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New CDC Guidelines for Prescribing Opioids for Pain

Case Law on Medical Causation Opinions



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CDC Newly Issued Clinical Practice Guidelines for Prescribing Opioids for Pain

James B. Talmage, MD, Assistant Medical Director, TN BWC



Opioids like morphine have been used across the globe for pain relief for eons. Opioids are used for pain relief after acute injury, after surgery, and sometimes for control of chronic, persisting pain. Drug overdose deaths have escalated in the U.S. with more than 100,000 deaths recorded for 2021 (CDC, 2023).

Eighty percent of workers' compensation patients in Tennessee claims who were out of work for greater than seven days from 2010 to 2012 had opioid prescriptions, and six percent of **ALL** Tennessee claims with originally opioid-naïve workers resulted in long-term opioid use, according to a Workers' Compensation Research Institute (WCRI) 2014 study (Wang, 2014).

The 2015 U.S. National Survey on Drug Use and Health estimated that 91.8 million (37.8%) U.S. civilian, noninstitutionalized adults used prescription opioids; 11.5 million (4.7%) **misused** them; and **1.9 million (0.8%) had opioid use disorder** (Compton et al., 2015)

In response to these issues, in 2016 the U.S. Centers for Disease Control (CDC) released its first guidelines for prescribing opioids (CDC, 2016). These guidelines were intended for primary care physicians in outpatient settings for treating chronic pain with opioids.

In Tennessee opioid prescriptions issued have decreased since 2016 (TN Dept. of Health, 2016):

The number of opioid prescriptions for pain has declined between 2016 and 2020. In Q1 (quarter 1) 2016, 1.96 million prescriptions of opioids for pain were filled (representing a rate of 295 prescriptions per 1,000 residents⁵⁸). Since this quarter, opioid prescriptions for pain have fallen to 1.26 million filled prescriptions in Q4 2020 (a rate of 184 per 1,000 residents), representing a decrease of 35.7%. While prescriptions declined quarter over quarter for most of this period, they increased from Q2 2020 to Q3 2020. This unusual trend is likely a result of the COVID-19 pandemic's effects on prescribing patterns.

Benzodiazepines are prescribed about half as often as opioids for pain and have steadily decreased over most of the last five years. In Q1 2016, 1.01 million benzodiazepine prescriptions were filled (152 per 1,000 residents) decreasing to 755,000

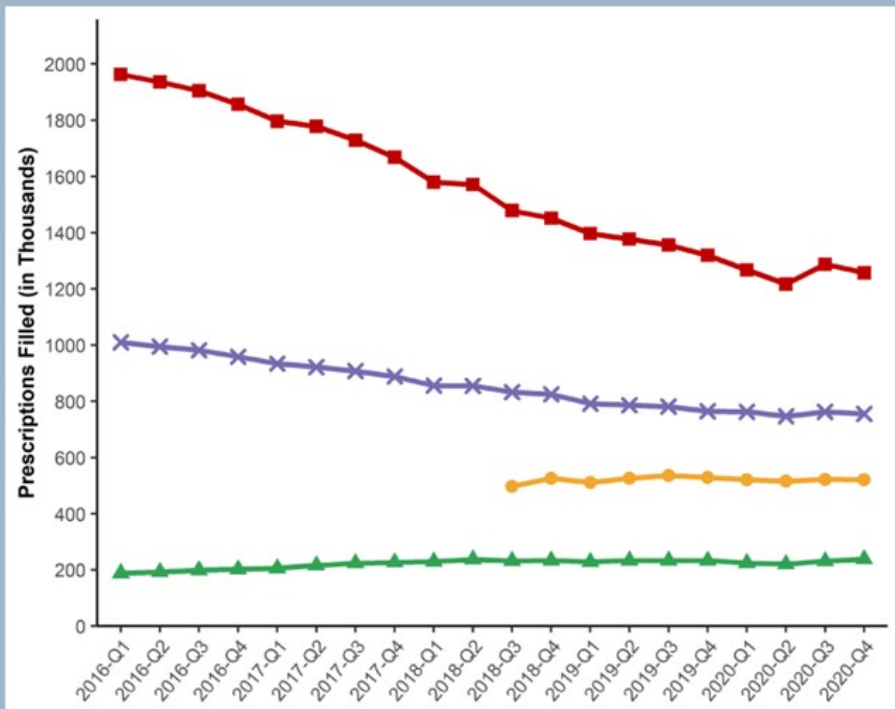
filled prescriptions in Q4 2020 (111 per 1,000 residents), a 24.8% reduction. Like opioids, benzodiazepine prescriptions increased slightly from Q2 to Q3 in 2020.

Gabapentin prescriptions were first required to be reported to the CSMD on July 1, 2018, so gabapentin data are only presented from Q3 2018 forward. Over this period, just over 500,000 gabapentin prescriptions were filled in most quarters. In Q4 2020, there were 521,000 gabapentin prescriptions filled (79 per 1,000 residents).

The number of prescriptions of buprenorphine for Medication-Assisted Treatment (MAT) has risen steadily over the five-year period presented here. In Q1 2016, there were 187,900 filled prescriptions (28 per 1,000 residents). By Q4 2020, there were 238,500 filled prescriptions (35 per 1,000 residents), representing a 26.9% increase.

Statewide Prescription Trend

Number of Controlled Substance Prescriptions by Selected Drug Class in TN, 2016-2020



Legend

- Opioids for Pain
- Benzodiazepines
- Gabapentin
- Buprenorphine for MAT

Analysis by the Office of Informatics and Analytics, TDH (last updated January 15, 2021). Limited to TN residents. Data Source: Controlled Substance Monitoring Database.

The Tennessee BWC publication *AdMIRable Review*, [Spring 2021](#) reviewed issues of opioids in workers' compensation injury patients. The American Medical Association republished a modified version, removing Tennessee specific material, of this article .

The abstract of the revised article reads:

Evidence shows that chronic opioid therapy is usually not beneficial; weaning patients off opioids many times results in less pain and better function; and opioid-induced hyperalgesia is real and frequent. Further evidence suggests that surgical outcomes are better if patients are weaned off opioids before surgery, and that the chronic use of opioids may adversely alter the assessment of maximum medical improvement (MMI).

A summary of Tennessee law on opioid prescriptions that applies to all Tennesseans, and not just workers' compensation patients, is available [HERE](#).

What's New:

In December 2022, the CDC released a 100-page update to their guidelines, with 181 cited references.

The CDC 2022 guidelines note that the total number of U.S. opioid prescriptions began falling in 2012, and the 2016 guidelines resulted in accelerated decreases in opioid prescribing, with about half of all states passing new legislation limiting initial opioid prescriptions, and many insurers and pharmacy benefit management companies and pharmacy chains instituting similar restrictions. The CDC feels this was inconsistent with the intent of the 2016 guidelines to "be flexible to support, not supplant, individualized, patient-centered care (Dowell et al, 2022)."

*Since release of the 2016 CDC Opioid Prescribing Guideline, **new evidence** has emerged on the **benefits and risks** of prescription opioids for both acute and chronic pain, comparisons with nonopioid pain treatments, dosing strategies, opioid dose-dependent effects, risk mitigation strategies, and opioid tapering and discontinuation (7–11). This evidence includes studies on misapplication of the 2016 CDC Opioid Prescribing Guideline (66), benefits and risks of different tapering strategies and rapid tapering associated with patient harm (68, 71–73), challenges in patient access to opioids (6), patient aban-*



Morbidity and Mortality Weekly Report (MMWR)

< Morbidity and Mortality Weekly Report (MMWR) Home

CDC Clinical Practice Guideline for Prescribing Opioids for Pain — United States, 2022

donment and abrupt discontinuation of opioids (71), a seminal randomized clinical trial comparing prescription opioids to nonopioid medications on long-term pain outcomes (74), the association of characteristics of initial opioid prescriptions with subsequent likelihood for long-term opioid use (75,76), and the small proportion of opioids used by patients compared with the amount prescribed to them for postoperative pain (77–79).

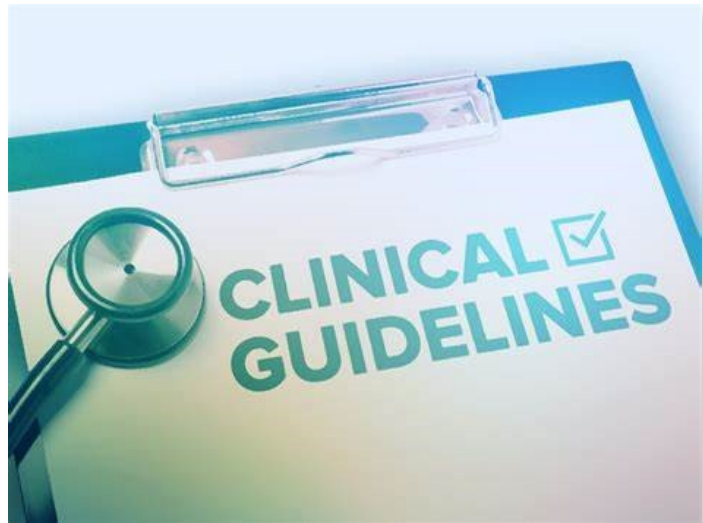
[Note: Numbers refer to references in the 2022 CDC guidelines]

This article will review and quote from the new [2022 CDC guidelines](#) with reference to the treatment of Tennessee workers' compensation patients. Key points are:

- *The guidelines recommendations are for **any and all** health care providers treating adults with acute (duration of longer than one month) pain, subacute (duration of one to three months) pain, or chronic (duration of longer than three months) pain.*
- *The guidelines are for applicable outpatient settings, including clinician offices, clinics, and urgent care centers. These recommendations do apply to prescribing for pain management when patients are discharged from hospitals, emergency departments, or other facilities.*
- *The guidelines are not a replacement for clinical judgment or individualized, person-centered care; and is not intended to be applied as inflexible standards of care.*
- *These recommendations do not apply to patients experiencing pain associated with the following conditions or settings: pain management related to sickle cell disease, cancer-related pain treatment, palliative care, and end-of-life care.*
- *The recommendations do not apply to providing care to patients who are hospitalized or in an emergency department or other observational setting from which they might be admitted to inpatient care*
- *Nonopioid therapies are at least as effective as opioids for many common types of acute pain. Non-opioid therapies are preferred for subacute and chronic pain.*



- Before prescribing opioid therapy for acute pain, clinicians should discuss with patients the **realistic benefits and known risks** of opioid therapy.
- **Before** starting opioid therapy for subacute or chronic pain, clinicians should discuss with patients the **realistic benefits and known risks** of opioid therapy, should work with patients to establish treatment **goals** for pain and function, and should **consider how opioid therapy will be discontinued if benefits do not outweigh risks**.
- When starting opioid therapy for acute, subacute, or chronic pain, clinicians should prescribe immediate-release opioids instead of extended-release and long-acting (ER/LA) opioids. Prescribe the lowest effective dosage. Avoid increasing dosage above levels likely to yield diminishing returns in benefits relative to risks to patients. Prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids.



- Clinicians should work with patients to **prevent prolonged opioid use**, prescribe and advise opioid use only as needed rather than on a scheduled basis, and encourage and include an opioid taper if opioids will be taken around the clock for more than a few days.
- The diagnosis and pathophysiologic mechanism of pain have implications for symptomatic pain treatment with medication. For example, evidence is limited for improved pain or function, or evidence exists of worse outcomes, with long-term use of opioids for several chronic pain conditions for which opioids are commonly prescribed, such as osteoarthritis (161), nonspecific low back pain (119,162), headache (152), and fibromyalgia (163,164). For moderate to severe chronic back pain or hip or knee osteoarthritis pain, a nonopioid strategy starting with acetaminophen or NSAIDs results in improved pain intensity with fewer side effects compared with a strategy starting with opioids (74). Tricyclic antidepressants, SNRI antidepressants,

selected anticonvulsants, or transdermal lidocaine are recommended for neuropathic pain syndromes (e.g., diabetic neuropathy or postherpetic neuralgia) (156).

- **Evaluate** benefits and risks with patients within one to four weeks of starting opioid therapy for subacute or chronic pain or of dosage escalation.
- **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, if warranted based on the individual circumstances of the patient, appropriately taper and **discontinue** opioids.
- Clinical evidence reviews found that available risk stratification tools (e.g., Opioid Risk Tool, Screener and Opioid Assessment for Patients with Pain [SOAPP] Version 1, SOAPP-R, and Brief Risk Interview) demonstrate limited and variable accuracy for classification of patients as at low or high risk for opioid use disorder or misuse (7).
- When prescribing initial opioid therapy, and periodically during chronic opioid therapy consult the state-controlled substance monitoring database, and use urine drug testing.
- Use particular caution in prescribing opioid pain medication with benzodiazepines.
- When opioids are reduced or discontinued, a taper slow enough to minimize symptoms and signs of opioid withdrawal (e.g., anxiety, insomnia, abdominal pain, vomiting, diarrhea, diaphoresis, mydriasis, tremor, tachycardia, or piloerection) should be used.
- Longer duration of previous opioid therapy might require a longer taper. When patients have been taking opioids for longer durations (e.g., for longer than one year), tapers of 10% per month or slower are likely to be better tolerated than more rapid tapers.
- Recognize and treat, or refer for treatment, patients with opioid use disorder.



-
- *Offer or arrange treatment with evidence-based medications to treat patients with opioid use disorder. Detoxification on its own, without medications for opioid use disorder, is not recommended for opioid use disorder because of increased risks for resuming drug use, overdose, and overdose death.*

These recommendations sound rational and non-controversial. However, a number of these issues require further discussion.

The CDC guidelines cite the *US Federal Agency for Healthcare Research and Quality* (AHRQ) reviews of opioid therapy for acute pain that each conclude nonopioid therapy is as effective as opioid therapy, with reduced risk of serious complications. The 2022 CDC Guidelines read:

- *Opioids are associated with small improvements versus placebo in pain and function, and increased risk of harms at short-term (1 to <6 months) follow up; evidence on long-term effectiveness is very limited, and there is evidence of increased risk of **serious** harms that appear to be dose dependent.*
- *At short-term follow up, evidence showed no differences between opioids versus nonopioid medications in improvement in pain, function, mental health status, sleep, or depression.*
- *Few trials evaluated opioid dosages of ≥ 90 MME/day (7). Opioid dosages of 50–90 MME/day were associated with a minimally greater (**below** the threshold for small) improvement in mean pain intensity compared with dosages of <50 MME/day; there was no difference in mean improvement in function (7). Analyses of placebo-controlled trials also found some evidence of a plateauing effect at ≥ 50 mg MME/day (7). One trial of more liberal dose escalation compared with maintenance of current dosage found no difference in outcomes related to pain or function (7).*
- *At the same time, risks for serious harms related to opioid therapy, including opioid misuse, overdose, and death, increase at higher opioid dosage, without a single point below which there is no risk (201). One cohort study from the clinical evidence reviews found higher dosages of opioids were associated with increased risk for all-cause deaths; one cohort study found modest associations between higher dose of long-term opioid and increased risk for falls and major trauma; one case-control*



study found opioid dosages of >20 MME/day were associated with increased odds of road trauma injury when the analysis was restricted to drivers.

- *Four observational studies identified in the clinical evidence reviews consistently found an association between higher doses of long-term opioids and risk for overdose or overdose death (7). Opioid dosages for chronic pain of 50 to <100 MME/day in observational studies have been associated with increased risks for opioid overdose by factors of 1.9–4.6 compared with dosages of 1 to <20 MME/day, and dosages of \geq 100 MME/day were found to be associated with increased risks for overdose 2.0–8.9 times the risk at 1 to <20 MME/day, after adjusting for confounders on the basis of demographics, comorbidities, concomitant medications, and other factors (55,202,203).*

- *In a national sample of Veterans Health Administration patients with chronic pain who were prescribed opioids, mean prescribed daily opioid dosage among patients who died from opioid overdose was 98 MME (median: 60 MME), compared with mean prescribed daily opioid dosage of 48 MME (median: 25 MME) among patients not experiencing fatal overdose (204). A narrative review conducted by FDA staff concluded that, although there is not a single dosage threshold below which overdose risk is eliminated (201), the studies included in the review indicated an increasing risk for serious adverse health outcomes, including misuse, overdose, and death associated with increasing opioid dose.*



- *No instrument has been shown to be associated with high accuracy for predicting opioid overdose, addiction, abuse, or misuse.*

The obvious conclusion, although unstated by the CDC, is that if the frequently used questionnaires and scoring systems for the risk of opioid misuse are not effective in identifying patients more likely to abuse or misuse opioids (Kaye et al, 2017) and if non-opioid therapy is as effective, the benefit versus risk calculation should be strongly in favor of non-opioid therapy, unless there are disease comorbidities that contraindicate many non-operative treatment options. The best predictors of opioid misuse are likely a past history of abuse of opioids or nonprescription drugs or alcohol, a family history of substance use disorder, and psychiatric co-morbidity.

While stating the recommendations should not constitute a standard of care or rule, the new CDC guidelines point out that:

- *If opioids are continued for subacute or chronic pain, clinicians should use caution when prescribing opioids at any dosage and should generally **avoid** dosage increases when possible.*
- ***Many patients do not experience benefit in pain or function from increasing opioid dosages to 50 MME/day or greater but are exposed to progressive increases in risk as dosage increases.*** *Therefore, before increasing total opioid dosage to more than 50 MME/day, clinicians should pause and carefully reassess evidence of individual benefits and risks. If a decision is made to increase dosage, clinicians should use caution and increase dosage by the smallest practical amount. The recommendations related to opioid dosages are not intended to be used as an inflexible, rigid standard of care; rather, they are intended to be guideposts to help inform clinician-patient decision-making.*



- *Additional dosage increases beyond 50 MME/day are progressively more likely to yield diminishing returns in benefits for pain and function relative to risks to patients as dosage increases further.*

“MME” is the “morphine milligram equivalent” dose. Multiple similar calculators are available to convert the dose of the opioids an individual patient is taking to what the equivalent dose of morphine would be. The new CDC guidelines contain a Table of MMEs, and the CDC publishes a [calculator](#).

Post-Operative Use of opioids is discussed in the new CDC guidelines:

Since 2017, multiple studies have found that many patients do not use all prescribed opioids after surgery and that prescribing a lower quantity of opioids postoperatively is associated with less opioid use without increases in pain score or in requests for refills of pain medication and without reductions in satisfaction with pain management (77–79). One study found that, after five common surgical procedures, median opioid consumption was three 5-mg oxycodone pills or less, and that following consensus recommendations intended to reduce unnecessary postoperative opioid prescribing published in 2018 and 2019 would still result in 47%–56% of pills prescribed remaining unused (248). Evidence exists of variation in opioid needs across patients undergoing the same proce-

dures attributable to factors including pain at discharge and previous opioid use (249). One study found that, although a majority of patients used no or few (>0 to <50 MME during their entire postoperative course) opioids, some patients required opioids for up to 15 days after surgery (250).

Opioids prescribed for surgery and other acute pain conditions that go unused are a potential source for misuse and diversion (249,253–255).

Further guidance on the amount of post-operative opioid to prescribe is available (Lovecchio et al., 2017).



The 2022 CDC guidelines discuss at length that patients on opioids over one year are very difficult to wean off opioids, and that fast weaning not infrequently results in patient harm by patients seeking illicit opioids with accidental and suicidal overdose consequences. These patients still may benefit from weaning to a lower dose or weaning to total discontinuation of opioids.

The Office of the Medical Director receives appeals from patients, their physicians, or their attorneys on opioid prescription denials by Utilization Review (UR). We do not see opioid prescriptions denied by UR in the first 90 days of use, and rarely see appeal of denials unless the patient has been on opioids for longer than one year. The new CDC guidelines are clear that for those on opioids for over one year, it may not be possible to wean them, and if they are weaned, the process must be very slow (likely years, not months). Thus, the goal of UR should be to prevent the next generation of long-term opioid users, and not to try to achieve the rarely achievable weaning of long-term users. To compound the error, the UR denials appealed to the BWC Medical Director usually have an attached pharmacist-dictated supplement suggesting weaning high-dose, long-term opioid users over a few-week period without documentation of how long the person has been taking opioids, which is exactly what the new CDC 2022 guidelines recommend against strongly.

Logically, the provider who first initiates opioid therapy after a workplace injury should limit the prescription to seven or fewer days for most cases, as that is when injury-related pain is usually worst. Instead, in the records of patients denied or having surgery, we see continued prescribing of opioids with no mention of when or why the opioids will be discontinued. Despite evidence that pre-operative opioid use leads to inferior surgical outcomes and higher complication rates, we do not see surgeons document in medical records that they discuss this with patients before surgery or begin opioid weaning before or shortly after surgery. Instead, we

FACTSHEET: Tennessee's Oversight of Opioid Prescribing and Monitoring of Opioid Use

frequently see the first several post-op visits occur with mid-level providers who continue opioids with no mention of when or why opioid tapering should occur. When surgical outcomes are suboptimal, opioids are continued, and the patient is referred to pain management where opioids are continued. Unfortunately, the words “hyperalgesia” and “nociplastic” each occur only once in the new 100-page CDC guidelines, with no clear recognition that opioid-induced hyperalgesia is frequent, is a nociplastic pain syndrome that will not respond to surgery, injections, etc., and that will benefit from opioid tapering.

The WCRI 2014 study mentioned at the beginning of this article documented 6% of all Tennessee workers' compensation claimants ended up on long-term opioid therapy. A clarification is the WCRI study statistics are for those injury claims in which the worker was opioid naïve on the date of injury. Durand and other authors from the TN Dept of Health and Vanderbilt published in 2019 a review of Tennessee BWC reported injuries cross-referenced with the TN prescription drug monitoring database, which records all prescriptions filled for controlled substances in Tennessee (Durand et al, 2019). This is a more recent data set (2013 to 2015) than the WCRI study. Four percent of opioid naïve injured workers became long-term opioid users. Those opioid naïve workers who received opioids for more than 19 days were 29 times more likely to become chronic opioid users compared to those who received opioid prescriptions for less than five days. Use for five to nine days increased the chance of becoming a long-term user by 1.8 times, compared to use for less than five days.



The Tennessee statute on Utilization Review (UR) in workers' compensation Section 50-6-124(f) says one purpose of the UR statute is “eradicating prescription drug abuse” by use of UR. The section states that Utilization Review is to occur for scheduled medications prescribed for “a period of time exceeding ninety (90) days from the initial prescription.” This is not saying UR cannot review opioid prescriptions before 90 days of use. This is saying if UR has not already reviewed opioid prescriptions before 90 days of use, there should be UR review at 90 days. From studies on how quickly patients become habituated to opioids, UR should be occurring much earlier in time.

Durand also has provocative statistics on a different opioid issue. The study identified 58,278 patients in the TN BWC database and cross-referenced them in the TN controlled substance database. While the study's main outcome was the rate of long-term opioid use in those who were opioids naïve on the day of injury, the number of workers with new injuries that were excluded from the study because they were already prescribed opioids before the day of injury is alarming. Subtracting the percentage of naïve from 100% yields the percentage of injured workers who were already using prescription opioids on the day of injury. Over twenty percent were already using prescription opioids on the day of injury. Whether this means opioids are impairing and causing injury, or whether this is a reflection of opioid use identifying a vulnerable population that is more susceptible to injury cannot be determined from this study methodology.

Summary

The new 2022 CDC guidelines on opioid therapy update by including newly published science and observations on trends over the six years since the 2016 guidelines were published. The main take away points related to workers' compensation patients are:

1. Providers should be limiting the duration of opioid therapy after injury and after surgery for the majority of patients. Preventing the next generation of chronic opioid patients should be a goal of UR in workers' compensation and not the current UR focus on those using opioids for years or decades without meaningful improvement in pain and function. UR should review opioid use much earlier in a patient's use.
2. Opioids for chronic non-cancer pain do not improve pain or function for most patients.
3. Weaning those who have been taking opioids for more than a year is challenging, and frequently unsuccessful. Weaning must be slow.

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Medical Abstracts of Interest

Regarding Opioid Use

*Selected by James B. Talmage, MD
Published verbatim from PubMed.gov, in the public domain.*

JAMA Network Open. 2019;2(7):e197222.

Prevalence and Risk Factors Associated With Long-term Opioid Use After Injury Among Previously Opioid-Free Workers

[Zoe Durand](#)^{1,2}, [Sarah Nechuta](#)^{1,3}, [Shanthi Krishnaswami](#)¹, [Eric L Hurwitz](#)², [Melissa McPheeters](#)^{1,4}

PMID: **31314119** PMCID: [PMC6647548](#)
DOI: [10.1001/jamanetworkopen.2019.7222](#)

Importance

Using opioids for acute pain can lead to long-term use and associated morbidity and mortality. Injury has been documented as a gateway to long-term opioid use in some populations, but data are limited for injured workers.

Objective

To evaluate the prevalence and risk factors of long-term opioid use after injury among workers in Tennessee who were opioid free at the time of injury.

Design, setting, and participants

This cohort study identified injured workers aged 15 to 99 years who reported only 1 injury to the Tennessee Bureau of Workers' Compensation from March 2013 to December 2015 and had no opioid prescription in the 60 days before injury. Participants were matched to their prescription history in Tennessee's prescription drug monitoring program. Analysis was conducted from November 2017 to March 2018. Logistic regression models were used to calculate adjusted odds ratios (ORs) and 95% CIs for associations of demographic, injury, and opioid use variables with long-term use.

Main outcomes and measures

The primary outcome was long-term opioid use, defined as having an opioid supplied for 45 or more days in the 90 days after injury.

Results:

Among 58 278 injured workers who received opioids after injury (18 977 [32.5%] aged 15-34 years, 27 514 [47.2%] aged 35-54 years, and 11 787 [20.2%] aged 55-99 years; 32 607 [56.0%] men), 46 399 (79.6%) were opioid free at the time of injury. Among opioid-free injured workers, 1843 (4.0%) began long-term opioid use. After controlling for covariates, long-term use was associated with receiving 20 or more days' supply in the initial opioid prescription compared with receiving less than 5 days' supply (OR, 28.94; 95% CI, 23.44-35.72) and visiting 3 or more prescribers in the 90 days after injury compared with visiting 1 prescriber (OR, 14.91; 95% CI, 12.15-18.29). However, even just 5 days' to 9 days' supply was associated with an increase in the odds of long-term use compared with less than 5 days' supply (OR, 1.83; 95% CI, 1.56-2.14).

Conclusions and relevance:

In this study of injured workers, injury was associated with long-term opioid use. The number of days' supply of the initial opioid prescription was the strongest risk factor of developing long-term use, highlighting the importance of careful prescribing for initial opioid prescriptions.

Medical Abstracts of Interest

Regarding Opioid Use

*Selected by James B. Talmage, MD
Published verbatim from PubMed.gov, in the public domain.*

JBJS Rev. 2020 Jun; 8(6): e0154

Factors Predictive of Prolonged Postoperative Narcotic Usage Following Orthopaedic Surgery

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PMID: **33006460**
DOI: [10.2106/JBJS.RVW.19.00154](https://doi.org/10.2106/JBJS.RVW.19.00154)

Background

The purpose of this comprehensive review was to investigate risk factors associated with prolonged opioid use after orthopaedic procedures. A comprehensive review of the opioid literature may help to better guide preoperative management of expectations as well as opioid-prescribing practices.

Methods

A systematic review of all studies pertaining to opioid use in relation to orthopaedic procedures was conducted using the MEDLINE, Embase, and CINAHL databases. Data from studies reporting on postoperative opioid use at various time points were collected. Opioid use and risk of prolonged opioid use were subcategorized by subspecialty, and aggregate data for each category were calculated.

Results

There were a total of 1,445 eligible studies, of which 45 met inclusion criteria. Subspecialties included joint arthroplasty, spine, trauma, sports, and hand surgery. A total of 458,993 patients were included, including 353,330 (77%) prolonged postoperative opioid users and 105,663 (23%) non-opioid users. Factors associated with prolonged postoperative opioid use among all evaluated studies included body mass index (BMI) of ≥ 40 kg/m (relative risk [RR], 1.06 to 2.32), prior substance abuse

(RR, 1.08 to 3.59), prior use of other medications (RR, 1.01 to 1.46), psychiatric comorbidities (RR, 1.08 to 1.54), and chronic pain conditions including chronic back pain (RR, 1.01 to 10.90), fibromyalgia (RR, 1.01 to 2.30), and migraines (RR, 1.01 to 5.11). Age cohorts associated with a decreased risk of prolonged postoperative opioid use were those ≥ 31 years of age for hand procedures (RR, 0.47 to 0.94), ≥ 50 years of age for total hip arthroplasty (RR, 0.70 to 0.80), and ≥ 70 years of age for total knee arthroplasty (RR, 0.40 to 0.80). Age cohorts associated with an increased risk of prolonged postoperative opioid use were those ≥ 50 years of age for sports procedures (RR, 1.11 to 2.57) or total shoulder arthroplasty (RR, 1.26 to 1.40) and those ≥ 70 years of age for spine procedures (RR, 1.61). Identified risk factors for postoperative use were similar across subspecialties.

Conclusions

We provide a comprehensive review of the various preoperative and postoperative risk factors associated with prolonged opioid use after elective and nonelective orthopaedic procedures. Increased BMI, prior substance abuse, psychiatric comorbidities, and chronic pain conditions were most commonly associated with prolonged postoperative opioid use. Careful consideration of elective surgical intervention for painful conditions and perioperative identification of risk factors within each patient's biopsychosocial context will be essential for future modulation of physician opioid-prescribing patterns.

Level of evidence

Prognostic Level IV. See Instructions for Authors for a complete description of levels of evidence.

Medical Abstracts of Interest

Regarding Opioid Use

Selected by James B. Talmage, MD

Published verbatim from PubMed.gov, in the public domain.

Comparative Study> Ann Surg. 2020 Dec;272 (6): 879-876.

Opioids After Surgery in the United States Versus the Rest of the World: The International Patterns of Opioid Prescribing (iPOP) Multicenter Study

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PMID: **3265793**

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Objective

The International Patterns of Opioid Prescribing study compares postoperative opioid prescribing patterns in the United States (US) versus the rest of the world.

Summary of Background Data

The US is in the middle of an unprecedented opioid epidemic. Diversion of unused opioids contributes to the opioid epidemic.

Methods

Patients ≥ 16 years old undergoing appendectomy, cholecystectomy, or inguinal hernia repair in 14 hospitals from 8 countries during a 6-month period were included. Medical records were systematically reviewed to identify: (1) preoperative, intraoperative, and postoperative characteristics, (2) opioid intake within 3 months preoperatively, (3) opioid prescription upon discharge, and (4) opioid refills within 3 months postoperatively. The median/range and mean/standard deviation of number of pills and OME were compared between the US and non-US patients.

Results

A total of 4690 patients were included. The mean age was 49 years, 47% were female, and 4% had opioid use history. Ninety-one percent of US patients were prescribed opioids, compared to 5% of non-US patients ($P < 0.001$). The median number of opioid pills and OME prescribed were 20 (0-135) and 150 (0-1680) mg for US versus 0 (0-50) and 0 (0-600) mg for non-US patients, respectively (both $P < 0.001$). The mean number of opioid pills and OME prescribed were 23.1 ± 13.9 in US and 183.5 ± 133.7 mg versus 0.8 ± 3.9 and 4.6 ± 27.7 mg in non-US patients, respectively (both $P < 0.001$). Opioid refill rates were 4.7% for US and 1.0% non-US patients ($P < 0.001$).

Conclusions

US physicians prescribe alarmingly high amounts of opioid medications postoperatively. Further efforts should focus on limiting opioid prescribing and emphasize non-opioid alternatives in the US.

Case Law: Learning from Last Year's Medical Causation Opinions

Jane Salem, Staff Attorney, Nashville



Often in litigated cases, the parties present differing medical opinions. For the judge—trained in law not medicine—deciding which doctor to accept is no easy task, especially when multiple doctors have reached varying conclusions. So what makes one medical opinion more persuasive than the other(s)? Below are summaries of opinions, all from 2022, that offer some valuable takeaways for doctors (lawyers and judges, too) in medical causation cases.

But first, to every physician reading this: rest assured, judges understand the difficulties in treating workers' compensation patients. Multiple causes for the injury are frequently possible, and the employee might be a poor historian or uncooperative. Further, payment is under a fee schedule, and you might be required to spend hours away from your practice to testify. In sum, judges know you're doing your best under the circumstances.

The Opinions

As a reminder, the statute says that the physician chosen from a panel is presumed correct regarding medical causation, but that presumption can be rebutted.

That is what happened in *Hagan v. Potomac*. The financial realities of modern medicine often dictate that staff other than the doctor see the employee. But that was a problem for the employer in this case.

The employee had reported to both the panel doctor and a later, unauthorized physician that she felt pain in her arm and shoulder while moving pallets at work. The authorized physician wrote in a causation letter that supraspinatus tears can be caused by acute events, but an acute injury did *not* occur in this case, and the employee's shoulder condition was not work-related. The employee then saw another physician, who performed surgery and concluded the injury arose from employment.

In adopting the latter's opinion, the Court found it significant that he had the opportunity to view the internal structure of the employee's shoulder during surgery. But also, the panel doctor, per the Appeals Board, "did not actually see the patient in a clinical setting but reviewed and 'signed off on' the reports of the nurse practitioner."

The doctor's understanding—or misunderstanding—of the mechanism of injury was important in another recent case. In *Lawson v. Amazon.com*, after an expedited hearing, the trial judge found the presumption on causation was rebutted, and the Appeals Board affirmed.

The unauthorized physician saw him over several months and based his opinion on diagnostic studies and observations regarding the results from conservative treatment. In contrast, the panel physician saw him once, and his report stated that the employee gave a history of pain while moving an item at work, but he later wrote that “no specific incident occurred.” Which was it?

Complete knowledge regarding the mechanism of injury, along with an understanding of the employee's actual job “setup,” made the difference in yet another case from last year, this one involving a cumulative trauma injury.

In *Carr v. Windham Prof'ls*, a Supreme Court Special Workers' Compensation Panel agreed with the trial court that an employer's expert “who never examined or met the employee” nonetheless gave the most persuasive opinion. None of the physicians in this case was presumed correct; they all had equal footing.

The employee spent hours on the phone for work every day. Her physician treated her spine and neck for several years and performed two surgeries. After receiving a second opinion, the employee reported a neck injury to the employer, claiming that tilting her head to one side while using the phone for hours caused the injury. The employer denied the claim.



The Panel held that the unauthorized doctor's opinion was speculative because he said it was merely “possible” that the injury arose from employment, and he accepted the employee's account of how she suffered a repetitive injury without knowing her job description or actual duties. Likewise, the second-opinion doctor, who wasn't a surgeon, was treating her mostly for another condition and did not know she had been off work for close to a year before the alleged cumulative injury.

What gave the employer's records-review physician the edge was, he considered “the most complete set of medical information in arriving at his conclusion and was

the most detailed in his analysis,” the Panel wrote. They reasoned: “He thoroughly explained Ms. Carr’s work setup would cause a cervical sprain instead of degeneration and, while Ms. Carr primarily tilted her head to one side, her records showed degeneration on both sides of her neck.”

Finally, in *Grissom v. AT&T Servs.*, the panel doctor might have jumped the gun a bit in forming his opinion. The presumption was rebutted.

The employer accepted the employee’s claim for a shoulder injury and authorized surgery. The employee later developed neck pain and tingling down into his arm and hand. The panel physician called it a “new complaint” and recommended an EMG but also questioned whether it would be covered by workers’ compensation. At the next visit, he doctor said an MRI should be done but again cast doubt on whether the condition was part of the comp claim. Then, at the final visit, he said he would see the employee under a separate workers’ comp claim, “p.r.n.”

The employee then saw another doctor, who diagnosed suprascapular neuropathy, ordered an MRI, and later performed a release. Afterward, he responded to a causation letter that the injury and need for surgery was “causally related to [his] work injury ... by greater than 50% considering all causes.”

The trial court and Board read the panel doctor’s notes closely and concluded that he never actually gave a diagnosis and merely speculated regarding causation, repeatedly writing it did not appear to him that the “new complaint” would be covered under the original claim. He reached that conclusion without considering MRI results.

The Board added that none of the panel doctor’s reports mentioned suprascapular neuropathy as a potential diagnosis, and, “It is incongruous for Employer to argue that [he] offered a causation opinion for a condition that had not yet been diagnosed.”



Common Threads

None of these cases turned on any single act or omission by the physicians. Rather, the physicians whose opinions were accepted by the courts share a few commonalities:

- They understood how the employee allegedly became injured and sought additional information when it would be helpful.
- They actually saw, interacted, and followed up with the employee.

-
- They were thorough and cautious.
 - They wrote detailed records/reports, and in some cases gave in-depth testimony.
 - Likely understanding the potential for litigation, they used language that mirrored the legal definition of “injury,” or other words that led the judges to conclude their opinion fell within it.

Sometimes, as a doctor you might do all of the above, and still, the judge accepts another’s opinion. As a famous Jerseyite said, “That’s life.”¹ And, as a famous Tennessean once added, “Shake it off.”² Then move on to the next case. Judges are occasionally deemed to have erred, too.

¹Frank Sinatra

²Taylor Swift

AdMIRable Review Editorial Staff

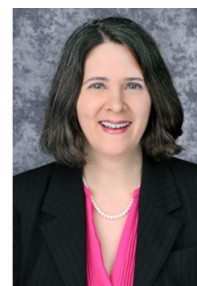
Kyle Jones

Kyle Jones is the Communications Coordinator for the Tennessee Bureau of Workers' Compensation. After receiving his bachelor's degree from MTSU, he began putting his skillset to work with Tennessee State Government. You will find Kyle's fingerprints on many digital and print publications from videos to brochures published by the Bureau. Kyle believes that visuals like motion graphics can help explain and break down complex concepts into something more digestible and bring awareness to the Bureau's multiple programs that are designed to help Tennesseans.



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