescription Medication and Other Substance Abuse (TAPS) tool.

Alcohol, Smoking and Substance Involvement Screening Test (ASSIST).

CAGE-AID (Adapted to Include Drugs).

Prescription Drug Monitoring Programs

Minnesota Prescription Drug Monitoring Program.

Wisconsin Prescription Drug Monitoring Program.

Urine drug screening

U.S. Centers for Disease Control and Prevention. Urine Drug Testing.

Information on tapering

Tapering and Discontinuing Opioid Use. Minnesota Department of Human Services. First Edition, 2018. https://mn.gov/dhs/opip/opioid-guidelines/tapering-opioids/

U.S Department of Health and Human Services. Guide for Clinicians on the Appropriate Dosage Reduction or Discontinuation of Long-Term Opioid Analgesics. October 2019.

Institute for Clinical Systems Improvement (ICSI). Pain: Assessment, Non-Opioid Treatment Approaches and Opioid Management Care for Adults. August 2017.

MN Health Collaborative. Demystifying Opioids Package. (Includes frequently asked questions on tapering.)

Centers for Disease Control and Prevention. Module 6: Dosing and Titration of Opioids: How Much, How Long and How and When to Stop?

Post-Test

Please complete the quiz through the myLearning course. We have included the quiz questions here for your reference.

1. Pain has many dimensions. Which of the following is NOT a pain dimension?

a. Psychogenic

b. Neuropathic

c. Proprioceptive

2. Post-acute pain typically occurs at what point after an injury?

a. Immediately after the injury.

b. More than 45 days after the injury.

c. Between 4 and 45 days after the injury.

3. Which of the following is most likely to be picked up by an immunoassay urine drug screen?

a. Methadone

b. Hydrocodone

c. Codeine

d. Oxycodone

4. DY is a 47-year-old female taking morphine ER 60 mg twice daily and tramadol 50 mg every 6 hours. What is her total daily morphine equivalents (morphine equivalent daily dose, or MEDD)? [Note: The conversion factor for tramadol is 0.1.]

a. 150

b. 170

c. 80

d. 140

5. RV, a 59-yr old, is prescribed 30 tablets of oxycodone 5mg every 6 hours for pain as needed for a broken wrist after slipping on the ice. What is the MME of this prescription? [Note: The conversion factor for tramadol is 1.5.]

a. 90

b. 225

c. 140

d. 60

Please read the case study below to answer questions 6, 7 and 8.

Cathy has been having ongoing lower back pain for more than 6 months. She has no noted neurologic deficits or unintentional weight loss. To address her pain, she has tried physical therapy, water aerobics, relaxation therapy and graded exercise, and has tried acetaminophen, naproxen and duloxetine. She has declined consideration of steroid injections. She is a nonsmoker, drinks occasionally, and does not use illicit drugs.

6. Which of the following strategies would be appropriate, considering the patient's present condition and medical history?

a. Administer a PEG assessment to establish a benchmark for pain and function

b. Establish realistic treatment goals.

c. Discuss anticipated side effects of opioid therapy.

d. All of the above.

7. Which of the following would be the most appropriate dosage for opioid therapy for this patient?

a. 10/325 mg of oxycodone/acetaminophen QID

b. 5 mg oxycodone every 6 hours PRN

c. 10 mg extended-release oxycodone BID

8. When should a follow-up visit be scheduled?

a. 3 days

b. Two weeks

c. 3 months

d. As needed

Please read the statement below and then answer questions 9 and 10.

JC is a 36-year-old male being treated for acute pain following motor vehicle accident.

9. Which of the following regimens is appropriate for JC? Select the best answer.

a. Hydrocodone/acetaminophen 5/325 mg; 1 to 2 tablets every 4 hours as needed; quantity = 60

b. MS Contin 15 mg every 12 hours for 3 days

c. Oxycodone 5 mg; 1 tablet every 6 hours as needed for 5 days; quantity= 20

d. Hydromorphone 2 mg; 1 tablet every 4 hours as needed; quantity = 12

10. Which of the following medical issues on JC's problem list would increase the risk of serious adverse events if prescribing opioid analgesics?

a. Obstructive sleep apnea

b. Gastroesophageal reflux disease (GERD)

c. Wolff Parkinson White syndrome

d. Hypothyroidism

11. After a visit with your patient JL, who is on chronic opioid therapy for pain related to multiple myeloma, you receive a call from the patient's wife concerned about the patient's risk of overdose and would like to have naloxone in case something happens. She has not witnessed any concerning use or episodes. Which of the following is the most reasonable option to address her concern?

a. Begin a taper of the patient's opioid medication at the next visit

b. Prescribe naloxone to the patient's wife.

c. Discuss naloxone with JL at the next visit.

d. Reassure JL's wife that the risk of overdose is low.

12. A _____ assessment is the most comprehensive and should be completed for all patients who have chronic pain that significantly interferes with life.

a. Physiological

b. Biopsychosocial

c. Functional

d. Biomechanical

13. Which of the following is an appropriate use of a morphine milligram equivalent table?

a. Calculating an equivalent starting dose for a new opioid when migrating a patient from their current drug.

b. Selecting starting dose of buprenorphine medication-assisted therapy.

c. Prescribing the same opioid administered via a different route.

d. Comparing overdose potential of different opioid agents relative to their potency.

14. Which of the following is considered "multidisciplinary?"

a. Use of acupuncture, antispasmodics and relaxation therapy for irritable bowel syndrome

b. Use of naproxen, lidocaine patch and oxycodone for breakthrough pain for post-herpetic neuralgia

c. Use of mindfulness-based therapy and acceptance and commitment therapy for back pain

15. Spinal cord stimulation therapy is used to treat what type of pain? Select the best answer.

a. Nociceptive

b. Neuropathic

c. Psychogenic

16. Which of the following neurostimulation therapies are best for the hand, chest, abdomen, foot, knee or groin? Select the best answer.

a. Dorsal root ganglion stimulation

b. Subcutaneous field stimulation

c. Spinal cord stimulation

d. Peripheral nerve stimulation

17. Which of the following is NOT a semi-synthetic opioid?

a. Methdone

b. Heroin

c. Oxycodone

c. Hydrocodone

18. Why should clinicians prescribe immediate-release (IR) opioids rather than extended-release/long-acting (ER/LA) opioids when initiating opioid therapy for chronic pain? Select the best answer.

a. Scheduled IR opioid doses are safer than ER/LA opioids.

b. IR opioids do not carry a potential for addiction.

c. Patients may experience better pain control if they take opioids when needed rather than on a scheduled basis.

d. ER/LA opioids can only be prescribed with a DEA waiver.

19. When prescribing opioids for acute pain, clinicians should limit dispensing to 3 days or to no more than 100 MME total because doing so:

a. Reduces any surplus of opioid prescriptions left in medicine cabinets and thus diversion and exposure to others.

b. Requires patients who are still having pain to follow up with their clinician sooner, allowing the clinician to assess other options for pain management or other complications of the initial acute event.

c. Helps minimize excess opioid exposure, which can put the patient at risk of future opioid use disorder.

d. All of the above.

20. A patient's medication list has guaifenesin/codeine combo with 20 mg codeine per dose every 4 hours as needed for cough. You then write a prescription for renal stone pain: oxycodone 5 mg every 6 hours as needed for pain; quantity = 8 tablets. Can you expect to see a Best Practice Advisory (BPA) when signing the oxycodone order?

a. No

c. Yes