

## RESEARCH BRIEF

### ACOEM's Comprehensive Opioid Guideline and the Impact of Opioids on Workplace Health

September 2023



# Workplace Health & Opioids

## Where do we stand?

The use of opioids has sharply increased over the past three decades in the United States, well outpacing rates for other countries.<sup>1</sup> Although the rates of opioids prescriptions are decreasing, the overdose rate has climbed throughout the 2010s and exceeded 100,000 in 2021.<sup>2</sup> Research is ongoing to determine when, where, and how opioids can be safely prescribed.

The American College of Occupational and Environmental Medicine (ACOEM) is preparing to release an updated evidence-based clinical practice guideline with recommendations on how to prescribe opioids for working-aged people. Researchers with ACOEM have reviewed the recent medical literature to identify the need for updated guidance related to opioid use for acute, subacute/chronic, postoperative, and breakthrough pain, as well as medications that can be used for opioid tapering and withdrawal. This research brief highlights updates from the new guidance, the evidence supporting adherence to opioids guidelines, and how this guideline differs from the 2022 Centers for Disease Control and Prevention (CDC) clinical guideline for prescribing opioids for pain.

The ACOEM Opioids Clinical Practice Guideline, first published in 2014 and then updated in 2017, targeted the working-age population. The 2023 update expands on that version with more than 30 recommendations in the following general categories:

- Screening and Evaluating Patients
- Workers in Safety-Critical Jobs
- Acute Pain (Up to 4 Weeks)
- Subacute (1-3 Months) and Chronic Pain (>3 Months)
- Postoperative Pain (Up to 4 Weeks)
- Breakthrough Pain
- Discontinuation and Tapering of Opioids
- Treatment of Dependency and Addiction
- Prevention of Overdose Fatalities



The guideline's recommendations are based on an extensive review of the medical literature by a university-based research team, which identified more than 100 new studies to be evaluated for this updated guideline. The 2023 guideline, which cites over 1,300 sources, reinforces the previous recommendations from ACOEM: use limited opioids, only in specific cases, with significant oversight.

*Reduced opioid use is associated with increased patient satisfaction, less pain, improved range of motion, less bedrest, and increased walking ability.*

Based on the randomized controlled trials in the literature, opioids can slightly reduce short-term acute, subacute, and chronic pain ratings compared to a placebo. However, comparative efficacy trials did not find opioids to be better than other active treatments, such as anti-inflammatory medications (i.e., NSAIDs).

The ACOEM guideline also emphasizes the many adverse effects associated with opioids use, including (but absolutely not limited to) nausea, mental fog, hair loss, addiction, birth defects, and deaths from overdoses.

Notably, although there is stronger evidence that opioids may work for limited uses, such as perioperative pain and nerve pain, they are not effective for common causes in workers, such as low back pain and neck pain. Research supports the idea that dose limits are important, and that tapering can be done safely and effectively. Specific perioperative interventions to reduce opioids and improve function are noted to include: nerve blocks, pregabalin, ketorolac, early rehabilitation, and liposomal bupivacaine (anesthetic). The new research studies also found a 2-fold higher risk for being in a car crash while on opioids, even at weak or low doses.

## Efficacy of Adherence to Opioids Guidelines

Opioid use and abuse continue to be pervasive problems in our society, with over 220 people having died of an opioid overdose every day in 2021 in the US.<sup>3</sup> A portion of these overdoses stems from illicit sources, such as heroin and fentanyl, but upwards of 80% of people in treatment for heroin started their addiction with a prescription opioid.<sup>4</sup> Prescriptions of opioids are also not equal across communities. Higher opioid prescription patterns tend to occur in locations that are smaller cities with more white residents, higher numbers of dentists and primary care physicians, and more uninsured, unemployed, or disabled residents.<sup>5</sup>

While much of the opioid crisis began in the 1990s, pharmaceutical companies are now pleading guilty to misrepresenting the safety of opioids and violating anti-kickback laws by paying doctors to write prescriptions to the tune of \$8 billion in fines.<sup>6</sup> For more than 15 years, states have been implementing opioid guidance, interventions, and regulations to decrease the overuse of these painkillers, with most seeing decreases in opioid use or medication overdoses.<sup>7-9</sup> Although modeling has predicted that the crisis has peaked for prescription opioid abuse, an optimistic forecast still guesses that there will be 22.3 million US patients receiving opioid analgesic prescriptions in 2032.<sup>10</sup>

However, research shows that opioids guidelines can improve recovery among workers. A 3-year pre-post intervention study showed that adherence to the ACOEM Opioids Clinical Practice guideline was associated with the following outcomes in Utah: a 50% reduction in worker's compensation claims with an opioids prescription; a 16% (3.16 to 2.66) reduction in total prescriptions per claim; 65,502 mg reductions in morphine milligram equivalents (MMEs). Overall there was a state-wide reduction in opioids-related fatalities of 20% during this time period, likely associated with using guidelines and other interventions.<sup>11</sup> A pre/post evaluation of a guideline implemented in a Newark, New Jersey emergency department found a 61% reduction in numbers of opioids doses and a 34% increase in non-opioid prescriptions.<sup>12</sup> In addition, a pre-post intervention study in Michigan found opioids prescribing was reduced at one large institution after a post-surgical opioids guideline adoption, including a 51% reduction in total MME prescribed.<sup>13</sup> An epidemiological study found 70% of carpal tunnel release surgeries were prescribed an opioid and 29% were inconsistent with the ACOEM opioids guideline thus leading to longer recovery durations (1.9 days longer) and \$422 higher medical costs per claim.<sup>14</sup>

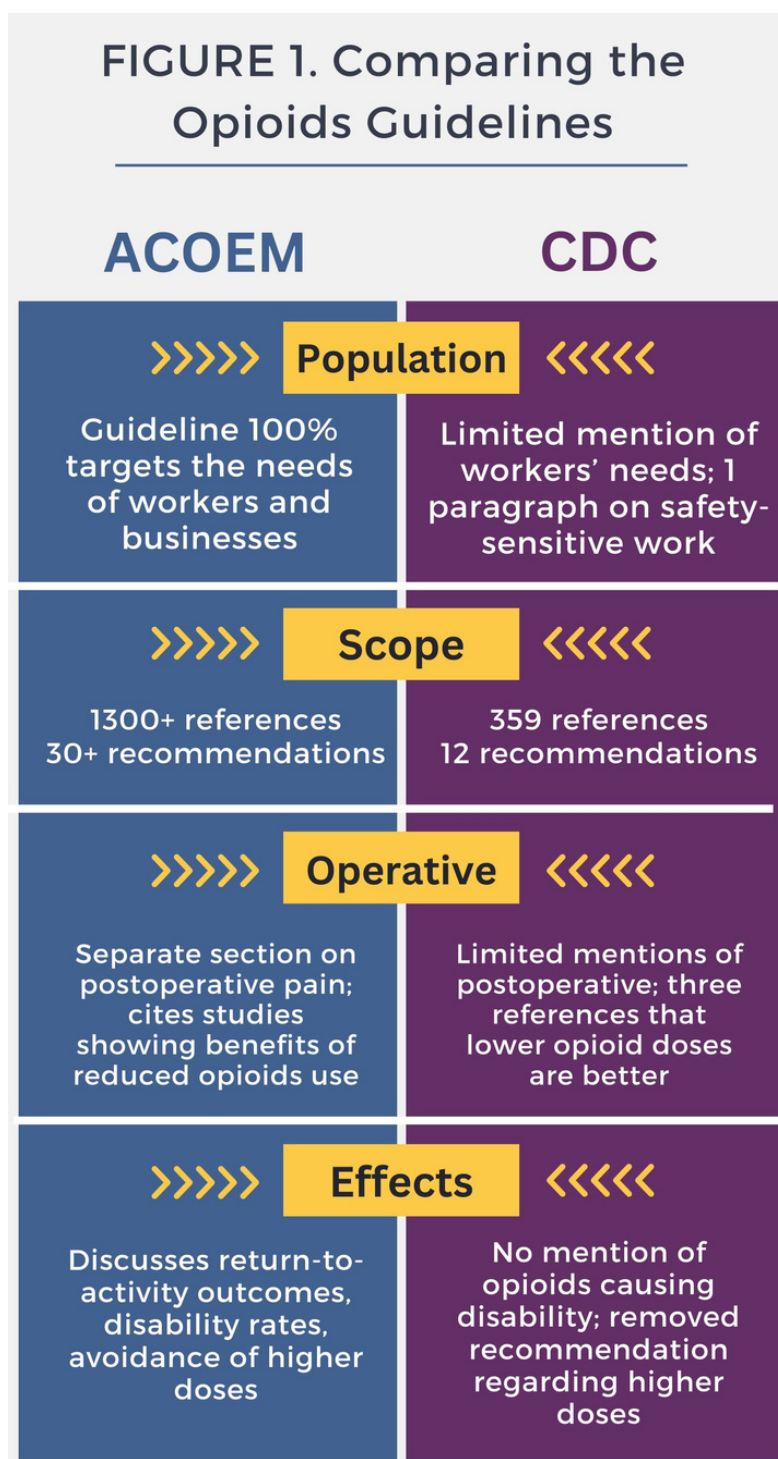
The CDC guideline on opioids provides limited recommendations specific to work with only broad direction on safety-sensitive work. In contrast, the ACOEM guideline outlines the impact of opioids on return-to-work recovery, the risks related to short-term and long-term disability, and the need for ongoing monitoring in safety-sensitive jobs (see Figure 1).<sup>15</sup>

Additionally, because ACOEM provides very specific recommendations, such as maximum daily oral opioid dose for patients with subacute and chronic pain, researchers are able to compare the outcomes of implementing the guideline, as in the study by Phillips et al. The depth of research is also greater in the ACOEM guideline, which contains more than 1,300 references and 30 recommendations, compared with 359 references and 12 recommendations in the CDC guideline.

A research study review using a multidisciplinary expert panel "largely supported" the CDC guideline but noted several issues, including:

1. the application of dosage ceilings and prescription duration guidance,
2. a failure to involve patients in decisions to taper or discontinue opioids,
3. barriers to diagnosis and treatment of opioid use disorder, and
4. access barriers to recommended comprehensive, multimodal pain care.<sup>16</sup>

The feasibility of adopting a guideline can be improved with auditing, feedback, and external facilitation. A team-based intervention strategy may also improve compliance with opioids treatment guidelines, including measures of mental health screening, urine drug screening, treatment agreements, avoiding co-prescribed benzodiazepines, average MMEs, and maximum opioids dose.<sup>17</sup>



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