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Is it time to taper that opioid? (And how best to do it)

This guide will help you to determine when to start an opioid taper and how to do so while maintaining pain control and minimizing the risk that the taper will fail.

PRACTICE RECOMMENDATIONS

- ▶ *Continue opioid therapy only when it has brought clinically meaningful improvement in pain and function and when the benefits outweigh adverse events or risks.* **C**
- ▶ *Review the selected opioid tapering plan in detail with the patient and provide close follow-up monitoring of ongoing or emerging risks.* **C**
- ▶ *Be vigilant: Enacting an opioid-tapering plan can unmask opioid use disorder, which can cause the patient to seek alternative forms of opioids, including illicit, potentially lethal fentanyl analogues.* **C**

Strength of recommendation (SOR)

- A** Good-quality patient-oriented evidence
- B** Inconsistent or limited-quality patient-oriented evidence
- C** Consensus, usual practice, opinion, disease-oriented evidence, case series

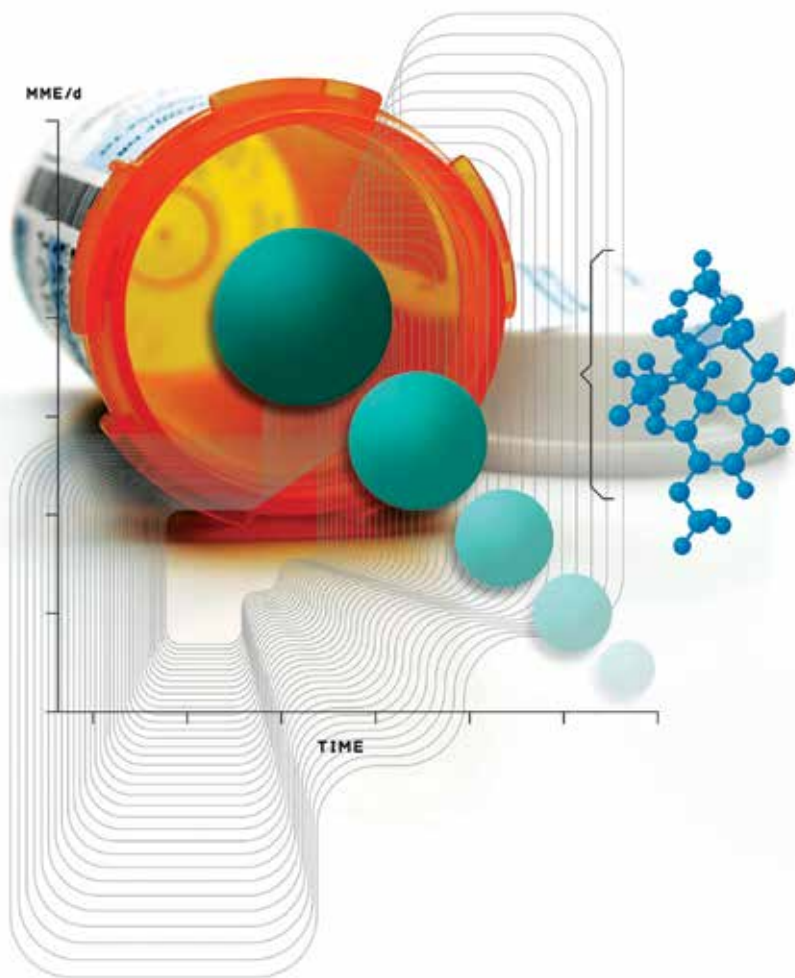
The opioid crisis has brought added scrutiny to opioid prescribing, particularly to health care providers, whom many blame for the genesis of the opioid overdose epidemic. Family physicians are acutely aware of these complexities: By sheer volume, family physicians prescribe more opioid analgesics than any other subspecialist.¹

Overwhelmed by opioid prescriptions

Because of a complexity of factors (notably, the influence of the US pharmaceutical industry), the quantity of opioid prescriptions has risen substantially—enough so that, in 2010, opioids were prescribed in great enough quantity to medicate every American around the clock for a month.² Among people who began abusing opioids in the 2000s, 75% reported that their first opioid was a prescription drug; this is a shift from prior decades, when heroin was the gateway to opioid addiction.³ As the reality of the size of the opioid problem sunk in, many were hopeful that the epidemic would reverse itself as quickly as it began *if the medical community would simply prescribe fewer opioids.*

Since 2010, the opioid overdose fatality rate has risen dramatically, even though prescription opioid overdose mortality has leveled off, or even declined.² One explanation for this paradox? As availability of prescription opioids declined, people suffering from an underlying opioid use disorder (OUD) turned instead first to heroin, then later to potent fentanyl analogues to fuel their addiction. In most communities, the prevalence of fentanyl analogues—alone or more commonly mixed with other opioids—has driven the staggering rise in opioid-related fatalities in recent years.

No question: Prescription opioids played a critical role in the origins of this epidemic, but just withdrawing prescriptions will not result in marked reduction in the epidemic. This quandary is no more apparent than in primary care, where



➤ Among people who began abusing opioids in the 2000s, 75% said that their first opioid was a prescription drug; in prior decades, heroin was the gateway to opioid addiction.

the considerable risk of continuing opioids—especially at high dosages—must be weighed against the potential risks of discontinuation. Adding to this dilemma are lack of access to treatment for patients with an OUD and the continued stigma and misunderstanding of substance use disorders.

In this article, we describe the challenges of long-term opioid use and review necessary protocols and precautions for maintaining or tapering an opioid regimen in patients who suffer chronic pain.

Managing chronic pain is fraught with complexity

Chronic pain is both *real* and a disease *in its own right*. Although definitions of chronic pain vary, pain that lasts > 3 months or past the duration of normal tissue healing is typically considered chronic.⁴ Approximations of prevalence vary, but in 1 study that examined a representative sample, it was estimated that 14.6% of US adults experience chronic pain.⁵

Patients who report symptoms or a history of chronic pain can elicit negative reac-

tions from physicians—stemming from our biases, which can inadvertently provoke emotions on our part.⁶ Unflattering portrayals of patients in the media can further fuel unwarranted biases and prejudices.⁷

Preventing, assessing, and treating chronic pain can be difficult, at the level of both the individual physician and the larger system of care, even without adding in complications of the opioid epidemic. For racial and ethnic minority groups, women, older people, and people with cognitive impairment or cancer, pain can be underrecognized and go inadequately treated.

Chronic pain itself has clinical, psychological, and social consequences and is associated with limitations in activity, work productivity, quality of life, and stigma.⁸ Treatment of chronic pain—with opioids or other modalities—remains an important component of patient-centered primary care. Interestingly, however, many patients struggling through chronic pain report that efforts to curb the opioid epidemic have inadvertently led to lower-quality pain management and, therefore, understandable concern among patients whose chronic

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The therapeutic window—between safe dosages and those that could lead to respiratory depression or overdose—is narrow for older patients.

pain is well managed with opioid pain medications.^{9,10}

When is it appropriate to continue opioids for chronic pain?

Apart from the treatment of active cancer, palliative care, and end-of-life care, the appropriate use of opioids for chronic and acute pain has become clouded in recent years. To assist with this problem, the Centers for Disease Control and Prevention issued guidelines in 2016 for primary care physicians who are faced with this clinical dilemma.¹¹ The guidelines (1) address circumstances in which it is safe to consider opioid prescribing and (2) provide ongoing reassessment of indications for chronic opioid prescribing within the context of potential risk to the patient and society. Because appropriate use of opioids has grown murky, nonpharmacotherapeutic management and nonopioid pharmacotherapy are preferred for chronic pain.

■ **Plan ahead.** Establish goals of treatment that focus on both pain and function when starting opioid therapy. This will facilitate decision-making when it comes time to continue—or discontinue—opioids down the road. Opioids should be prescribed at the lowest effective dosage; ongoing reassessment of benefit should be made, and particular caution should be exercised, if the daily opioid dosage reaches ≥ 50 morphine milligram equivalents (MME) and especially as the dosage approaches ≥ 90 MME/d. Prescribers should ensure that patients are educated about known risks and the limited evidence of benefit of opioid therapy.

■ **An age-related concern.** Special consideration is warranted in older patients, who might have reduced renal function even in the absence of renal disease; this can lead to a reduction in clearance of pain medication. Because of that increased risk of drug accumulation, the therapeutic window—between safe dosages and those that could lead to respiratory depression or overdose—is narrow for these patients.¹¹

■ **Use in pregnancy.** Treatment with opioid medication in pregnancy warrants special consideration. In general, it's wise to avoid opioid use in pregnant women because data on long- and short-term safety are limited.¹²

In 2015, the US Food and Drug Administration issued a safety announcement that further investigation is needed to determine whether the fetus is at increased risk of a neural tube defect related to opioid exposure during the first trimester.¹³ In women with an OUD, both methadone and buprenorphine are safe to use. Buprenorphine is associated with slightly better outcomes for neonatal abstinence syndrome and length of hospital stay.¹⁴

■ **Ongoing monitoring of risk.** Periodically assessing risk factors for opioid-related harm during continuation of opioid treatment is important. Tools such as the Opioid Risk Tool (ORT) or the Screener and Opioid Assessment for Patients with Pain-Revised, or SOAPP-R, can be used to evaluate the risk of misuse in adults who are prescribed opioids for chronic pain,¹⁵ although the evidence for utilizing these tools is inconclusive.¹¹

Offering naloxone should be considered when factors that increase the risk of opioid overdose are present, such as a history of substance use disorder, a daily opioid dosage > 50 MME, concurrent use of benzodiazepines, and medical comorbidities that increase the risk of overdose (eg, sleep apnea, pulmonary disease, heart failure).¹⁶ Prescribers should review prescription drug monitoring program data, when available, to assess treatment adherence and to obtain a collateral history that might suggest abuse or diversion. Urine drug testing can be a useful adjunct to ongoing therapy—again, to assess treatment adherence and look for evidence of other substance use disorders.

■ **Watchfulness for misuse and OUD.** Opioid misuse—the nontherapeutic use of opioids—includes taking opioids in amounts other than prescribed, for indications other than prescribed, and administering by alternative routes other than prescribed (eg, crushing and snorting, rather than ingesting). The presence of opioid misuse does not always signify OUD. However, *The Diagnostic and Statistical Manual of Mental Disorders*, 5th ed.,¹⁷ defines OUD as out-of-control use; devoting increasing mental and physical resources to obtaining, using, and recovering from substances; and continued use despite adverse consequences.

Behaviors that increase the risk of,

and might signal, opioid misuse and OUD include¹⁸

- seeking early refills
- obtaining opioids from the emergency room
- using medications prescribed to others
- using opioids to treat symptoms other than pain, such as anxiety or insomnia
- “doctor-shopping.”

Furthermore, psychiatric comorbidities,¹⁹ a personal or family history of substance use disorder,²⁰ and a preadolescent history of sexual abuse²¹ are associated with a higher risk of a substance use disorder.

If OUD is identified, remain nonjudgmental and acknowledge that addiction is a chronic disease. Assumptions about a patient’s character or morality have no place in the appropriate management of OUD; remain mindful of your own implicit biases.

When is it appropriate to start an opioid taper?

The decision to taper opioids is difficult and can provoke anxiety for both prescriber and patient. Complicating matters is that there is insufficient evidence to evaluate opioid dosage-reduction interventions for patients with chronic noncancer pain.²²

■ **Safety concerns.** Even in patients who are taking opioids as prescribed and for whom no red flags have been raised, the long-term safety of high-dosage opioids remains unclear. There is no “safe” dosage of opioids; however, evidence is clear that the risk of death from overdose increases with dosage. Compared with patients taking a dosage anywhere from 1 to 20 MME/d, those taking 50 to 99 MME/d have a 3.7-fold increased risk of overdose; patients taking ≥ 100 MME/d had an 8.9-fold increased risk.²³ Patients for whom concomitant benzodiazepines are prescribed are also at higher risk of overdose and death. In studies of opioid overdose deaths, there was evidence of concurrent benzodiazepine use in 31% to 61% of cases.¹¹

■ **Inadequate analgesia.** Given the well-established risk of drug tolerance, the inability to achieve or maintain pain relief or functional improvement can still occur—even when the opioid dosage is escalated

reasonably. It might be prudent in that situation to taper opioids while also considering alternative modalities, including ones that were deferred previously.

■ **Intolerable adverse effects.** Adverse effects are common. Constipation has a reported prevalence of 15% to 90% among patients on long-term opioid treatment.²⁴ Short-term, mild constipation is often manageable; long-term opioid use, however, can produce constipation refractory to bowel regimens and, in rare cases, lead to bowel obstruction, perforation, and even death. Other adverse effects include²⁵

- sedation and drowsiness
- impaired memory or concentration
- mood changes
- dry mouth
- abdominal pain and nausea
- sexual dysfunction.

When these effects limit the tolerability of treatment, tapering might be indicated.

How are opioids tapered?

There is no definitive evidence of an optimal rate of taper or frequency of follow-up. Most guidelines suggest tapering opioids at 10% of the dosage each week; patients who have been taking opioids for many years, however, might require a slower taper (eg, a dosage decrease of 5%-20% every 2-4 weeks).¹¹

Psychosocial support and maximizing nonopioid pain management techniques are critical to successful opioid tapering. When tapering is part of a comprehensive pain and rehabilitative plan, patients might find their symptoms alleviated.²⁶ Given the potential risks in patients taking both short- and long-acting opioids, tapering the long-acting opioid should be the initial priority.

A more rapid taper—eg, a 20% reduction each week or even abrupt discontinuation of opioids—might be necessary if diversion is suspected or if there is concern that continued use of the medication presents high risk. In such cases, consultation with an addiction medicine specialist can be helpful—to assess whether medication-assisted therapy for OUD would be appropriate and how to support patients who are having withdrawal symptoms.

For all patients, frequent follow-up visits



Psychiatric comorbidities, a personal or family history of substance use disorder, and a preadolescent history of sexual abuse are associated with a higher risk of a substance use disorder.

TABLE
Signs and symptoms
of opioid withdrawal syndrome²⁸

Abdominal cramps	Mydriasis
Anorexia	Nausea
Anxiety	Piloerection
Diaphoresis	Restlessness
Diarrhea	Rhinorrhea
Dizziness	Shivering
Hot flashes	Sneezing ^a
Hypertension	Tachycardia
Insomnia	Tremor
Lacrimation	Yawning ^a
Myalgias or arthralgias	

^aIn excess.

with their primary care clinician, as well as referrals to mental health, physical therapy, and pain or rehabilitation services, can promote a successful taper. It is advised that, before beginning a taper, a treatment plan should be written out with the patient so that expectations are shared by physician and patient for the goals of the taper, the speed of dosage decreases, and the frequency of follow-up after each dosage change. At each follow-up visit, education regarding self-management and individualized recommendations for psychosocial support, mental health services, and substance use disorder services should be updated.

Assessing risk when tapering chronic opioid therapy

The goals of tapering should be to (1) reduce adverse effects of treatment and (2) mitigate short- and long-term risks.

Three short-term risks

Unmasking OUD. Tapering prescribed opioids, or even just discussing tapering, can unmask OUD in some patients. Follow-up visits during the tapering schedule should include frequent screening for OUD. If OUD is diagnosed, we recommend beginning medication-assisted treatment or referring the patient to a substance use treatment center. There is strong evidence of the safety

and efficacy of medication-assisted treatment, even with a coexisting chronic pain disorder.²⁷

Withdrawal syndrome. Opioid withdrawal syndrome is characterized by signs and symptoms of sympathetic stimulation, resulting from decreased sympathetic blockade by opioids (TABLE).²⁸ (See “Changes in the locus ceruleus lead to withdrawal,”²⁹ page 331.) Symptoms start 2 to 3 half-lives after the last dose of opioid. Oxycodone, for example, has a half-life of 3 to 4 hours; withdrawal symptoms should therefore be anticipated in 6 to 12 hours. Because mixing opioids is commonplace, it can be difficult to predict exactly when withdrawal symptoms will begin. Patients are often most helpful in predicting the onset and severity of withdrawal symptoms.

Withdrawal can be measured using any of a number of validated tools, including

- the Subjective Opiate Withdrawal Scale, or SOWS³⁰ (FIGURE 1), which utilizes a patient self-report
- the Clinical Opiate Withdrawal Scale, or COWS³¹ (FIGURE 2), which relies on assessment made by the physician.

Although withdrawal is generally not considered life-threatening in patients without significant comorbidities, do not underestimate the severity of withdrawal symptoms. Often, the desire to avoid these intense symptoms drives patients with OUD to continue to overuse.

Increased pain. Patients might fear that pain will become worse if opioids are tapered. Although it is important to acknowledge this fear, studies of patients undergoing a long-term opioid taper report improvements in function without loss of adequate pain control; some even report that pain control improves.³²

Three long-term risks

Relapse. The most dangerous risk of tapering opioids is use of illicit opioids, a danger made worse by the increasing presence of highly lethal synthetic fentanyl analogues in the community. Risk factors for relapse following a full taper include the presence of depressive symptoms at initiation of tapering and higher pain scores at initiation and conclusion of the taper.³³ Having low pain

FIGURE 1

Subjective Opiate Withdrawal Scale (SOWS)³⁰

In the column below in today's date and time, and in the column underneath, write in a number from 0-4 corresponding to how you feel about each symptom RIGHT NOW. Scale: 0 = not at all, 1 = a little, 2 = moderately, 3 = quite a bit, 4 = extremely.

DATE: _____

TIME: _____:_____

	Symptom	Score	Score	Score	Score	Score	Score
1	I feel anxious						
2	I feel like yawning						
3	I am perspiring						
4	My eyes are teary						
5	My nose is running						
6	I have goosebumps						
7	I am shaking						
8	I have hot flushes						
9	I have cold flushes						
10	My bones and muscles ache						
11	I feel restless						
12	I feel nauseated						
13	I feel like vomiting						
14	My muscles twitch						
15	I have stomach cramps						
16	I feel like using now						
	TOTAL						

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at the end of an opioid taper, on the other hand, is predictive of long-term abstinence from opioids.³²

■ **Declining function.** As is the case while prescribing opioids for pain, maintenance of function remains a priority when tapering opioids. Function can be difficult to assess, given the many variables that can influence an individual's function. Psychosocial factors, such as coping strategies and mood, strongly influence function; so do psychiatric morbidities, which are more prevalent in patients with chronic pain and disability, compared with the general population.³⁴

■ **Medicolegal matters.** Although difficult to characterize, medicolegal risk is an inevitable consideration when tapering opioids:

- In a study of closed malpractice claims

involving all medical specialties, narcotic pain medications were the most common drug class involved, representing 1% of claims.³⁵

- In a study of closed malpractice claims involving pain medicine specialists, 3% were related to medication management. Most claims arose following death from opioid overdose.³⁶

What else is needed in this area of practice?

Increasingly, family physicians face the inherent tension of wanting to provide patient-centered, compassionate care for patients in pain while being mindful of opioid prescription stewardship. To support their work and help allay this tension, clinical research on this

FIGURE 2

Clinical Opiate Withdrawal Scale (COWS)³¹

For each item, circle the number that best describes the patient's signs or symptom. Rate on just the apparent relationship to opiate withdrawal. For example, if heart rate is increased because the patient was jogging just prior to assessment, the increased pulse rate would not add to the score.

Patient's name: _____		Date and time: / / :	
Reason for this assessment: _____			
Resting pulse rate: _____ beats/minute		Gastrointestinal upset: Over last ½ hour	
<i>Measured after patient is sitting or lying for 1 minute</i>		0	no GI symptoms
0	pulse rate 80 or below	1	stomach cramps
1	pulse rate 81-100	2	nausea or loose stool
2	pulse rate 101-120	3	vomiting or diarrhea
4	pulse rate greater than 120	5	multiple episodes of diarrhea or vomiting
Sweating: Over past ½ hour not accounted for by room temperature or patient activity		Tremor: Observation of outstretched hands	
0	no report of chills or flushing	0	no tremor
1	subjective report of chills or flushing	1	tremor can be felt, but not observed
2	flushed or observable moistness on face	2	slight tremor observable
3	beads of sweat on brow or face	4	gross tremor or muscle twitching
4	sweat streaming off face		
Restlessness: Observation during assessment		Yawning: Observation during assessment	
0	able to sit still	0	no yawning
1	reports difficulty sitting still, but is able to do so	1	yawning once or twice during assessment
3	frequent shifting or extraneous movements of legs/arms	2	yawning three or more times during assessment
5	Unable to sit still for more than a few seconds	4	yawning several times/minute
Pupil size		Anxiety or irritability	
0	pupils pinned or normal size for room light	0	none
1	pupils possibly larger than normal for room light	1	patient reports increasing irritability or anxiousness
2	pupils moderately dilated	2	patient obviously irritable/anxious
5	pupils so dilated that only the rim of the iris is visible	4	patient so irritable or anxious that participation in the assessment is difficult
Bone or joint aches: If patient was having pain previously, only the additional component attributed to opiates withdrawal is scored		Gooseflesh skin	
0	not present	0	skin is smooth
1	mild diffuse discomfort	3	piloerection of skin can be felt or hairs standing up on arms
2	patient reports severe diffuse aching of joints/muscles	5	prominent piloerection
4	patient is rubbing joints or muscles and is unable to sit still because of discomfort		
Runny nose or tearing: Not accounted for by cold symptoms or allergies		Total score: _____	
0	not present	(The total score is the sum of all 11 items)	
1	nasal stuffiness or unusually moist eyes	Initials of person completing assessment: _____	
2	nose running or tearing		
4	nose constantly running or tears streaming down cheeks		

GI, gastrointestinal.

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topic in the future should focus on

- new options for nonopioid pharmacotherapy for pain
- best practices for using opioids in non-cancer chronic pain.

In addition, health care systems can help—by providing insurance coverage of nonpharmacotherapeutic options for treating pain. **JFP**

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Changes in the locus ceruleus lead to withdrawal

Normally, the locus ceruleus (LC), a pontine nucleus within the brainstem, produces noradrenaline (NA), which stimulates alertness, breathing, and blood pressure, among other physiologic functions. When opioids bind to the mu-opioid receptors in the LC and decrease the release of NA, the result is diminished alertness, lower blood pressure, and slower respiration.

With chronic exposure to opioids, the LC acts to increase levels of NA to counteract suppression. When a patient stops taking opioids, the increased NA levels become excessive and produce symptoms of opioid withdrawal.²⁹