Pain management in primary care: A review of the updated CDC guideline

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Abstract: In 2022, the CDC released an updated clinical practice guideline for prescribing opioids and managing pain in the outpatient setting. This article synthesizes the guideline recommendations and implementation considerations for clinical NP practice.

The International Association for the Study of Pain (IASP) defines pain as “an unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage.” The IASP emphasizes that personal experience and biological, psychological, and social factors shape the pain experience and must be respected. In 2021, an estimated 51.6 million US adults (20.9%) experienced chronic pain and 17.1 million (6.9%) experienced high-impact chronic pain, defined as that which substantially limits life or work activities.

Along with the wide variety of available nonpharmacologic and pharmacologic therapies for its treatment,
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Opioids for Chronic Pain—United States, 2016).8,9 In the CDC Guideline for Prescribing Opioids for Pain—United States, 2016 guideline (recommendation) decreased after the CDC’s publication of its related 2016 guideline (CDC Guideline for Prescribing Opioids for Chronic Pain—United States, 2016).9,10 In 2020, the overall national opioid dispensing rate had fallen to the lowest in 15 years, but a total of more than 142 million opioid prescriptions were still issued that year.10 Misapplication of the 2016 CDC guideline resulted in unintended challenges including reduced patient access to legal prescription opioids, clinician-initiated rapid taper or abrupt discontinuation of opioids, and in some cases, patient dismissal or abandonment.11

The 2021 National Survey on Drug Use and Health reported that among people age 12 years or older, 3.1% (8.7 million people) misused prescription pain relievers (primarily opioids) in the past year. The most common reason given on the survey for patients’ last misuse of prescribed medication (that is, using one’s own medication without a current prescription or at a higher dose or increased frequency than prescribed) was to relieve physical pain.12 Drug overdose deaths involving prescription opioids (natural and semisynthetic opioids and methadone) peaked in 2017 at 17,029, decreased in 2019 to 14,139, and trended back up in 2020 (to 16,416) and 2021 (to 16,706).13 Adding overdoses from heroin and synthetic opioids, the number of deaths in 2021 increases to 80,411.13

Despite the complexities, evaluation and treatment of pain are essential. Whether acute (lasting less than 1 month), subacute (present for 1-3 months), or chronic (lasting more than 3 months), pain may adversely affect physical function, social and psychological well-being, and quality of life, and it can create an economic burden for individuals, the healthcare system, and employers.11 The recently released CDC Clinical Practice Guideline for Prescribing Opioids for Pain—United States, 2022, referred to as the CDC 2022 opioid guideline throughout the remainder of this article, provides guidance for clinicians treating outpatients age 18 years or older and was expanded to include acute and subacute pain in addition to chronic.11 The recommendations do not apply to pain that is related to cancer or sickle cell disease or to patients receiving palliative or end-of-life care. Primary care providers play a critical role in implementing this guideline, as they are often the first point of contact for patients seeking treatment for pain. Emphasis is made that, although the recommendations are evidence-based, they do not replace clinical judgment and individualized patient-centered decision-making.

The CDC 2022 opioid guideline recommendations are categorized as those that typically apply to all persons, such that the recommended course of action is appropriate in most situations (category A), or as those that may not apply to all persons and for which individual decision-making is required (category B).11 With category B, the CDC acknowledges that choices that do not align with the recommendations will be appropriate for some patients. Additionally, the evidence supporting the recommendations is categorized as follows:

- type 1 evidence: evidence from randomized clinical trials or overwhelming evidence from observational studies;
- type 2 evidence: evidence from randomized clinical trials with important limitations or exceptionally strong evidence from observational studies;
- type 3 evidence: evidence from observational studies or randomized clinical trials with notable limitations; and
- type 4 evidence: clinical experience and observations, evidence from observational studies with important limitations, or evidence from randomized clinical trials with several major limitations.

A synthesis of the CDC 2022 opioid guideline recommendations and implementation considerations follows. Each of the 12 recommendations is summarized throughout the rest of this article, and each recommendation summary is followed by a parenthetical note that lists the recommendation number, category,
and evidence type (for example, “recommendation 7, category A, evidence type 4”). Implementation considerations from the CDC 2022 opioid guideline are discussed after each recommendation.

**Benefits versus risks**

Evaluation and discussion of the potential benefits and risks of opioid therapy with the patient are a central theme of the guideline. The discussion should occur before initiation of opioid therapy and be repeated within 1 to 4 weeks of initiation of opioid therapy or escalation of dosage and regularly thereafter (recommendation 7, category A, evidence type 4).11

- All patients on long-term opioid therapy should be assessed at least every 3 months.
- Patients who began opioid therapy for acute pain but have continued treatment for 30 days should have pain, function, and treatment goals reevaluated, and providers should discuss the risks and benefits of continued opioid therapy with them.
- More frequent monitoring is necessary with a change from immediate-release to extended-release (ER) or long-acting (LA) opioids.

Additionally, patients at higher risk for opioid use disorder or overdose require more frequent monitoring.

- Higher-risk patients include those with depression or other mental health conditions, a history of substance use disorder, or a history of overdose; those taking an opioid dose of 50 morphine milligram equivalent (MME) or more per day; and those taking central nervous system depressants with opioids.
- Overdose risk is doubled for opioid dosages of 50 to less than 100 MME per day compared with less than 20 MME per day; it may be even higher for dosages of more than 100 MME per day.
- At each follow-up visit, the clinician should review treatment goals, risks and benefits of opioid therapy, and current pain and function with the patient and should assess for signs of adverse reactions (detailed in recommendation 8), opioid misuse, and/or opioid use disorder.

- Early signs of opioid misuse or opioid use disorder include sedation, slurred speech, craving or taking opioids in greater dosages or at a higher frequency than prescribed, difficulty controlling use, and interference of opioid use with social, family, or work responsibilities.
- Validated screening tools such as the Drug Abuse Screening Test (DAST); Tobacco, Alcohol, Prescription medication, and other Substance use (TAPS) tool; and Alcohol Use Disorders Identification Test (AUDIT-C) may be used.

**Acute pain**

For patients with acute pain, the guideline indicates that “nonpharmacologic and nonopioid pharmacologic therapies should be maximized, as many have been shown to be as effective as opioids for many types of acute pain. Opioid therapy may be considered if anticipated benefits are expected to outweigh the risks to the patient and realistic anticipated benefits and known risks are discussed with the patient” (recommendation 1, category B, evidence 3).11 Acute pain usually responsive to nonopioid therapies includes musculoskeletal injuries, low back pain, and headaches, including migraines. These therapies include, but are not limited to, superficial heat, massage, acupuncture, acupressure, transcutaneous electrical nerve stimulation, rest, ice, compression, elevation, topical or oral nonsteroidal anti-inflammatory drugs (NSAIDs), acetaminophen, skeletal muscle relaxants, and triptans.

In initiating opioid therapy for acute pain, providers should prescribe immediate-release opioids rather than ER or LA opioids (recommendation 3, category A, evidence type 4) at the lowest effective dose (recommendation 4, category A, evidence type 3) in a quantity no greater than that needed for the expected duration of pain severe enough to require opioids (recommendation 6, category A, evidence type 4).11

Dosing for acute pain should be at least 4 hours apart on an as-needed basis, rather than on a scheduled or around-the-clock basis, and clinicians should avoid providing additional opioids “just in case” pain continues longer than anticipated. Rather, a plan for timely reevaluation, typically within 2 weeks, to ensure resolution should be made. If opioids have been taken around-the-clock for more than a few days, a brief taper may be necessary. Continuation of opioid therapy...
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beyond 1 month becomes subacute pain management, and related recommendations should be followed for evaluation and tapering.

Subacute and chronic pain

Complete relief of subacute and chronic pain is often unrealistic. The clinician should discuss expected treatment goals focused on improved function and decreased pain; individualized nonpharmacologic and nonopioid pharmacologic therapies targeted to the specific condition and pain type should be optimized to minimize use of opioid therapy (recommendation 2, category A, evidence type 2).11 Integrated pain management using multimodal therapies is ideal for chronic pain management. These therapies may include use of exercise, physical therapy, massage, yoga, acupuncture, cognitive behavioral therapy, mind-body practices, NSAIDs, tricyclic antidepressants, serotonin and norepinephrine reuptake inhibitors, gabapentin, pregabalin, topical capsaicin, and lidocaine patches for pain relief. Interventional approaches such as glucocorticoid joint injections, epidural steroid injections, nerve ablation procedures, and neurostimulation procedures should also be considered.

Opioid therapy may be considered for subacute or chronic pain if anticipated benefits outweigh the risks to the patient. For the scenario of subacute or chronic pain, the following recommendations apply:

1. Opioid therapy should be initiated with immediate-release opioids rather than ER/LA opioids (recommendation 3, category A, evidence type 4).11
   - ER/LA opioids are not to be used intermittently or in patients who are opioid-naive.
   - Switching to ER/LA opioids requires a reduction of total daily dosage to account for incomplete opioid cross-tolerance and should be done with caution in patients with renal or hepatic dysfunction.
   - Methadone should not be the first choice in prescribing an ER/LA opioid. The prescription of methadone or transdermal fentanyl should only be undertaken by clinicians who are familiar with each drug’s dosing and absorption and who are prepared to educate patients about use.
   - If patients with chronic or subacute pain develop superimposed acute pain, nonopioid therapy should be used if possible.
   - For patients who are opioid-naive, prescribe the lowest effective dose (recommendation 4, category A, evidence type 3).11
     - The lowest starting dose for patients who are opioid-naive is often equivalent to a single dose of approximately 5 to 10 MME or a daily dosage of 20 to 30 MME. Conversion factors for common opioids can be found in the full guideline.
     - An exit strategy should be determined at initiation in the event that, at any point, benefits do not outweigh the risks of continuing opioid therapy. This strategy should include an individualized plan to gradually taper and discontinue opioids if they will be used around the clock for more than a few days, avoiding abrupt discontinuation unless the situation is life-threatening.

2. Continued opioid therapy

The guideline indicates: “For patients already receiving opioid therapy, clinicians should carefully weigh benefits and risks…when changing opioid dosage. If benefits outweigh risks of continued opioid therapy, clinicians should work closely with patients to optimize nonopioid therapies while continuing opioid therapy. If benefits do not outweigh risks of continued opioid therapy, clinicians should optimize other therapies and work closely with patients to gradually taper to lower dosages or…appropriately taper and discontinue opioids” (recommendation 5, category B, evidence type 4).11

- Shared decision-making is important when discussing risks and benefits, as patient agreement facilitates a more successful treatment plan, whether that plan entails continuing or tapering opioids. Shared decision-making may include establishing goals related to function, pain control, and maximization of nonopioid therapies.
- Resolution of the pain-causing condition and patient request for opioid discontinuation are indications for taper and discontinuation. Taper and discontinuation may also be appropriate in other circumstances, such as if:
• opioid therapy has not improved function or reduced pain;
• evidence of opioid misuse exists or the patient experiences an overdose or serious event;
• the patient is using other medications or has a medical condition that increases risk;
• the patient has adverse reactions that diminish quality of life or impair function; or
• prolonged opioid treatment or higher dosages are not providing clear benefits.

• A shorter duration of opioid use (weeks to months) may allow for a decrease of 10% of the original dose per week. Longer duration of opioid use may necessitate a longer taper, typically of no more than 10% per month with monthly follow-ups. Behavioral health support may be needed.

• Signs of opioid withdrawal such as anxiety, insomnia, abdominal pain, vomiting, diarrhea, diaphoresis, mydriasis, tremor, tachycardia, or piloerection may indicate the need for slower taper. Short-term use of alpha-2 agonists such as clonidine or tizanidine may reduce the severity of withdrawal symptoms.

• Unless a life-threatening issue is indicated, rapid taper or sudden discontinuation should be avoided.

• Opioid misuse or opioid use disorder may be revealed by an unsuccessful opioid taper or discontinuation. The clinician should assess the patient and plan for treatment if opioid misuse or opioid use disorder is identified. Buprenorphine provided by a knowledgeable clinician may aid in the treatment of opioid use disorder and taper of high-dose opioids.

Assessment of risk and risk mitigation

Clinicians should complete a proactive evaluation of potential risks prior to and during opioid therapy and should undertake strategies to mitigate risk, including, for example, coprescription of naloxone (recommendation 8, category A, evidence type 4).11

• Use validated tools such as the Generalized Anxiety Disorder-7 (GAD-7) and Patient Health Questionnaire (PHQ-9) to screen for and assess mental health and substance use disorders, consulting with or referring to a behavioral health specialist when appropriate.

• Offer naloxone when prescribing opioids, and provide education on overdose prevention and naloxone use to the patient and household members. Discuss safe and secure storage of opioids and options for safe disposal of unused opioids.

• Discuss common adverse reactions of opioids such as constipation, dry mouth, nausea, vomiting, drowsiness, confusion, tolerance, and physical dependence as well as withdrawal symptoms when stopping opioids.

• Prophylactic pharmacologic therapy such as a stimulant laxative may be needed to prevent constipation if opioids are taken regularly. Stool softeners or fiber laxatives without a stimulant laxative should be avoided.

• Discuss the patient’s occupation and the potential effect of opioids on sleep, cognition, balance, coordination, and ability to safely continue work duties.

• Counsel the patient on increased risk for overdose when opioids are combined with other drugs or alcohol.

• Consider concurrent conditions including sleep apnea, pregnancy, renal or hepatic insufficiency, mental health conditions, and substance use disorders in assessing the risk of opioid therapy.

• Avoid prescribing opioids to patients with moderate or severe sleep-disordered breathing if possible.

• Opioid use during pregnancy imparts risk to the fetus and to the pregnant individual. Discussion regarding risks versus benefits as well as taper and discontinuation if possible is required as early as possible in pregnancy.

• Individuals with renal or hepatic insufficiency and patients age 65 years or older require more frequent monitoring.

Review the patient’s history of controlled substance prescriptions using state prescription drug monitoring program (PDMP) data prior to initiation of opioids and periodically thereafter to identify opioid dosages or medication combinations that put the patient at high risk for overdose (recommendation 9, category B, evidence type 4).11

• Monitor PDMP data at least every 3 months during long-term opioid therapy and discuss PDMP results with the patient.

• Patients should not be dismissed from the practice based on PDMP information; instead, clinicians should use the situation as an opportunity for education and risk discussions.
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When PDMP results suggest safety concerns, actions include collaboration with other clinicians prescribing controlled substances for the patient, tapering of medication to avoid unsafe doses, and/or toxicology testing to identify potential diversion.

Regardless of PDMP results, clinicians should consider the benefits and risks of periodic toxicology testing throughout opioid therapy, both to assess for prescribed opioids as well as for use of other prescribed or nonprescribed medications or substances (recommendation 10, category B, evidence type 4).11

Toxicology testing should be used to inform and improve patient care in the context of other clinical information rather than as a punitive tool for potential dismissal. Patients should not be dismissed from a clinician’s care due to toxicology results alone; such dismissal has the potential to be harmful to patients.

Clinicians should explain initial results to the patient, gather data in a nonjudgmental manner to determine the need for confirmatory testing, and provide education to the patient.

Unexpected results may necessitate more frequent evaluation of the patient, naloxone prescription, opioid dosage tapering or discontinuation, or referral for treatment of opioid use disorder.

Use caution when prescribing opioid pain medication and benzodiazepines (and other central nervous system depressants) concurrently (recommendation 11, category B, evidence type 3).11

Check the PDMP for concurrent controlled medications.

Concurrent use of opioids and central nervous system depressants such as benzodiazepines increases sedation, respiratory depression, and overdose risk. Evaluation of the benefit of concurrent use should be weighed against risk and discussed with the patient.

If a taper of benzodiazepines is indicated, it should be done slowly; treatment for anxiety should be initiated if required.

For patients who have or develop opioid use disorder, the clinician should offer or refer for evidence-based treatment with appropriate medications; detoxification alone often results in relapse (recommendation 12, category A, evidence type 1).11

Clinicians should assess for and discuss opioid misuse or opioid use disorder with patients.

Patients with opioid use disorder should not be dismissed from the practice, as dismissal can adversely affect patient safety.

Conclusion

The CDC 2022 opioid guideline is based on the latest scientific evidence and designed to promote safer and more effective pain management strategies.11 Pain management is more than writing a prescription. It is a comprehensive plan for evaluation, physical assessment, education and counseling, multimodal treatment, and frequent follow-up. Many primary care providers feel most confident in providing acute or chronic pain management to patients who have low risk for substance or opioid use disorders, have clearly identifiable pathologies for their pain, have need for only low doses of opioid medication, have limited polypharmacy, and are adherent to routine follow-up. If they do not have experience in pain management, primary care providers may wish instead to refer patients, under certain circumstances, to specialists or pain management practices. Patients warranting referral for care may include those whose pain is refractory to a reasonable immediate-release opioid trial; those requesting or requiring escalating doses of medication; those whose pain has no clearly defined pathology; those at high risk for substance use disorder, opioid misuse, or opioid diversion; those requiring routine interventional procedures for pain control; or those for whom the primary care provider is unable to maintain adequate evaluation, monitoring, and/or follow-up. Using the CDC 2022 opioid guideline, clinicians support efforts to reduce opioid misuse, opioid use disorder, and overdose deaths while providing effective, comprehensive, and coordinated pain management for their patients.

Note

The CDC 2022 opioid guideline contains more information than is included in this article. Providers are
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encouraged to review the full guideline for free by visiting doi/10.15585/mmwr.rr7103a1.11

REFERENCES


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