

## JAMA Insights

## Pain Management With Opioids in 2019-2020

Evan Wood, MD, PhD; David L. Simel, MD, MHS; Jan Klimas, PhD, MSc

**The evidence for the management** of noncancer pain among adults with acute and chronic pain conditions has evolved rapidly in recent years. Earlier recommendations and approaches resulted in more routine use of opioid analgesics.<sup>1</sup> As a result, it has been estimated that almost 40% of US civilian, noninstitutionalized adults used prescription opioids in 2015, and prescription opioid misuse and opioid use disorder have become common.<sup>2</sup> Coinciding with increased opioid prescribing has been a resurgence in illicit heroin use and, more recently, illicitly manufactured fentanyl. Through these combined effects, the number of estimated opioid-involved overdose deaths in the United States increased 90%, from 25 052 in 2013 to 47 600 in 2017.<sup>3</sup>

Beyond the health risks and harms associated with prescription opioid use, research has demonstrated that the promotion of more routine use of prescription opioids was not evidence based. For instance, a 2015 systematic review concluded that the “evidence is insufficient to determine the effectiveness of long-term opioid therapy” and that “evidence supports a dose-dependent risk for serious harms.”<sup>4</sup> A subsequent meta-analysis of 96 randomized clinical trials involving more than 26 000 patients further demonstrated the limited clinical utility of prescription opioids for chronic noncancer pain.<sup>5</sup>

Because the evidence suggests that any acute benefit of opioid therapy on chronic pain may diminish within weeks,<sup>5</sup> a limitation of most research in this area is that most opioid trials are limited to 6 weeks or less.<sup>4</sup> To address this, the Strategies for Prescribing Analgesics Comparative Effectiveness trial compared a stepped approach among 240 patients with osteoarthritis pain and found that treatment with opioids was not superior to treatment with non-opioid medications for improving pain-related function.<sup>6</sup>

Recent pain guidelines, such as the 2016 US Centers for Disease Control and Prevention opioid prescribing guideline,<sup>7</sup> highlight the importance of carefully screening patients to identify those who are at high risk of opioid use disorder. Additionally, a host of screening instruments have been developed with the aim of identifying patients among whom opioid analgesics can safely be prescribed. However, until 2019, these recommendations and screening instruments have not been scrutinized for diagnostic accuracy. To better understand these screening instruments' effectiveness, we performed a systematic review and reported the results in the May 3, 2019, issue of *JAMA Network Open*.<sup>8</sup> A quality assessment and critical appraisal of studies examining risk factors for opioid addiction, screening instruments, and the diagnostic accuracy of different predictive measures was done (Box). The review found that no symptoms, signs, or screening tools appeared useful for identifying patients at lower risk for opioid addiction, and that commonly used screening instruments, such as the Opioid Risk Tool, provide no diagnostic value for clinicians for predicting risk of subsequent addiction. Collectively, the specificity for certain risk factors, such as having a history of substance use disorder, suggest using caution when prescribing opioid-based medica-

#### Box. Key Findings to Identify Patient Risks of Prescription Opioid Addiction When Initiating Opioid Therapy<sup>8</sup>

- A history of opioid use disorder or other substance use disorder may be useful.
- Certain mental health diagnoses (eg, personality disorder) are associated with higher risk of addiction.
- Concomitant prescription of certain psychiatric medications (eg, atypical antipsychotics) is associated with higher risk of addiction.
- With the exception of the absence of any mood disorder, the absence of those risk factors and other findings does not help to identify lower-risk patients among whom opioids can be safely prescribed.
- All screening tools, including the Pain Medication Questionnaire, the Opioid Risk Tool, the Brief Risk Questionnaire, the Brief Risk Interview, and the Screener and Opioid Assessment for Patients with Pain, demonstrated poor diagnostic accuracy to identify high- or low-risk patients.

tions to individuals with these risk factors. Conversely, the absence of risk factors does not ensure that opioids can be prescribed safely because risk factors have low sensitivity for identifying individuals who will develop opioid problems (Box).<sup>8</sup>

These findings coincide with increasing concerns that new prescribing guidelines have resulted in harms from the withholding of opioid medications to individuals already prescribed opioid therapy for chronic pain.<sup>9</sup> Most importantly because, in some cases, these patients may turn to a street heroin market increasingly contaminated by toxic fentanyl analogs, great caution among prescribers must be used in this context as well.

While more research is needed, based on recent literature and the rapidly evolving nature of the opioid overdose epidemic due to the emergence of illicitly manufactured fentanyl analogs in the illicit drug supply, there are 3 main clinical scenarios clinicians must address in which evidence-based recommendations can be made (Figure). The first clinical scenario involves the approach to consider for patients with chronic pain (excluding cancer, palliative care, or other special circumstances) who are not receiving opioid therapy. In these situations, the literature suggests that opioid therapy should generally be avoided given the limited likelihood of benefit and the major evidence of opioid-related harms.<sup>4</sup> Further, for clinicians relying on the clinical examination to screen for high-risk patients or identify patients to whom opioid analgesics can be safely prescribed, no symptoms, signs, or screening tools appear particularly useful, and commonly used screening instruments provide no diagnostic value (Box).<sup>8</sup>

The second clinical scenario involves patients with chronic pain who are already receiving opioid therapy. In this scenario, individualized care should be used.<sup>4</sup> The literature suggests the potential for improved pain and functioning with slow opioid tapering in many patients. However, this approach is not effective in all patients and new trials are needed to best manage chronic pain in patients already receiving opioids. Narcotic tapers must be balanced with the

Figure. Evidence-Based Opioid-Sparing Pain Management Strategy

Patient presentation and pain management strategy		
<b>Chronic pain</b> <b>Not currently receiving opioid therapy</b>	<b>Chronic pain</b> <b>Currently receiving opioid therapy</b>	<b>Acute pain</b> <b>Therapy not initiated<sup>a</sup></b>
<ul style="list-style-type: none"> <li>Avoid opioid therapy</li> <li>Risk stratification tools to identify high- or low-risk patients provide no diagnostic value</li> </ul>	<ul style="list-style-type: none"> <li>Develop and use individualized treatment plan</li> <li>Do not abruptly taper or discontinue current opioid treatment</li> <li>Consider opioid agonist therapy (eg, buprenorphine/naloxone) if evidence of opioid use disorder</li> </ul>	<ul style="list-style-type: none"> <li>Avoid opioid therapy in patients with minor to moderate pain conditions</li> <li>Consider opioid therapy for patients with severe pain</li> <li><b>Dose and duration should be limited to short, renewable courses (eg, &lt;1 week)</b></li> </ul>

<sup>a</sup> Opioid analgesics should not be withheld from individuals with opioid use disorder with severe acute pain conditions.

serious risks of exacerbating pain, opioid withdrawal syndrome, and possible transition to street opioid use or other harms that withholding opioid therapy may result in.<sup>9</sup> For instance, a 2019 study of Medicaid beneficiaries in Vermont who filled high daily-dose opioid prescriptions for at least 90 consecutive days and who subsequently discontinued opioid prescriptions found that 49% of the beneficiaries had an opioid-related adverse event, defined as a hospitalization or emergency department visit with a primary or secondary diagnosis of opioid poisoning or substance use disorder.<sup>9</sup> However, given the prevalence and risks associated with prescription opioid diversion and misuse,<sup>2</sup> the proven benefits of opioid agonist therapy for patients dependent on prescription opioids, and evidence that buprenorphine/naloxone may provide similar analgesia as full opioid agonists, opioid agonist therapy should be considered when opioid addiction (ie, a problematic pattern of opioid use leading to clinically significant impairment

or distress) emerges. Efforts to overcome barriers to opioid agonist therapy, including improving access to addiction care in primary care are, therefore, needed.<sup>10</sup>

The third clinical scenario involves patients with acute pain. Because most chronic pain initially presents as acute pain, the benefits of opioids for acute pain may diminish rather quickly, and the known risks of prolonged opioid prescription and dose on risk of subsequent opioid addiction, nonopioid therapy should be favored for patients with minor to moderate acute pain. Further, given the risks of opioids in the context of pain conditions, it is important that in this scenario the dose and duration of opioids generally be limited to short (eg, <1 week), renewable (if necessary) courses.<sup>8</sup> While the causes of opioid addiction are complex and more research is needed in this area, evidence-informed use of opioid analgesics and opioid agonist therapies can play an important role in the long-term response to the opioid crisis.

#### ARTICLE INFORMATION

**Author Affiliations:** Department of Medicine, University of British Columbia, Vancouver, British Columbia, Canada (Wood, Klimas); Durham Veterans Affairs Medical Center, Durham, North Carolina (Simel); Department of Medicine, Duke University, Durham, North Carolina (Simel); School of Medicine, University College Dublin, Belfield, Dublin, Ireland (Klimas).

**Corresponding Author:** Evan Wood, MD, PhD, BC Centre on Substance Use, University of British Columbia, 400-1045 Howe St, Vancouver, BC V6Z 1Y6, Canada (bccsu-ew@bccsu.ubc.ca)

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