Guideline for Prescribing Opioids to Treat Pain in Injured Workers

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INTRODUCTION

The Washington State Agency Medical Director’s Group (AMDG) originally published a guideline for safely prescribing chronic opioid therapy (COT) in 2007 with an update in 2010 (http://www.agencymeddirectors.wa.gov/opioiddosing.asp). Between 2011 and 2012, the Industrial Insurance Medical Advisory Committee and its subcommittee on

KEYWORDS

- Opioids
- Workers’ compensation
- Injured workers
- Chronic pain
- Acute pain
- Surgical pain
- Addiction

KEY POINTS

- Effective use of opioids must result in clinically meaningful improvement in function (CMIF). Continuing to prescribe opioids in the absence of CMIF or after the development of a severe adverse outcome is not medically necessary care in workers’ compensation.
- Chronic opioid therapy should not be prescribed in the presence of current substance use disorder (excluding nicotine) or a history of opioid use disorder, and the prescriber should use caution if there is a history of other substance use disorders.
- Use of chronic opioid therapy requires regular monitoring and documentation, such as screening for risk of comorbid conditions with validated tools, checking the Prescription Monitoring Program database, assessing function, and administering random urine drug tests.
- Patients on chronic opioid therapy who are undergoing elective surgery are more likely to encounter difficulty with postoperative pain control.
- Opioids should be discontinued if treatment has not resulted in CMIF, or the worker has experienced a severe adverse outcome or overdose event.

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The Washington State Agency Medical Director’s Group (AMDG) originally published a guideline for safely prescribing chronic opioid therapy (COT) in 2007 with an update in 2010 (http://www.agencymeddirectors.wa.gov/opioiddosing.asp). Between 2011 and 2012, the Industrial Insurance Medical Advisory Committee and its subcommittee on...
chronic noncancer pain developed this guideline as a supplement to provide information specific to treating injured workers. It is based on the best available clinical and scientific evidence from a systematic review of the literature and a consensus of expert opinion.

Opioids are commonly prescribed for routine musculoskeletal injuries such as sprains and strains, despite a lack of evidence to support this practice. Studies have shown that opioids are being prescribed at higher doses, corresponding to a dramatic increase in accidental deaths. In addition, chronic opioid use is associated with increased risk for other nonfatal adverse outcomes such as nonfatal overdose, dependence, addiction, and endocrine dysfunction. In some cases, the use of opioids for work-related injuries may actually increase the likelihood of disability. Because of the uncertainty of long-term efficacy with opioids, but clear evidence of harms, preventing the next group of workers from developing chronic disability and other opioid-related harms is a key objective of this guideline. The AMDG Guideline and this guideline represent the best practices and universal precautions necessary to safely and effectively prescribe opioids to treat injured workers with chronic noncancer pain. These guidelines are intended for use by health care providers when prescribing opioids and as coverage policy for the department and insurers.

**OPIOID USE IN WORKERS’ COMPENSATION**

**Prevalence**

Over the past decade, there has been a dramatic increase in the use of opioids to treat chronic noncancer pain. Among the workers’ compensation population nationally, the prevalence of opioid use is approximately 32%. In Washington, 42% of workers with compensable back injuries received an opioid prescription in the first year after injury, most often at the first medical visit for the injury. Sixteen percent of those workers were still receiving opioids 1 year after injury.

Opioids are also being prescribed in stronger potencies and larger doses for musculoskeletal injuries. The most potent class of opioids, schedule II, accounted for 43% of all opioid prescriptions in Washington workers’ compensation in 2008, compared with 19% in 1996. During this same timeframe, the average morphine equivalent dose (MED) of schedule II long-acting opioids increased from 88 mg/d to 132 mg/d. The average dose remained relatively steady through 2008 and then declined, likely related to the publication of the AMDG Guideline.

**Impact on Recovery**

In some cases, the use of opioids for work-related injuries may actually increase the likelihood of disability. Receiving more than a 1-week supply of opioids or 2 or more opioid prescriptions soon after an injury doubles a worker’s risk of disability at 1 year after injury, compared with workers who do not receive opioids. Other states have seen similar outcomes, including correlation between large-dose escalations and increasing duration of time loss. Evidence-based guidelines on the management of acute low back pain recommend conservative initial therapies (eg, acetaminophen or nonsteroidal anti-inflammatory drugs [NSAIDs]) rather than opioids in almost all cases.

**Opioid-related Adverse Outcomes**

Recent epidemiologic studies have shown that COT patients receiving greater than 100 mg/d MED have up to 9 times the risk of overdosing compared with those on 20 mg/d, and for every 7 overdoses, one was fatal. These studies further showed that even at doses of 50 to 100 mg/d MED, risk was 2.2 to 4.6 times higher compared...
with doses less than 20 mg/d MED. In addition, COT is associated with significant risk of nonfatal adverse outcomes and the development of tolerance to its analgesic effects. The traditional prescribing practice was to use escalating doses to overcome this effect. However, evidence is accumulating that chronic, high-dose opioid use may lead to the development of abnormal pain sensitivity (opioid-induced hyperalgesia). Dose escalation that does not improve pain and function can lead to increased risk for severe adverse outcomes. These adverse outcomes include inhibition of endogenous sex hormone production, neonatal abstinence syndrome, central sleep apnea, opioid use disorder (as defined in the Diagnostic and Statistical Manual of Mental Disorders 5 or DSM-5 at www.dsm5.org/Pages/Default.aspx), overdose, and death.

**Measuring the Impact of Opioid Use**

Beyond the acute phase, effective use of opioids should result in clinically meaningful improvement in function (CMIF). Providers should track function and pain on a regular basis, using the same validated instruments at each visit, to consistently determine the effect of opioid therapy. The department endorses the Two-Item Graded Chronic Pain Scale as a quick, 2-question tool to track both function and pain when opioids are prescribed (see AMDG Guideline, Appendix C, at www.agencymeddirectors.wa.gov/Files/OpioidGdline.pdf).

CMIF is defined as an improvement in function of at least 30% as compared with the start of treatment or in response to a dose change. A decrease in pain intensity in the absence of improved function is not considered CMIF.

Other validated instruments may also be used to measure functional improvement (see AMDG Guideline, Tools for Assessing Function and Pain at www.agencymeddirectors.wa.gov/Files/OpioidGdline.pdf). The American Chronic Pain Association has created a 10-item Quality-of-Life Scale for people with pain, which helps correlate the Graded Chronic Pain Scale with actual daily activities. Use of the PROMIS Web-based tool (www.nihpromis.org/) may also be helpful in determining the effectiveness of COT. Ultimately, effective COT should result in improved work capacity or the ability to progress in vocational retraining.

Evaluation of clinically meaningful improvement should occur at the 3 following critical decision-making phases:

1. At the end of the acute phase (about 6 weeks following injury or surgery), to determine whether continued opioid therapy is warranted in the subacute phase.
2. At the end of the subacute phase (3 months following injury), to determine whether to prescribe COT.
3. Periodically during COT, to assess impact on function and risk of therapy.

Continuing to prescribe opioids in the absence of CMIF or after the development of a severe adverse outcome is not considered proper and necessary care in the workers' compensation system. In addition, the use of escalating doses to the point of developing opioid use disorder is not proper and necessary care.

**OPIOID PRESCRIBING PRECAUTIONS**

**Opioid Use with Comorbid Substance Use or Mental Health Disorders**

Managing pain in workers with complex medical conditions such as substance use disorder or a mental health condition can be a challenge. Research has shown that patients with substance use or psychiatric disorders, or both, are actually more likely
than patients without these disorders to receive COT.\textsuperscript{23} They are also more likely to have complications such as misuse, abuse, or overdose.\textsuperscript{24,25} Adults with a history of depression, alcohol or other nonopioid drug abuse, or dependence are 3 to 5 times more likely to receive COT.\textsuperscript{26} In addition, nicotine dependence is associated with a greater likelihood of using opioids and at higher doses.\textsuperscript{27}

Among adults with chronic pain, COT use is increasing more rapidly in those with mental health and substance use disorders than in those without these diagnoses. These patients are also more likely to receive schedule II opioids, to receive opioids at higher dosage levels, and to be prescribed sedative-hypnotic medications on a chronic basis, than those without mental health or substance use disorders.\textsuperscript{28}

High-risk COT prescribing practices (high opioid dose, extended COT duration, concurrent use of sedatives/hypnotics) are associated with increased risks of opioid overdose and serious fractures.\textsuperscript{15,29} Unfortunately, patients who receive high-risk COT are also more likely to have high-risk characteristics, including younger age, history of substance abuse and mental disorder, and presence of opioid misuse.\textsuperscript{30}

Because of the increased risk for adverse outcomes from the use of COT in patients with mental health disorders, such as borderline personality disorder, mood disorders (eg, depression, bipolar disorder, anxiety, posttraumatic stress disorder or PTSD), or psychotic disorders, providers should be cautious when prescribing COT for workers with these comorbid conditions. Furthermore, workers with current substance use disorders as defined by DSM (excluding nicotine) should not receive COT. Workers with a history of opioid use disorder should only receive COT under exceptional circumstances.

\textit{Drugs and Drug Combinations to Avoid}

\textbf{Do not use:}
- Parenteral opioids in an outpatient setting
- Meperidine for chronic pain
- Methadone for acute or breakthrough pain
- Long-acting or extended-release opioids (eg, Oxycontin) for acute pain or post-operative pain in an opioid-naive worker

\textbf{Use is not recommended:}
- Carisoprodol (Soma)
- Any combination of opioids with benzodiazepines, sedative-hypnotics, or barbiturates. There may be specific indications for such combinations, such as the coexistence of spasticity. In such cases, a pain specialist consultation is strongly recommended. Consider alternatives such as tricyclic antidepressants or antihistamines to manage insomnia.

\textbf{Use with caution:}
- Over-the-counter acetaminophen with acetaminophen combination opioids (eg, Vicodin, Norco, Percocet, Endocet, Ultracet)
- Tramadol or meperidine in patients at risk for seizures or who are taking drugs that can cause seizures (eg, bupropion, serotonin reuptake inhibitors, tricyclic antidepressants)
- Methadone for pain (Box 1). Because of methadone’s nonlinear pharmacokinetics, unpredictable clearance, and multiple drug-drug interactions, providers should use extreme caution when prescribing this drug for pain. Additional information is available at www.agencymeddirectors.wa.gov/opioiddosing.asp.
Opioids in the Acute Phase (0–6 Weeks After Injury or Surgery)

In general, opioid use for acute pain should be reserved for after surgery, for the most severe pain (eg, pain scores ≥7), or when alternative treatments such as NSAIDs and nonpharmacologic therapies are ineffective. Evidence does not support the use of opioids as initial treatment of back sprain or other strains, but if they are prescribed, use should be limited to short term (eg, ≤14 days).

Preliminary data from the Washington state Prescription Monitoring Program (PMP) have suggested that substantial numbers of newly injured workers received opioids or other controlled substances in the 60 days before injury. For this reason, providers should check the PMP before prescribing opioids for new injuries or occupational diseases.

Providers should:
- Check the state’s PMP (http://pdmpassist.org/content/state-pdmp-websites) with any initial opioid prescription for a new episode of pain.
- Obtain baseline measures of pain and pain interference (function) within 2 weeks of filing a claim.
- Help the worker set reasonable expectations about their recovery and return to work.
- Talk to the worker about safe storage and disposal of opioids and other controlled substances.
Prescribe opioids in multiples of 7-day supply to reduce the incidence of supply ending on a weekend.
Document CMIF and pain with treatment.
Explore nonopioid strategies to treat pain, including early activation.
Use urine drug tests (UDTs), the state’s PMP, and other screening tools in the AMDG Guideline (www.agencymeddirectors.wa.gov/opioiddosing.asp) to ensure controlled substances history is consistent with prescribing record and worker’s report.
Determine preinjury use of controlled substances and help the worker understand that the insurer is not responsible for non-work-related treatment and conditions.
Discontinue opioids after the acute pain episode if clinically meaningful improvements in function and pain have not been achieved.

**Opioids in the Subacute Phase (Between 6 and 12 Weeks)**

With some exceptions, resumption of preinjury activities such as return to work should be expected during this period. Use of activity diaries (http://www.agencymeddirectors.wa.gov/Files/ActivityDiary.pdf) is encouraged as a means of improving patient participation and investment in recovery. Nonpharmacologic treatments, such as cognitive-behavioral therapy, activity coaching, and graded exercise, are also encouraged.\(^\text{13,31}\) If the injury is a sprain or strain, opioid use beyond the acute phase is rarely indicated.

If opioids are to be prescribed for longer than 6 weeks and with the exception of catastrophic injuries, the provider should perform the following best practices:

- Access the state’s PMP to ensure that the controlled substance history is consistent with the prescribing record and worker’s report.
- Document CMIF and pain with acute use.
- Screen worker for depression (eg, patient health questionnaire 9 (PHQ-9) or other validated tools) to identify potential comorbid conditions, which may impact response to opioid treatment. If the worker’s history suggests PTSD, administer the 4-item PC-PTSD screen (www.integration.samhsa.gov/clinical-practice/PC-PTSD.pdf).
- Screen for opioid risk (eg, Opioid Risk Tool, screener and opioid assessment for patients with pain (SOAPP-R), diagnosis, intractability, risk, efficacy (DIRE), or CAGE-AID). If the worker has current substance use disorder (excluding nicotine) or a history of opioid use disorder, opioid use beyond the acute phase is rarely indicated.
- Administer a baseline UDT. If results reveal “red flags” such as the confirmed presence of cocaine, amphetamines, or alcohol, opioid use beyond the acute phase is not indicated (see AMDG Guideline, Appendix D at www.agencymeddirectors.wa.gov/Files/OpioidGdline.pdf). Unless cannabis use disorder is diagnosed, the presence of cannabis on a UDT does not preclude the use of opioids.
- Re-examine and consider discontinuation or taper of concurrent sedative-hypnotics or benzodiazepines.

During the subacute phase, providers should review the effects of opioid therapy on pain and function to determine whether opioid therapy should continue. Opioids should be discontinued during this phase if:

- There is no CMIF when compared with function measured during the acute phase.
- The treatment resulted in a severe adverse outcome.
- The worker has a current substance use disorder (excluding nicotine).
- The worker has a history of opioid use disorder (with rare exceptions).

**Opioids in the Chronic Phase**

If opioids are to be prescribed beyond 12 weeks after injury or after surgery, and with the exception of catastrophic injuries, the provider should document the following:

- CMIF (≥30%) has been established with opioid use in the acute or subacute phase.
- Failure of trials of reasonable alternatives to opioids.
- Signed treatment agreement (pain contract).
- A time-limited treatment plan, addressing whether COT is likely to improve the worker’s vocational recovery (e.g., work hardening, vocational services).
- Consultation with a pain management specialist ([http://app.leg.wa.gov/wac/default.aspx?cite=246-919-863](http://app.leg.wa.gov/wac/default.aspx?cite=246-919-863)) if the worker’s dose is greater than 120 mg/d MED and there is no CMIF. An electronic opioid calculator can be downloaded at [http://www.agencymeddirectors.wa.gov/opioiddosing.asp](http://www.agencymeddirectors.wa.gov/opioiddosing.asp). Additional appropriate consultations are recommended if the worker has a comorbid substance use or poorly controlled mental health disorder.
- Worker has no contraindication to the use of opioids.
- No evidence or likelihood of having serious adverse outcomes from opioid use.

During the chronic phase, providers should routinely review the effects of opioid therapy on function to determine whether opioid therapy should continue. COT focused only on reducing pain intensity can lead to rapidly escalating dosage with deterioration in function and quality of life. Prescribers should also continue to check the PMP and administer UDTs based on risk, in accordance with AMDG recommendations and Department of Health regulations. Because COT is associated with substantial risk for harm, opioid prescribing or dose increases that do not result in CMIF is considered not proper and necessary in the Washington State workers’ compensation system.

Continued coverage of COT will depend on the prescriber documenting the following:

- CMIF is maintained, or pain interference with function score is 4 or less with stable dosing. If COT dose is increased, CMIF must be demonstrated in response to the dose change.
- A current treatment agreement is signed.
- The worker has no relative contraindication to the use of opioids.
- There is no evidence of serious adverse outcomes from opioid use.
- There has been consultation with a pain management specialist if the worker’s dose is greater than 120 mg/d MED and there is no CMIF. An electronic opioid calculator can be downloaded at [http://www.agencymeddirectors.wa.gov/opioiddosing.asp](http://www.agencymeddirectors.wa.gov/opioiddosing.asp). Additional appropriate consultations are recommended if the worker has a comorbid substance use or poorly controlled mental health disorder.
- No aberrant behavior is identified by PMP or UDT.

Prescribers should discontinue opioids if all the above criteria are not met. Please see later discussion of Discontinuing COT.
Opioids for Catastrophic Injuries

Catastrophic injuries, such as severe burns, crush, or spinal cord injury in which significant recovery of physical function is not expected, are exempt from the above coverage criteria. For catastrophic injuries, continued use of COT may be appropriate when the prescriber has documented the following:

- A current signed treatment agreement.
- Stable opioid dose at or less than 120 mg/d MED.
- When opioid dose is greater than 120 mg/d MED, a consultation with a pain specialist is documented before further dose escalation. An electronic opioid calculator can be downloaded at http://www.agencymeddirectors.wa.gov/opioiddosing.asp.
- Worker has no relative contraindication to the use of opioids.
- No evidence of serious adverse outcomes from opioid use.
- No aberrant behavior identified by PMP or UDT.

MANAGING SURGICAL PAIN IN WORKERS ON CHRONIC OPIOID THERAPY

Managing pain in workers on COT who are undergoing elective surgeries presents unique challenges and requires a coordinated treatment plan for pain management before surgery. This coordinated treatment plan requires a collaborative effort involving the surgeon, anesthesiologist, pain management specialist, attending provider (AP), and the worker.

In general, patients on COT will report higher pain scores and manifest more anxiety than other patients. They will also likely require higher opioid doses in the intraoperative and postoperative period. COT patients undergoing surgery have more frequent and more deadly respiratory depressive episodes than opioid-naive patients.

Based on the lack of evidence, there is no consensus on whether to taper chronic opioids before elective surgery.

A preoperative evaluation is recommended, preferably by an anesthesiologist, 1 to 2 weeks before surgery. This evaluation should include the worker’s current opioid dose (both prescribed and actually taken) and a thorough medical history that includes mental health and substance use disorder information. Accurate dosage information is especially important for planning perioperative pain management, yet only 9% of patients taking opioids preoperatively have dosage information in the chart. The evaluator should also check the opioid prescribing history in the PMP. The following recommendations will help manage the workers’ pain and minimize their risk associated with surgery.

Before surgery (preoperatively), the surgeon and AP should:

- Have a coordinated treatment plan for managing surgical pain, including identifying the postoperative opioid prescriber.
- Obtain a preoperative anesthesia consult, as above. Workers on buprenorphine need special anesthesia care and should have a consult at least 2 weeks before surgery.
- Access the PMP and review the worker’s controlled substance history to get accurate information on opioid dose and concurrent medication use. Provider should discuss any apparent discrepancies with the worker.
- Prepare the worker for elective surgery by setting appropriate expectations for pain management. Workers need reassurance that their pain management needs
will be met, and they need to know that their opioid use is expected to return to the preoperative dose, or less, following surgery.

- Consider an opioid taper, but this is not required. Avoid escalating opioid dose before surgery.
- Avoid prescribing new benzodiazepines or sedative-hypnotics.
- Consider a consult with a pain management specialist before surgery for workers on high-dose opioids or who have comorbid mental health or substance use disorder.

Day of surgery (intraoperatively), the anesthesiologist should:

- Use anti-inflammatories, acetaminophen, or both, if not contraindicated.
- Continue preoperative opioids to decrease the risk of withdrawal symptoms and use regional blocks, if appropriate.
- Consider the use of other nonopioid analgesic adjuncts (eg, gabapentin, ketamine, or lidocaine) for opioid-sparing effects.

After surgery (postoperatively), the surgeon or hospitalist and AP should:

- Continue preoperative opioids, with extra analgesia for acute pain via patient-controlled analgesia (PCA) while hospitalized.
- Use care when transitioning from PCA to oral opioids. DO NOT perform a “straight” conversion from intravenous to oral opioid because of a lack of complete cross-tolerance.
- Expect the worker to need more time than other patients to stabilize pain control after transitioning to oral opioids.
- Discharge the worker on the same preoperative opioid regimen and only supplement with short-acting (not extended-release) opioids for postoperative pain.
- Do not prescribe long-acting or extended-release opioids for postoperative pain unless the worker was previously maintained on these drugs.
- Avoid new sedative-hypnotics and benzodiazepines.
- Taper total opioids to preoperative dose or lower by 6 weeks.
- Consult a specialist for workers on high-dose opioids or who have comorbid mental health or substance use disorder, if needed.

DISCONTINUING CHRONIC OPIOID THERAPY

Safety and efficacy of long-term opioid use, particularly in the injured worker population, have not been established. Discontinuation of opioids (Box 2) frequently improves function and quality of life and usually does not lead to increased pain levels. In most cases, it is best to taper opioids off completely.

**Step 1: Discontinuing Opioids in a Community Care Setting**

In most cases, workers who are not on chronic high-dose opioids or who do not have comorbid substance use disorder or a significant mental health disorder may be tapered in a straightforward manner. A gradual taper of approximately 10% per week (see AMDG Guideline, Tapering or Discontinuing Opioids and Appendix H) can be carried out by the AP. Adjuvant agents like clonidine and psychological support such as cognitive behavioral therapy can be provided to assist with the taper process. The AP may also seek consultative assistance from a pain management specialist.
**Step 2: Discontinuing Opioids in an Intensive Setting**

For those workers who have failed step 1 or who are at high risk for failure due to high-dose, concurrent benzodiazepine use, or comorbid substance use or mental health disorder, the prescriber should consider seeking consultative assistance from a pain management specialist, a structured intensive multidisciplinary program (SIMP) provider, or addiction medicine specialist. Adjuvant agents and psychological support can be provided to assist with the taper process. In these situations, formal inpatient detoxification or a 4-week SIMP treatment program may be required.

Because of the lack of high-quality evidence of safety and comparative efficacy, ultrarapid detoxification (eg, within 3 days), using antagonist drugs with or without sedation, is not recommended.

**Additional Services**

If a worker has failed steps 1 and 2 AND meets the DSM-5 criteria for opioid use disorder, referral for addiction treatment through a licensed chemical dependency treatment center should be considered. There are several treatment options available for opioid use disorder. A combination of medication and behavioral therapies has been found to be most successful (Substance Abuse and Mental Health Services Administration Medication-Assisted Treatment for Opioid Addiction in Opioid Treatment Program www.kap.samhsa.gov/products/trainingcurriculums/pdfs/tip43_curriculum.pdf).
SUMMARY

Over the past decade, there has been a dramatic increase in the use of opioids to treat chronic noncancer pain. Opioids are also being prescribed in stronger potencies and larger doses for musculoskeletal injuries. In some cases, the use of opioids for work-related injuries may actually increase the likelihood of disability. Chronic use of opioids is strongly associated with the occurrence of dependence, particularly in the presence of comorbid mental health conditions. In addition to the risk of mortality, COT is associated with significant risk of nonfatal adverse outcomes. Because of all these potential risks, this guideline focuses on carefully assessing the risks and benefits of prescribing opioids for injured workers, particularly if they are being considered for chronic (>3 months) use. In addition, this guideline provides guidance on perioperative use of opioids, an algorithm for tapering COT, and a clear definition of meaningful improvement in function.

REFERENCES


FURTHER READING


