

AdMIRable REVIEW

JOURNAL OF THE TENNESSEE
MEDICAL IMPAIRMENT RATING REGISTRY

**PAIN
MANAGEMENT
OPINIONS
CASE LAW
SUMMARY**

**PHYSICIAN
SPOTLIGHT
JAMES
VARNER**

**RATING
OPIOID ADDICTION**

**TREATMENT
ALTERNATIVES
TO OPIOIDS**

**PRESUMPTION
OF ACCURACY**
Not all are created equal.

**EMPLOYMENT
IS GOOD MEDICINE**
Treatment outcomes
for patients who
return to work.



EDITOR-IN-CHIEF

Abbie Hudgens, MPA

BWC Administrator
Nashville, TN

EDITORIAL BOARD

Christopher Acuff, PHD

University of Tennessee, Chattanooga, TN

**Christopher R. Brigham, MD,
MMS, FACOEM, FIAIME**

Brigham and Associates, Inc.,
Hilton Head Island, SC

Robert R. Davies, Esquire

Director, BWC Legal Services, Nashville, TN

LaShawn Debose-Pender

Coordinator, Memphis Region, Memphis, TN

Suzu Douglas, RN

BWC Medical Services Coordinator, Nashville, TN

Mark Finks, Esquire

BWC Legal Services, Nashville, TN

Jeff Francis, MA

BWC Assistant Administrator, Nashville, TN

Troy Haley, Esquire

Director, BWC Administrative Legal Services

BWC Legislative Liaison, Nashville, TN

Charles S. Herrell, Esquire

Ombudsman Attorney, Nashville, TN

James W. Hicks, Esquire

Ombudsman Attorney, Nashville, TN

**Douglas W. Martin, MD,
FACOEM, FAAFP, FIAIME**

UnityPoint Health, St. Luke's
Occupational Medicine, Sioux City, IA

Darlene C. McDonald

Ombudsman, Nashville, TN

Robert B. Snyder, MD

BWC Medical Director, Nashville, TN

Kenneth M. Switzer

Chief Judge, TN CWCC, Nashville, TN

Amanda M. Terry, Esquire

Director, UEF/EMEEF, Nashville, TN

EDITORIAL STAFF

MANAGING EDITOR

Jay Blaisdell, MA

TN MIRR Coordinator
Nashville, TN

MEDICAL EDITOR

James B. Talmage, MD

BWC Assistant Medical Director
Cookeville, TN

LEGAL EDITOR

Jane Salem, Esquire

Staff Attorney, TN CWCC
Nashville, TN

RETURN-TO-WORK EDITOR

Brian Holmes, MA

BWC Director, MOST
Nashville, TN

COPY EDITOR

Sarah Byrne, Esquire

Staff Attorney, TN CWCC
Nashville, TN

DESIGN EDITOR

Kyle Jones

BWC Communications
Nashville, TN



Tennessee's first "Workmen's Compensation Act" was passed by the General Assembly and signed into law by Governor Albert Roberts in April 1919. It took effect on July 1, 1919.

Views expressed in AdMIRable Review are solely those of the authors and may not reflect the official policy or position of the American Medical Association, the Tennessee Bureau of Workers' Compensation, the Tennessee Court of Workers' Compensation Claims, the Tennessee Workers' Compensation Appeals Board, or any other public, private, or nonprofit organization. Information contained in AdMIRable Review is for educational purposes only and should not be considered to be legal or medical advice. In all cases, you should consult with a licensed professional familiar with your particular situation before making any decisions.

TENNESSEE BUREAU OF WORKERS' COMPENSATION
Physician Education Conference
February 29, 2020

Nashville

in association with the
International Workers' Compensation Foundation

Registration is now open for the Tennessee Bureau of Workers' Compensation Physician Education Conference 2020. The conference will take place on Saturday, February 29, 2020, at the Nashville office, 220 French Landing Drive, Ste. 1-B, Nashville, TN 37243.

ATTENDEES, EXHIBITORS, AND SPONSORS WELCOME!

The special one-day program provides information of particular importance for physicians, attorneys, and others involved in workers' compensation.

DOWNLOAD THE CONFERENCE BROCHURE

It includes the complete agenda, schedule, and attendee registration instructions.

**DOWNLOAD EXHIBITOR & SPONSOR
REGISTRATION /PAYMENT**

Continuing Education

Application is pending for CME and Tennessee MCLE credits.

Hotel Accommodations

(conference registration not included)

Overnight lodging is available at Candlewood Suites Nashville-Metro Center, located at 270 Venture Circle, Nashville, TN 37228. A block of rooms has been reserved at the rate of \$139.00 plus applicable taxes. Call the hotel's direct number, (615) 787-8787, and give group name Workers' Compensation Physician's Conference.



Or book online at <https://tinyurl.com/TNPHYS20>.

Please let us know if you have any questions or we can be of additional assistance. Contact the International Workers' Compensation Foundation, Inc., at IWCF@bellsouth.net or (386) 677-0041.

We hope to see you at the conference!

In this Issue of AdMIRable Review

Volume 8, Fall 2019, Pages 851 - 913

Medical

MIR Physician Spotlight: James Varner, MD

[Read on page 855 >](#)



Medical

Rating Opioid Use Disorder for Permanent Impairment

[Read on page 856 >](#)



Medical

Opioids and the Pain Epidemic: Misunderstanding Pain

[Read on page 863 >](#)



Legal

Presumption of Accuracy: Not All Are Created Equal

[Read on page 867 >](#)



Medical

Chronic Pain Management: There Are Alternatives to Opioids.

[Read on page 871 >](#)



Medical

The Medical Benefits of Work and the Health Costs of Unemployment

[Read on page 877 >](#)



Return to Work / Stay at Work

Return to Work Awareness: Why Ignorance is Not Bliss

[Read on page 880 >](#)



Legal

Pain Management Opinions Recent Case Law

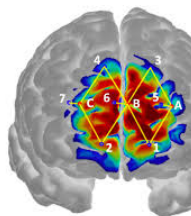
[Read on page 884 >](#)



Medical

Selected Medical Abstracts Regarding Opioid Use

[Read on page 887 >](#)



News

A Fond Farewell to Presiding Judge Davidson

[Read on page 910 >](#)



MIR Physician Spotlight

James Varner, MD

Dr. James Varner's MIR reports are invariably concise, well supported, and accurate. His participation in the MIR Registry stems from his longtime practice encompassing workers' compensation and liability injuries. The registry, he believes, is an invaluable source for impairment rating discovery, and it is appropriate that physicians who have additional impairment training and expertise be afforded their unique role in the dispute resolution process.



As an undergraduate student, Dr. Varner attended the University of Mississippi on a full four-year basketball scholarship. He then attended the University of Tennessee Medical School, where he graduated "with distinction" and was selected to the AOA Medical Honorary



Victory over Vanderbilt, senior year of college.

Society. He completed a two-year general surgery residency at Parkland Hospital in Dallas, Texas, and returned to Memphis to complete an orthopedic surgery residency at the Campbell Clinic. Finally, he completed a fellowship in sports medicine and hand surgery at the University of Virginia prior to returning to the Memphis area, where he has been in practice for over thirty years.

He is currently a partner in OrthoSouth, a practice encompassing over fifty orthopedic surgeons, physiatrists, pain management specialists, and physician extenders. Dr. Varner currently runs the OrthoSouth Outpatient Clinic and treats all manner of orthopedic injuries and conditions.

Dr. Varner has been married to his wife, Suzanne, for 41 years. They enjoy visiting their daughter, Austin Macaskill, who has an interior design business in New York City. Suzanne has her own interior design business in Memphis.



Dr. Varner is an accomplished sculptor. He explained, "One of my patients was an instructor at the College of Art and talked me into taking classes." He also enjoys the outdoors, including fishing, hiking, and bird watching. He is active in

his local ornithological society and enjoys photographing wildlife, particularly birds. He has photographed over 200 individual species in Shelby County alone. Additionally, in his spare time, he enjoys reading, particularly periodicals and commentaries related to religion, culture, politics, and economics.



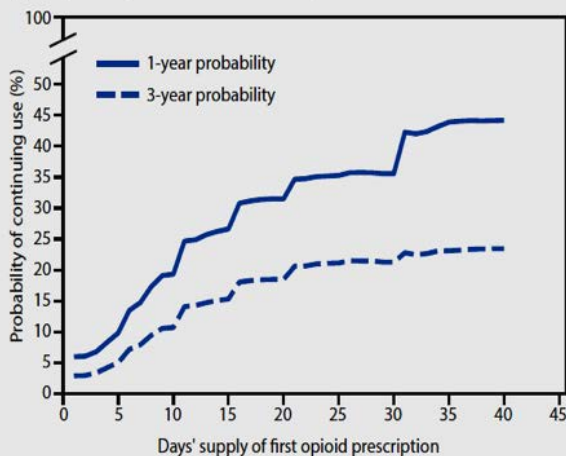
Rating Opioid Use Disorder for Permanent Impairment

James B. Talmage, MD



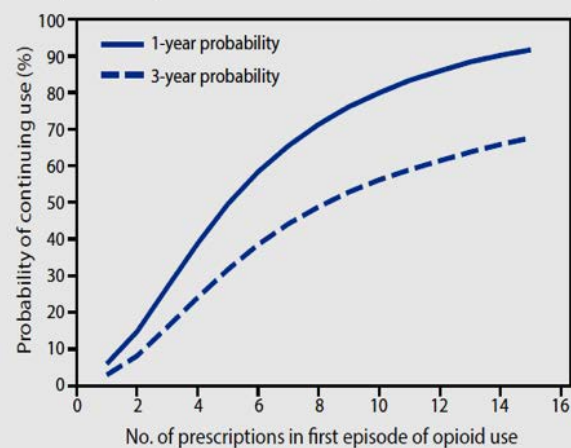
Opioids are commonly used for acute, painful injuries and surgeries in workers' compensation and in general health care (Durand, 2019). When acute pain has not been relieved by other therapy options, opioids are frequently added but rarely discontinued if ineffective (Durand, 2019). In one health insurance company data base (Brat, 2018) of 568,612 patients who were "opioid naïve" before surgery but who received a prescription for an opioid after surgery, 5906 (0.6%) patients had a physician subsequently code the diagnosis of opioid dependence, abuse, or overdose. Physicians currently prescribing opioids for a patient may have a bias against labeling their own patient with one of these diagnoses (Fitzgibbon, 2010), so this probably represents the "tip of the iceberg." The duration of opioid therapy after surgery was the strongest predictor of ultimate misuse. The number of days for which the initial prescription provided medication and the total number of post-op prescriptions issued each predict long term use, with a clear "dose-response relationship" (Shah, 2017).

FIGURE 1. One- and 3-year probabilities of continued opioid use among opioid-naïve patients, by number of days' supply* of the first opioid prescription — United States, 2006–2015



* Days' supply of the first prescription is expressed in days (1–40) in 1-day increments. If a patient had multiple prescriptions on the first day, the prescription with the longest days' supply was considered the first prescription.

FIGURE 2. One- and 3-year probabilities of continued opioid use among opioid-naïve patients, by number of prescriptions* in the first episode of opioid use — United States, 2006–2015



* Number of prescriptions is expressed as 1–15, in increments of one prescription.

opioid prescribing. Third, information on pain intensity or

Studies show that surgeons commonly prescribe more opioid pills after surgery than patients actually take for post-operative pain (Bicket, 2017; Sabatin, 2018), leaving residual pills in the medicine cabinet for use with the other minor injuries of life, and thus increasing the chances of developing an opioid use disorder. Left-over opioids can also be diverted to other family members, or the "black market."

Complications of treatment are typically legally conceptualized as flowing from or being caused by the illness or injury that led to the treatment. Thus, a myocardial infarction during surgery or a pulmonary embolus on day two after lower limb surgery is considered a complication of surgery. If the condition that required the surgery is administratively considered as eligible for continued treatment and ratable for permanent impairment, then the complication(s) of the surgery is/are also frequently eligible for treatment and impairment rating. Similarly, if a work-related injury or illness is treated with opioids, and if an opioid use disorder subsequently develops, it will likely be looked upon as a ratable complication of the injury.

How is a physician to rate the impairment for an individual with no history of substance use disorder before a work injury, who is prescribed opioids for the work-related injury, and who subsequently develops Opioid Use Disorder?

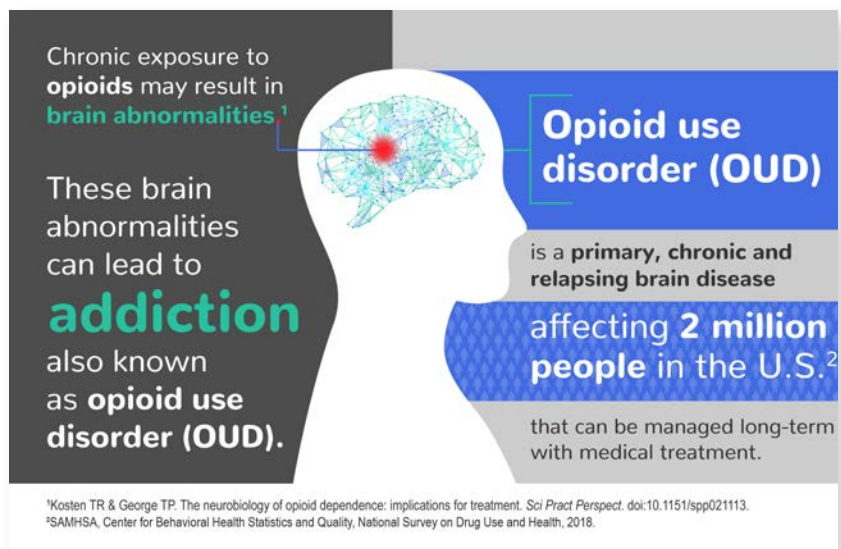
First Question: What Is the Actual Diagnosis?

Has it been substantiated in the medical records? Chapter 14 of the *AMA Guides to the Evaluation of Permanent Impairment, Sixth Edition*, uses the American

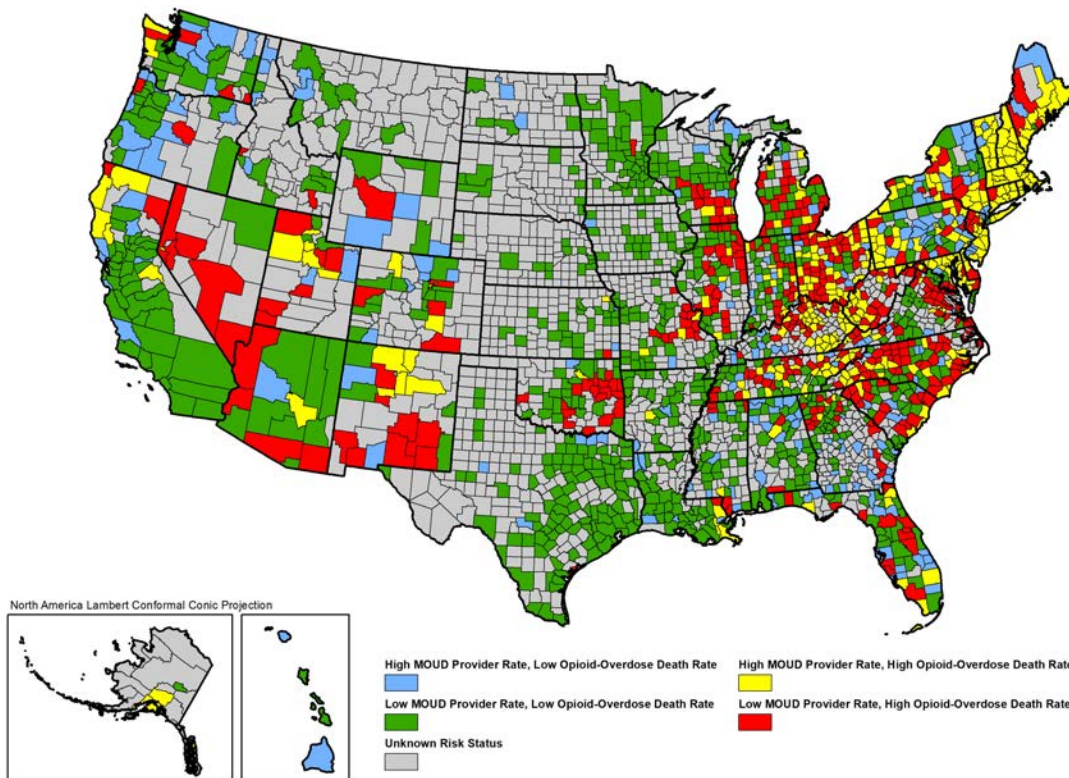
Psychological Association's Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR), published in 2000, for rating Mental Disorders. DSM-IV-TR bases the diagnosis on one or more of four criteria present in a twelve-month period. The *AMA Guides, Sixth Edition*, specifically says that substance use disorders are NOT ratable by this chapter (p.349). Mental Health professionals and Addictionologists today use the DSM-5, published in 2013 for diagnosis and treatment planning. DSM-5 lists eleven criteria and classifies the disorder as "Mild" if two or three are present, "Moderate" if four or five are present, and "Severe" if six or more are present (ASAM, 2019). Thus, a physician may be asked to rate impairment for an opioid use disorder diagnosed by the DSM-5 criteria using the *Guides* that references different DSM-IV-TR diagnostic criteria, and with the *AMA Guides* saying NOT to rate this problem from the Mental and Behavioral Health chapter. The physician tasked with rating this disorder will have to verify the diagnosis. The safest course of action would be to use the DSM-5 criteria that best represent the current science.

Second Question: Is the Patient at MMI?

This topic has been reviewed in detail in the *AMA Guides Newsletter*, with the short answer that chronic opioid therapy may well be an obstacle to being at MMI. If the person is still being prescribed opioids, despite the prescribing provider's records



<https://braeburnrx.com/opioid-use-disorder/>



"Map shows counties with opioid high-risk, which includes low rate of medication for treatment of opioid use disorder providers and high rates of opioid overdose death (red). Image credit: Rebecca L. Haffajee, JD, PhD, MPH; Lewei Allison Lin, MD, MS; Amy S. B. Bohnert, PhD, MHS; Jason E. Goldstick, PhD." Published by University of Michigan on June 28, 2019

documenting issues of frequent early refills, "lost" prescriptions, failed pill counts, and non-compliant urine drug tests, and if this person has not had a trial of treatment by an addictionologist or a psychiatrist who has certification for addiction assessment and medication assisted therapy [methadone or suboxone for addiction], then the patient is logically not yet at MMI, and thus not ratable yet. Referral for both substantiation of the diagnosis and for initiation of treatment would be necessary before the diagnosis of opioid use disorder is confirmed, and the status "at MMI" is confirmed, and thus the impairment is ratable.

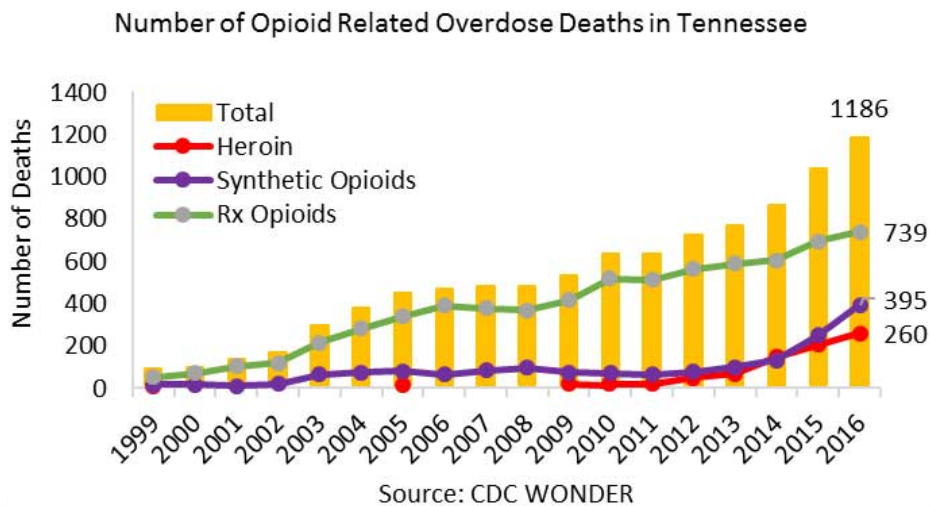
Assuming the patient has the verified diagnosis of opioid use disorder and is at MMI, then how does a physician rate the permanent impairment?

The *Guides*, Sixth Edition, Mental and Behavioral chapter requires that the doctor (psychiatrist) rate impairment using three different scales or systems: (1) The Global Assessment of Functioning would usually be in the mild or moderate occupational dysfunction category (5% - 10% Whole Person Impairment, or WPI), (2) the BPRS measures many psychotic symptoms and major mental illness symptoms that are not typical for opioid use disorder, and (3) the PIRS assesses function in many categories that are not typically impaired or only mildly impaired in opioid use disorder. Thus, using the *AMA Guides* Mental and Behavioral Disorders system and choosing the rating derived from the middle (median) of these three assessment systems (p. 357) may result in a 0% rating despite the consequences of

the disorder. This may be part of the rationale for the *Guides's* instruction not to use the Mental and Behavioral Disorder chapter.

The literature on Medication Assisted Therapy describes many patients who have experienced good outcomes. On stable doses of methadone or suboxone they have no relapses, no limitations in Activities of Daily Living (ADLs), and no issues with employment in non-safety sensitive occupations other than the ADL limitations from the injury or illness that led to the opioid abuse disorder.

Regarding occupational function, according to the Rand Corporation systematic review, "three RCTs and two observational studies found no significant differences between MAT patients and persons with OUD treated without medication" (Maglione, 2018, p.30). The AMA *Guides's* philosophy is based on impairment of ADLs. Within the workers' compensation system, impairment ratings are intended to be a baseline for eventual compensation when the limitation of these ADLs limits occupational capability. This would suggest little or no impairment in such positive outcome cases.



In such patients the only "impairment" would appear to be the Burden of Treatment Compliance, discussed in the *Guides* Section 1.8i. In the discussion of MMI the text says:

In certain instances, the treatment of an illness may result in apparent total remission of the person's signs and symptoms. Examples include the treatment of hypothyroidism with levothyroxine and the treatment of type 1 diabetes mellitus with insulin. However, if the examiner concludes that with such permanent treatment based on objective findings, the patient has actually not regained his or her previous function, and if the *Guides* has not provided specific criteria to rate such impairment, the physician may choose to increase the impairment estimate by a

small percentage (e.g. 1% to 3%). Such a discretionary impairment is provided only once and is not to be duplicative of impairment provided for BOTC (p.26).

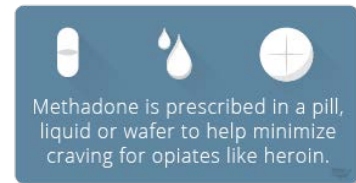
This could be cited as the rationale for a 1-3% Whole Person Impairment (WPI) rating depending on how often the patient must have scheduled physician office visits for treatment.

The Rand review states:

Regarding cognitive outcomes, a large observational study found that MAT users had twice the risk of injurious traffic accidents as nonusers (low Quality of Evidence). Two studies reported that MAT users performed significantly worse in working memory and cognitive speed than matched controls with no history of substance use disorder (SUD) or opioid use (very low Quality of Evidence).

Thus there may be consequences beyond the requirement for at least monthly office visits. While the Quality of Evidence cited is far from scientific criteria, this appears to be the current "evidence."

The above rationale for a 1-3% WPI rating isn't helpful for the patient with opioid use disorder, and with frequent relapses, frequent involuntary job loss, ongoing aberrant opioid use, etc. Modern conceptualizations of opioid abuse disorder places the problem in the brain (Hyman, 2006: US Surgeon General, 2019). Citing that concept, the rater could opine an impairment using the Central Nervous System chapter, Table 13-19 (p. 334), Global Assessment of Functioning (GAF) Impairment Score. Rating such sad scenarios is complicated by assessing whether such a scenario would be declared to be "at MMI" with ongoing abuse. This use of the Central Nervous System chapter would be outside the usual application (like traumatic brain injury, stroke, etc.) for which the chapter is usually used in workers' compensation cases.



This is a difficult diagnosis to rate, and hopefully one that is not frequently encountered. We hope state legislative efforts and ongoing provider education efforts to decrease opioid prescribing will result in fewer cases of Opioid Use Disorder, and in fewer cases in which a physician is asked to rate the impairment for what seems to be a real problem, but what seems to be "unratable" by the *Guides*.

References

- American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision. (2000). Washington DC: American Psychiatric Association.
- American Psychiatric Association (2013). Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition. Arlington, VA, American Psychiatric Association.
- American Psychiatric Association. (2013). DSM-5 Criteria for Diagnosis of Opioid Use Disorder. Retrieved from <https://www.asam.org/docs/default-source/education-docs/dsm-5-dx-oud-8-28-2017.pdf>
- Barth, R., (2011). Prescription Narcotics: An Obstacle to Maximum Medical Improvement. AMA Guides Newsletter. March/April.
- Bicket, M., Long, J., Pronovost P., et al. (2017). Prescription Opioid Analgesics Commonly Unused After Surgery A Systematic Review. JAMA Surg. doi:10.1001/jamasurg.2017.0831.
- Brat G., Agniel D., Beam A., et al. (2018). Postsurgical Prescriptions for Opioid Naive Patients and Association with Overdose and Misuse: Retrospective Cohort Study. [Open Access] BMJ 2018;360:j5790 <http://dx.doi.org/10.1136/bmj.j5790> .
- Durand, Z, Nechuta, S., Krishnaswami, S., et al. (2019). Prescription Opioid Use by Injured Workers in Tennessee: A Descriptive Study Using Linked Statewide Databases. Annals of Epidemiology. 32: 7-13.
- Fitzgibbon D., Rathmell, J., Michna, E., et al. (2010). Malpractice Claims Associated with Medication Management for Chronic Pain. Anesthesiology. 112: 948-56.
- Hyman, S., Malenka, R., Nestler, E., (2006). Neural Mechanisms of Addiction: the Role of Reward -Related Learning and Memory. Ann Rev Neurosci. 29: 565-98.
- Maglione, M., Raaen L, Chen C, et al. (2018). Effects of Medication Assisted Treatment (MAT) for Opioid Use Disorder on Functional Outcomes: A Systematic Review. Rand National Defense Research Institute. https://www.rand.org/pubs/research_reports/RR2108.html.
- Sabatino, M., Kunkel, S., Ramkumar, D., et al. (2018). Excess Opioid Medication and Variation in Prescribing Patterns Following Common Orthopaedic Procedures. J Bone Joint Surg Am. 100:180-8 <http://dx.doi.org/10.2106/JBJS.17.00672> .
- Shah, A., Hayes, C., Martin, B., (2017). Characteristics of Initial Prescription Episodes and Likelihood of Long-Term Opioid Use — United States, 2006–2015. MMWR Morb Mortal Wkly Rep 2017;66:265–269.doi: <http://dx.doi.org/10.15585/mmwr.mm6610a1> .
- US Surgeon General. (2016). The Neurobiology of Substance Use, Misuse, and Addiction. Retrieved from <https://addiction.surgeongeneral.gov/executive-summary/report/neurobiology-substance-use-misuse-and-addiction> .

DSM-5 Criteria for Diagnosis of Opioid Use Disorder

Diagnostic Criteria*

These criteria not considered to be met for those individuals taking opioids solely under appropriate medical supervision.

Check all that apply

	Opioids are often taken in larger amounts or over a longer period of time than intended.
	There is a persistent desire or unsuccessful efforts to cut down or control opioid use.
	A great deal of time is spent in activities necessary to obtain the opioid, use the opioid, or recover from its effects.
	Craving, or a strong desire to use opioids.
	Recurrent opioid use resulting in failure to fulfill major role obligations at work, school or home.
	Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids.
	Important social, occupational or recreational activities are given up or reduced because of opioid use.
	Recurrent opioid use in situations in which it is physically hazardous
	Continued use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by opioids.
	*Tolerance, as defined by either of the following: (a) a need for markedly increased amounts of opioids to achieve intoxication or desired effect (b) markedly diminished effect with continued use of the same amount of an opioid
	*Withdrawal, as manifested by either of the following: (a) the characteristic opioid withdrawal syndrome (b) the same (or a closely related) substance are taken to relieve or avoid withdrawal symptoms

Total Number Boxes Checked: _____

Severity: **Mild:** 2-3 symptoms. **Moderate:** 4-5 symptoms. **Severe:** 6 or more symptoms

*Criteria from American Psychiatric Association (2013). Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition., Washington, DC, American Psychiatric Association page 541. For use outside of IT MATTTRs Colorado, please contact ITMATTTRsColorado@ucdenver.edu

Opioids and the Pain Epidemic

Misunderstanding Pain

**Dan Hendrick, PT, CEAS III, ASTYM Cert., BS*

**Sandy Murphy, DPT, ASTYM Cert.*



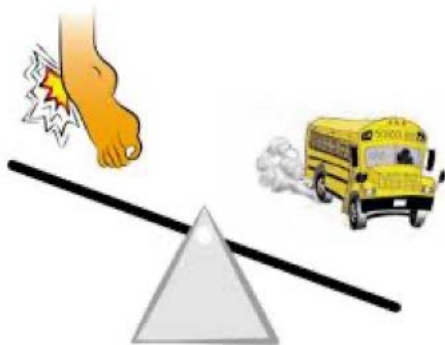
Over twenty-five million adults suffer from chronic pain in the United States on a daily basis, and over 126 million adults experience some pain over a three-month reporting period (Nahin, 2015). Children and adolescents struggle with persistent pain, with various studies asserting that one in six experience persistent pain (Eccleston, 2003; Perquin, 2000). To combat those staggering numbers, opioid prescriptions written to address patient pain are at 259 million (Manchikanti, 2010). Most alarming of all, Americans consume eighty percent of the global supply of opioids and yet we are only five percent of the total population (Manchikanti, 2010). These opioids, are responsible for death rates that are three times more frequent when compared to heroin and cocaine use combined (Paulozzi, 2012). When looking in the workers' compensation arena, a recent study by the Washington State Department of Labor and Industries Worker's Compensation Division showed workers with pre-injury opioid or benzodiazepine use were more likely to:

have compensable claims and be on opioids or benzodiazepines, respectively, after injury. Cases with chronic opioid use pre-injury nearly universally receive opioids post-injury. Pre-injury opioid and benzodiazepine use may increase the risk of disability after work-related injury (Nkyekyer, Fulton-Kehoe, & Spector, 2015).

The Washington State study was not small, encompassing 543,000 claims from 2012 to 2015.

Obviously, the pain epidemic has ripple effects in all of society, producing chronicity and eventual disability. In the work arena, work tolerance—work tasks we perceive we can do—is negatively impacted due to pain. Thus both our work ability and work tasks a person can do today are impaired. Treatments to address

the underlying issue of impaired work tolerance have centered on opioid use to lessen pain. But as the Washington State study shows, those treatments do increase risk of further injury if the injured employee returns to work.



Misunderstanding Pain

The opioid crisis has many root causes, but our understanding of pain—as both clinicians and patients—has influenced that crisis. We have both a pain problem and an opioid problem in the United

States, with one influencing the other, and sometimes one as a result of the other. The solution to that problem is multifactorial, but a large part of the solution can be found in our common misconceptions and misunderstandings of the mechanism of pain and that mechanism's application to recovery and treatment. For clinicians, pain theory has centered on pain as an input, the traditional biomedical model of pain. In other words, an injury happens to a tissue—from surgery, accident, or repetitive use—and the pain results from that injury. An example of that type of pain would be an ankle sprain.

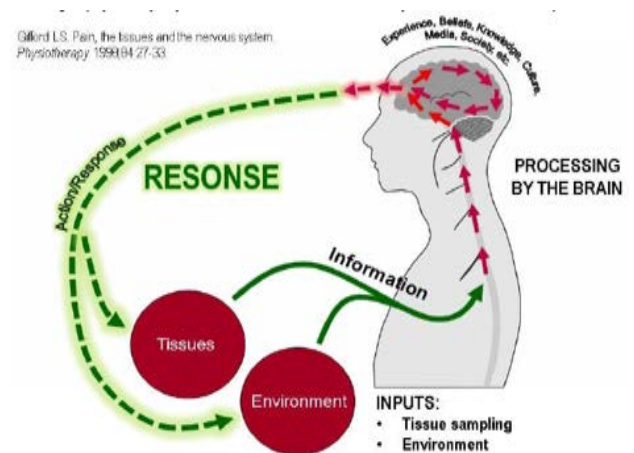
An employee steps off of a curb at work in icy conditions, turns his or her ankle and sustains a severe ankle sprain. The employee cannot walk on that ankle immediately following the injury. Pain occurs almost simultaneously as the injury, and pain is a result of the injury due to “pain” fibers carrying the message to the brain. In this scenario, pain is an input, a direct result of the injury. But, what if the employee sees a bus coming at him or her as he or she turns that ankle and sustains the same severe ankle sprain? The employee figures how to get out of the way of the bus—by walking on that same severely sprain ankle that she could not walk on when the bus was not coming. If pain is purely an input, then the severe sprain should keep the employee from getting out of the way of the bus. But pain is not purely an input. Consider some other examples.

- Forty percent of people with disc bulges have no back pain (Yukawa, 1996; Matsu, 2005).
- Two thirds of people over the age of seventy have rotator cuff tears and no pain (Milgrom 1995).
- One quarter to one half of MRIs show knee arthritis, yet have no accompanying knee pain (Bedson & Croft, 2008).

Clearly, more is going on than pain as an input, where the severity, duration and frequency of the pain are directly linked to the tissue damage.

The biopsychosocial model of pain states that pain is a multiple system output activated by an individual's pain neural signature, which is activated when the brain concludes the tissues are in danger and action is required. Tissues send nociceptive (danger not pain) messages to the brain and then the brain decides which threat is more important. In the case of the injured employee with the severe ankle sprain, is the ankle injury more important or the bus that is coming at me more important? The brain decides when pain occurs.

Essentially, the brain is the alarm system, the message is the trigger, and pain is the alarm that is decided upon by the brain. When an injury happens, from any origin, the brain decides whether the pain alarm sounds or stays silent.



Think about the implications and applications of this shift in pain theory. The brain is the best pain medicine ever created. Remember that bus? All of us have the ability to block pain in an emergency situation if the brain decides that action is necessary. Injured tissues do heal, pain can still occur in patients, and that pain is real. Just like a sensitive house alarm that goes off when the wind blows, pain can also “go off” and stay on, even when the tissues are healed. In patient cases where the pain is out of proportion to the tissue pathology, the alarm is still turned on. It is possible to shut down that alarm system. Physical and occupational therapy can help dampen that pain alarm.

If we address the pain problem through non-opioid alternatives such as Physical and Occupational Therapy, the current prescription crisis can be addressed and improved. This is the first article of a series. In the next two issues of *AdMIRable Review*, application of the biopsychosocial pain model, through pain neuroscience education, will be reviewed.

References

- Bedson, J., Croft, P., (2008). The Discordance between Clinical and Radiographic Knee Osteoarthritis: A Systemic Search and Summary of Literature. *BMC Musculoskeletal Disorders*. 9(116).
- Eccleston, C., Malleon, P., Clinch, J., Connell, H., Sourbut, C., (2003). Chronic Pain in Adolescents: Evaluation of a Program of Interdisciplinary Cognitive Behavior Therapy. *Arch Dis Child*. 88 (10).
- Eccleston, C., Malleon, P., (2003). Managing Chronic Pain in Children and Adolescents. *BMJ*. 326(7404).
- Kjaer, P., Leboeuf-Yde, C., Korsholm, L., Sorensen, J., Bendix, T., (2005). Magnetic Resonance Imaging and Low Back Pain in Adults: a diagnostic imaging study of 40-year-old men and women. *Spine*. 30(10).
- Manchikanti L, Fellows B, Ailinani H, Pampati V., (2010). Therapeutic Use, Abuse, and Nonmedical Use of Opioids: A Ten-year Perspective. *Pain Physician*. 13(5).
- Matsu, T., et al., (2005). Natural History of Patients with Lumbar Spine Disc Herniation Observed by MRI for a Minimum of Seven Years. *J Spinal Disord Tech*. 18(12).
- Milgrom C, et al., (2015). Rotator Cuff Changes in Asymptomatic Adults: The Affect of Age, Hand Dominance, and Gender. *J Bone Joint Surg Br*. 77(2).
- Moseley, G., (2002). Combined Physiotherapy and Education is Efficacious for Chronic Low Back Pain. *The Australian Journal of Physiotherapy*. 48(4).
- Moseley G., (2003). Unravelling the Barriers to Reconceptualization of the Problem in Chronic Pain: The Actual and Perceived Ability of Patients and Health Professionals to Understand the Neurophysiology. *The Journal of Pain*. 4(4).
- Moseley, G., Butler D., (2015). Fifteen Years of Explaining Pain: The Past, Present, and Future. *The Journal of Pain*.
- Muk, B., et al., (2004). Long Term Outcome of Meniscal Degeneration in the Knee: Poor Association between MRI and in Symptoms in 45 Patients Followed for More than Four Years. *Acta Orthop*

Scand. 75(1).

Nahin, R., (2015). Estimates of Pain Prevalence and Severity in Adults: United States, 2012. The Journal of Pain. 16(8).

Nkyekyer, E., Fulton-Kehoe, D., Spector, J., (2015). Opioid and Benzodiazepine Use Before Injury Among Workers in Washington State, 2012 to 2015.

Patrick, S., Fry, C., Jones, T., Buntin, M., (2016). Implementation Of Prescription Drug Monitoring Programs Associated With Reductions In Opioid-Related Death Rates. Health Aff (Millwood).

Paulozzi, L., (2012). Prescription Drug Overdoses: A Review. Safety Res. 43(4).

Perquin CW, Hazebroek-Kampschreur AA, Hunfeld JA, et al., (2000). Pain in children and adolescents: a Common Experience. Pain. 87(1).

Yukawa, Y., et al, (1996). Serial Magnetic Resonant Imaging Follow-up Study of Lumbar Disc Herniation Conservatively Treated for Average of Thirty Months: Relation between Reduction of Herniation and Degeneration of Disc. J Spinal Disord. 9(3).

***DAN Hendrick PT, CEAS III, ASTYM, BS**

Dan Hendrickson has been a physical therapist since 1992 and is a Level II and III Certified Ergonomic Assessment Specialist. He has been a presenter at the Tennessee Bureau of Workers' Compensation (BWC) Physician Education Conference and the Bureau's annual education conference. He is married to his college sweetheart of twenty-seven years and has two "fantastic adulting children," and one "cute rescue."

***Sandy Murphy, DPT**

Sandy Murphy is the Director of Star Physical Therapy's East Nashville Clinic. She is IDN, ASTYM, and Mackenzie Certified and has studied PNE through the International Spine and Pain Institute. She lives in East Nashville, where she enjoys doing anything outdoors with her dogs Beans and Frankie J.

Presumption of Accuracy

Not All Are Created Equal

*The Honorable Richard Murrell**



How is an MIR opinion different from the treating physician's impairment opinion if both are presumed to be legally accurate?

To begin, here is the disclaimer. Although I am an administrative judge, I do not hear workers' compensation cases. Further, this article is not an opinion regarding any current or future workers' compensation cases. Rather, I am sharing information that the legal system uses to direct the course of conflict resolution. This article is intended to help direct further study and deeper understanding of the concepts discussed. That being said, I do hope you find the article useful.

A chief goal of our legal system is conflict resolution. Parties find themselves in conflict when an issue has importance to the resolution of a dispute and the parties have differing views of how that issue is defined. In the context of this article, the issue is the impairment rating. That issue requires expert opinion. It is not uncommon for experts in this field to have differing opinions. Because of the importance of the impairment rating and the frequency that rating has historically been in dispute, the legislature undertook the task of providing guidance for conflict resolution.

The first level of the legislative response was to create a presumption of accuracy. The presumption as to impairment ratings may be found twice in Tennessee Code Ann. § 50-6-204, at (d)(5) and at (j)(7). The former is tied to the MIR physician and the latter to the treating physician. There are many legal presumptions in various areas which are not within the scope of this article. As relates to this discussion, one may look at the "presumption" as a starting point in the effort to resolve conflict over the impairment rating. In both passages, the legislature highlights the significance placed on the presumed accuracy and directs the level of evidence that would be required to overcome the presumption. The main difference between the two presumptions, though, is the standard of evidence that must be used to overcome them, with the clear and convincing standard of the MIR presumption being a much higher hurdle than the preponderance standard of the treating physician's opinion.

A presumption serves two purposes. The rating of the treating physician becomes the starting point under 204(j)(7) and it is elevated so that merely disagreeing with the rating would be insufficient to challenge the accuracy of the rating. In fact, a rating would have to be provided by expert opinion that carried enough weight that, when compared to the treating physician's rating, the trier of fact (here, the judge) would agree that the competing rating was *more likely than not correct*. Factors such as the physician's specialty, experience, opportunity to observe the patient and completeness of the evaluation may be part the information

considered by the judge. That heightened level of evidence describes the preponderance of the evidence standard.

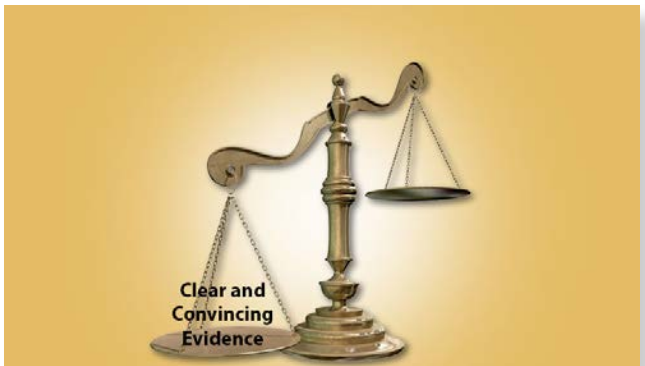
While that piece of legislation helps to resolve many potential conflicts, it is not uncommon that the parties would believe, for one reason or another, the rating most favorable to them would satisfy the preponderance of the evidence standard when presented to the judge. The legislative response to avoid the time and resource cost of continued conflict over the impairment rating was to create the Medical Impairment Rating Registry program. When invoked, a physician, independent from either party, is selected from a panel of professionals that have demonstrated additional training in the use of the approved *Guides* for impairment rating. The rating from the selected physician is, again, given a presumption of accuracy under 205(d)(5), which adjusts the starting point for dispute resolution. That starting point is also elevated but elevated to a much more significant degree. Simple disagreement with the rating is, of course, insufficient. Additionally, a rating that is sound, considers other facts and may appear to be likely correct still may not be sufficient to rebut the MIR rating. Additional evidence must be presented to the judge.

Note that the judge is not a physician but is charged with resolving a dispute that arises because of competing medical opinions. The various presumptions guide the path the judge must take in navigating through the evidence to reach a conclusion. The more predictable that path is, the fewer the circumstances that lead to dispute. The legislature intended to make the path more predictable by requiring a higher level of evidence to rebut the MIR physician's rating.

To rebut an MIR opinion, the party must provide "clear and convincing evidence," which means evidence in which there is no serious or substantial doubt about correctness of the conclusions drawn from the evidence. For a judge to determine that the MIR rating has been rebutted, the evidence must leave him or her very confident that the competing rating is correct and the MIR rating suffers some defect.

In the specific context of the statute at issue, the clear and convincing evidence standard has been interpreted to mean that if no evidence has been admitted which raises a serious and substantial doubt about the evaluation's correctness, the MIR evaluation is the accurate impairment rating.

In *Smith v Elec. Research & Mfg. Co-op., Inc.*, 2013 WL 683192, the trial judge found the evidence strong enough to rebut the statutory presumption of accuracy afforded the MIR physician's rating. The dispute centered around whether the injured worker suffered a sprain/strain lower-back injury to be rated under Table 17-4 on page 570 of the Sixth Edition of the *AMA Guides* or a more serious injury



that required utilizing the portion of Table 17-4 on page 571. The treating and evaluating physician each provided testimony by way of deposition while the MIR physician did not testify in person or by deposition. The judge found that the treating, evaluating and MIR physician all found persistent right lumbar pain, muscular pain and right-leg spasm. However, the treating and evaluating physicians also reported other findings, described as objective findings, such as positive straight leg raise test, atrophy of the right thigh and ongoing radiculopathy. There was testimony from the evaluating physician that the *AMA Guides* instructs



that the rating should be performed using the section yielding the highest rating if there are more than one sections that could be applicable.

What can be learned from this information is limited to the specific case as far as the outcome is concerned. It is possible that a deposition of the MIR physician would have provided evidence that would have lessened the impact of the evidence that was presented. The judge could only evaluate the evidence presented. The judge heard that there was consistency in some areas among all three physicians. The judge heard that, while the MIR physician found medical evidence of only a sprain/strain, the other two physicians found other elements that lead the evaluating physician to apply the *AMA Guides* in a manner consistent with the internal instructions that resulted in a higher rating. Because the trial judge followed the correct analytical path in considering the available evidence, his decision was not overturned on appeal.

The Tennessee Supreme Court mentioned the *Smith* case and others in *Mansell v Bridgestone Firestone North American Tire, LLC*. 417 S.W.3d 393 (2013). While a large portion of that decision deals with issues outside the scope of this article, there are examples that clarify the difference associated with clear and convincing evidence in the legal system. Here are some of those:

1. Proof, through testimony, that the MIR physician had incorrectly calculated the impairment rating either by making an error in arithmetic or by misreading the *AMA Guides*.
2. Proof that an MIR physician was not properly qualified for inclusion on the MIR registry, had been removed from the MIR registry subsequent to providing his or her report, or was not qualified to testify as an expert generally.

3. Testimony by the treating physician as to errors in the evaluation conducted by the MIR physician.

4. Proof that the MIR physician had used an incorrect method in reaching the impairment rating and the employer had failed to present any evidence to contradict the testimony of the independent medical examiner.

These examples, along with the preceding discussion, should advance an understanding of the way a judge would apply the two presumptions in a predictable manner. Since the standard for the level of evidence needed to overcome the presumptions is set out in the statute, parties are less likely to maintain disputes. The presumptions of accuracy will not eliminate litigation over impairment ratings. They do support the goals of faster resolution and avoidance of unnecessary litigation cost.

***Richard M. Murrell, CALJ.**

In 2005, Judge Murrell joined the Division of Workers' Compensation (now the Bureau of Workers' Compensation) where he served in several capacities including Director of Quality Assurance. He was first appointed as an Administrative Judge for workers' compensation civil penalty reviews in 2006. As a member of the National Association of Hearing Officials, Judge Murrell earned the designation of Certified Administrative Law Judge in 2013. Judge Murrell was appointed as an Administrative Judge with the Office of the Secretary of State Administrative Procedures Division in 2018. Judge Murrell has attended class at the National Judicial College in Administrative Fair Hearings. He is a former President and Board of Directors Member of the Tennessee Association of Professional Mediators, a former Board Member of the Tennessee Alliance for Legal Services and a former Board Member of the Columbia Mediation Center. He serves on the NAHO Board of Directors and its Certification Committee and is a member of the NAHO faculty for its Annual Professional Development Conference, where he presents on various topics to administrative law judges and hearing officers from across the country.

Chronic Pain Management

There Are Alternatives to Opioids

Jeffrey E. Hazlewood, MD*



Those of us who are board-certified pain specialists and treat workers' compensation injuries are becoming disillusioned with opioid treatment for several reasons: the increasingly aggressive laws and regulations (state and federal); the significant requirements of the "pain clinic" laws; the recommendation to use evidence-based medicine guidelines (Official Disability Guidelines in Tennessee); utilization review denials for previously-accepted treatment regimens; the fear of liability given these requirements; and managing our patients' anger. Sometimes, we ask, "Why did I go into this field of medicine?" Three years ago, I questioned whether I should run a landscape business and get out of this field.

I questioned the utility of writing prescriptions for chronic pain when patients still felt miserable and experienced a diminished quality of life on these drugs. I noted that patients' pain levels were 8/10 even on high-dose opioids. They were overweight, smoking, not exercising, and sometimes bedridden, basically non-functional. So, was I really helping patients, which is why I went into medicine in the first place? It became harder and harder to find motivation to work day after day. Some patients were so depressed I worried they would hurt themselves, whereas others battled their pain with anger, especially when being weaned from opioids. Was it worth it anymore?

Then I decided on a different approach: a "mission" of strong education, counseling, coaching, listening, and pleading to patients that opioids often are dangerous, especially in combination with muscle relaxers, nerve pain medications, sleeping pills, anti-depressants, and alcohol. This decision, it turns out, is supported by more and more medical evidence indicating the lack of long-term effectiveness of opioids, not to mention the increased risks. I stopped writing the same prescriptions and instead started assessing the "benefits vs risks" every visit and had difficult discussions with patients, trying to inspire them, figuratively speaking, to swim and not just dog-paddle. At most, I was maybe saving some

lives. And at least, I was improving patients' overall health and helping them live longer, more fruitful lives.

About this time, with new laws concerning opioids in Tennessee, physicians decreased—or often just abruptly stopped—opioid prescriptions, creating a crisis of a different kind. An impassioned opinion article in *The Tennessean* (July 25, 2018) highlighted the need for public awareness and education about opioid alternatives. A desperate, impassioned, and angry widow described

The Opioid Crisis: How physicians are responding



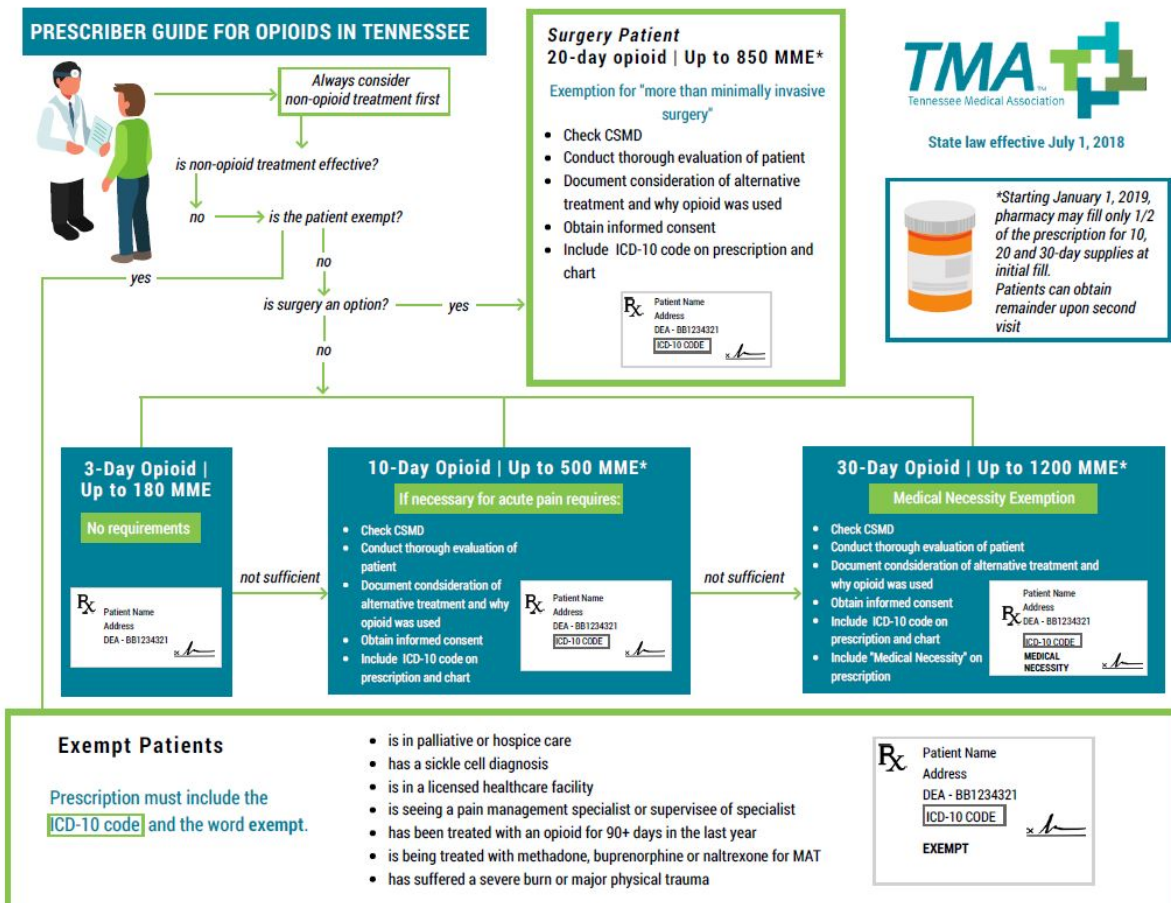
2018 Survey of America's Physicians

how her husband was abruptly weaned from opioids without other alternatives when his pain clinic closed. He committed suicide, and she wrote a beautiful, heart-wrenching article about the unjustness. She wrote, "What are the other options for these 45,000 patients without pain medication?" This implied there were no other options, which inspired me to respond that there are available options, and it is up to us as physicians to educate our patients about these alternatives and help them through this crisis.

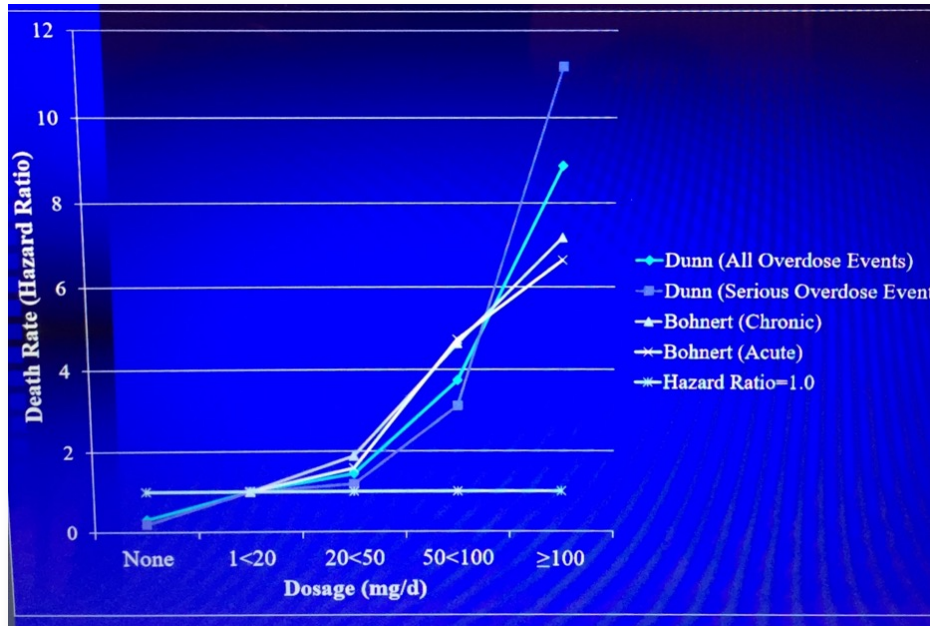
The keys, though, are insurance coverage for these alternatives, educating physicians about them, and committing to the arduous process of weaning patients off opioids. Thank goodness workers' compensation insurance does cover so many alternatives (unlike private insurance). So, we are very lucky that we do have alternative treatments that are covered and are available (and supported by evidence-based medicine). Now, we must educate the physicians about these alternatives and we, as physicians, have to be willing to go through the very difficult process step-by-step, trying these alternatives. It is not easy, but the end result and final outcome so many times makes it worth the work.

My proposal of such a process is as follows:

A. **Obtain a thorough history** and perform a thorough musculoskeletal and neurologic examination to define a differential diagnosis of the true pain generator. We must consider and remember the false-positive imaging study



findings, and use the patient's history, the physical examination, and our knowledge of anatomy, physiology, and pathology of disease processes to correlate all of these factors to determine the pain's cause before we attempt to treat that pain. We must remember the importance of psychological and psychosocial factors in the history, including anger, frustration, and depression, before assuming that "the annular tear or arthritic face joint or bulging disk" really is the problem, despite multiple published studies showing these are aging changes unrelated to the the patient's pain. EMR certainly has made this process less likely. That is why I still dictate.



B. **Educate and Counsel** the patient of the steps to treat the pain, especially when other previous treatments have failed miserably. It's essential to first gain the patient's trust, which is not always easy in workers' compensation. Then begin the education process of why opioids are not always the answer. Explain the lack of improvement in quality of life and function based on the history. Being able to dress and bathe is not enough justification for 200 mg MEDD/day. I venture to say, the patient would do these activities without the morphine.

Explain the science and data behind the guidelines. Show the mortality-dose rate curve to the patient. **Explain** all the concepts of addiction, tolerance, and opioid hyperalgesia (it's possible the pain will improve off the opioids). Explain the longer one is on opioids, there is still a chance of addiction, years later, and the studies show more and more potential problems down the road.

Educate about the dangers of mixing all these drugs (with muscle relaxers, nerve pain medicines, sleeping pills, benzodiazepines—and the FDA Blackbox warning).

Don't forget to **celebrate** success stories and brag on these patients when they are successful in coming off the drugs. In my office, we ring a cowbell. It sounds hokey,

but the patients love it when they are congratulated and celebrated for their hard work.

C. **Begin the slow process of weaning** the opioid, not going too fast in these legacy cases. First, wean off the muscle relaxers and sleeping pills, and stop the alcohol.

D. At the same time, **use other techniques** for pain control such as interventional injections (within reason). These are best used sparingly in chronic pain, per evidence-based medicine guidelines when supported by the history and physical examination and used to facilitate progress in a physical therapy program. A hands-on, manual physical therapy approach emphasizing an exercise program rather than just passive treatment is essential, with emphasis on aerobic exercising as well.

E. Then, initiate other **ALTERNATIVE TREATMENTS**:

1. **Cognitive Behavioral Therapy**: Pay closer attention to the individual rather than the diagnosis. Work on decreasing the pain-catastrophizing and fear-avoidance behaviors. Stress internal focus rather than external focus, e.g. exercise, smoking and alcohol cessation, and weight loss rather than pills, injections, and stimulators. Such a program is recommended by ODG, usually about 12 visits.

2. **Acupuncture**: It is ODG recommended for four visits or up to twelve visits if it reduces pain and functional progress is made.

3. **Chiropractic Manipulation**: It is ODG recommended for a six-visit trial; if



successful, then it is recommended for up to eighteen to twenty-four visits and one to two visits every four to six months for flare-ups.

4. **Massage Therapy**: It is actually recommended by ODG for 1-2 times per week for 6-12 visits but only if combined with an active home exercise program.

5. **Yoga/Tai Chi:** It actually is recommended by ODG for nine to ten visits but requires a motivated patient.

6. **Sleep Hygiene:** Avoid sleeping pills, benzodiazepines and stress common-sense techniques. Melatonin can often help. Cognitive Behavioral Therapy can help.

7. **Herbal Medications/Diet:** It is recommended by ODG; low carbohydrate and gluten-free diets are often efficacious for chronic pain.



<https://youtu.be/rU2oeBx2Msc>

8. **H-wave units:** They are ODG *recommended*; they are NOT the same as TENS units. They employ a distinctively unique electrical current that helps pain but also lead to physiologic tissue changes. They can provide hours of relief when used one to two hours per day and have a money-back guarantee if not successful after a thirty-day trial. I have seen dramatic successes in using these to wean patients off opioids successfully.

So, in summary, there are alternative treatments to opioids when the risks outweigh the benefits. Workers' compensation insurance and evidence-based medicine guidelines support many alternative treatments, and they truly do work many times. However, the patient must be motivated to work with the doctor in this difficult process, and the doctor must be given appropriate time to make these changes gradually in these "legacy," chronic-pain cases.

To answer the grieving widow of the chronic-pain patient who committed suicide when he no longer had his pain medication: Yes, there are other options to treat the burden of chronic pain.

And don't forget: "Working hard for something we don't care about is called stress. Working hard for something we love is called passion." We, as pain specialists

treating chronic-pain patients must have a passion for what we do, or we could no longer do it. And, certainly we could not do it the “right way.”

Additional Resources:

Federal Department of Health and Human Services (HHS)

[Guide for Clinicians on the Appropriate Dosage Reduction or Discontinuation of Long-Term Opioid Analgesics](#)

Center for Disease Control (CDC)

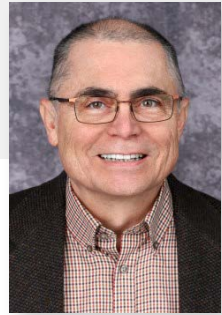
[Pocket Guide to Tapering Opioids for Chronic Pain](#)

*Jeffrey E. Hazlewood, M.D.

Dr. Jeff Hazlewood practices Physical Medicine and Rehabilitation/Pain Management in both Lebanon and Murfreesboro, and he is an Associate Staff Member at Tennova Healthcare Hospital in Lebanon. After receiving his medical degree from the University of Tennessee, Memphis, he completed his residency at the University of Alabama, Birmingham, where he was chief resident. A Fellow of the American Academy of Physical Medicine and Rehabilitation, Dr. Hazlewood is Board Certified in Physical Medicine and Rehabilitation with a subspecialty Board Certification in Pain Medicine. He is a member of the Medical Impairment Rating Registry and has received training on the fifth and sixth Editions of the *AMA Guides to the Evaluation of Permanent Impairment*. He also teaches 6th Edition Impairment Rating courses to doctors and attorneys. His society memberships include the American Academy of Physical Medicine and Rehabilitation, the American Association of Neuromuscular and Electrodiagnostic Medicine, the Tennessee Medical Association, The Tennessee Pain Society, the American Medical Association, and the Rotary Club. He is an experienced speaker on various aspects of pain management and topics in Workers' Compensation. Dr. Hazlewood also previously served as an assistant medical director for the Tennessee Division of Workers' Compensation.

The Medical Benefits of Work And the Health Costs of Unemployment

James B. Talmage, MD



In 2011, the American Medical Association published its Second Edition of the *AMA Guides to the Evaluation of Work Ability and Return to Work*. The first chapter, entitled *Why Staying at Work or Returning to Work Is in the Patient's Best Interest*, begins with several notable quotations.

"No other technique for the conduct of life attaches the individual so firmly to reality as laying emphasis on work; for his work at least gives him a secure place in a portion of reality, in the human community."

Sigmund Freud

"An unemployed existence is a worse negation of life than death itself. Because to live means to have something definite to do—a mission to fulfill — and in the measure in which we avoid setting our life to something, we make it empty. ... Human life, by its very nature, has to be dedicated to something."

Josè Ortega y Gasset

"Without work all life goes rotten."

Albert Camus

"Work is not man's punishment. It is his reward and his strength and his pleasure."

George Sand

These assertions illustrate that, for many people, work helps define purpose in life. A sense of purpose is essential to good health (Ryff, 2017). The AMA text then reviews consensus statements that work, in general, is good for a person's health and well being. These statements were issued by the Canadian Medical Association (2000), the American Medical Association (2004), American Academy of Orthopaedic Surgeons (2004), American College of Occupational and Environmental Medicine (2011), the United Kingdom Department of Work and Pensions (2011), the agency roughly equivalent to the United States Social Security Administration. A Swedish review on the problem of work disability certification had been published in the *Scandinavian Journal of Public Health* in 2004, with similar conclusions. Since the AMA publication on this subject there has been an additional consensus statement by the Australian Royal College of Physicians on the negative health consequences of becoming unemployed, and the health benefits of returning to work (Australasian, 2015). The evidence is compelling. For most individuals, working improves general health and wellbeing and reduces psychological distress. Even health problems that are frequently attributed to work—for example, musculoskeletal and mental health conditions—have been shown to benefit from activity-based rehabilitation and an early return to suitable work.

Research shows that long-term work absence, work disability, and unemployment are harmful to physical and mental health and wellbeing. Moreover, the negative impacts of remaining away from work do not only affect the absent worker. Families, including the children of parents out of work, suffer adverse effects, including poorer physical and mental health, decreased educational opportunities and reduced long-term employment prospects. In the Waddell and Burton review, the problem is not merely one of association. On the balance of the evidence, they concluded that unemployment causes, contributes to, or accentuates the following negative health impacts: increased rates of overall mortality, increased mortality from cardiovascular disease and suicide; poorer general health; poorer physical health, including increased rates of lung cancer; increased susceptibility to respiratory infections; poorer mental health and psychological well-being; more frequent somatic complaints; increased long-standing illnesses; increased disability; and higher rates of medical consultation, medication consumption, and hospital admission.

Of all the potential consequences of unemployment in mid-adult life the worst outcome is premature death. Roelfs et al. published in 2011 the systematic review of 42 studies and concluded that becoming unemployed (even after adjustment for diseases that may explain disability related unemployment) was associated with a 40-60% increase in the subsequent mortality rate. Unlike in medical treatment studies, in causation research people cannot be randomly assigned into a group that will be forced to remain at work or unemployed. In causation research, the

Table 3
Meta-analyses.^a

Data	Unadjusted	Adjusted for age only	Adjusted for age and additional covariates ^b
All available data	2.08 (1.77, 2.43)	1.59 (1.42, 1.77)	1.63 (1.49, 1.79)
Non-estimated death rate only	2.04 (1.73, 2.40)	1.48 (1.30, 1.68)	1.66 (1.48, 1.86)
Non-estimated standard error only	2.08 (1.77, 2.43)	1.67 (1.48, 1.89)	1.69 (1.54, 1.85)
Sex			
Women only	1.62 (1.25, 2.09)	1.31* (1.10, 1.56)	1.37 (1.17, 1.60)
Men only	2.38 (1.85, 3.08)	1.79 (1.56, 2.05)	1.78 (1.56, 2.02)
Average age (y)			
<40	1.84 (1.37, 2.48)	1.66 (1.39, 1.97)	1.73 (1.41, 2.11)
40–49.9	2.25 (1.87, 2.71)	1.77 (1.51, 2.08)	1.77 (1.59, 1.98)
50–65	1.64*** (0.97, 2.76)	1.33** (1.02, 1.74)	1.25** (1.03, 1.52)
Mean follow-up duration (y)			
≤5	1.70* (1.15, 2.52)	1.50 (1.26, 1.80)	1.73 (1.44, 2.06)
5.1–10	2.65 (2.15, 3.25)	1.83 (1.55, 2.15)	1.76 (1.55, 2.00)
>10	1.58 (1.22, 2.04)	1.37* (1.12, 1.67)	1.42 (1.22, 1.64)
Comparison group			
Employed	2.09 (1.79, 2.45)	1.75 (1.54, 1.98)	1.63 (1.50, 1.78)
General population	–	1.24** (1.01, 1.51)	–
Unemployment measure			
Unemployed only	1.75 (1.48, 2.08)	1.58 (1.41, 1.77)	1.60 (1.45, 1.76)
Unemployed or not in labor force	3.76 (2.75, 5.14)	1.62 (1.25, 2.10)	1.73 (1.46, 2.04)

* $p \leq 0.01$.

** $p \leq 0.05$.

*** $p > 0.05$.

^a All meta-analyses were calculated by maximum likelihood using a random effects model. See Table 4 for information on sample sizes for each analysis. Values are presented as mean hazard ratio (95% confidence interval). Unless indicated otherwise $p \leq 0.001$. Ellipses indicate situations where $n \leq 1$ and meaningful mean HR could not be calculated.

^b The number and type of covariates varies between studies.

best evidence, and the evidence that is considered to be hypothesis testing, is from prospective cohort studies. A systematic review of just the twenty-three published high-quality prospective cohort studies concluded that “[s]trong evidence was found for a protective effect of employment on depression and general mental health” (Van der Noordt et al., 2014).

A systematic review in 2018 found evidence that return to work with mental disorders can be positively affected by employment related interventions (Mikkelsen & Rosholm, 2018).

We now have published studies that show that persisting unemployment is deleterious to health (Herber et al., 2019), and that re-employment is beneficial to multiple health outcomes (Carlier et al., 2013), which leads us into a discussion as to why ignorance of such matters has real consequences for injured workers, their physicians, and their employers.

References

- Australasian Faculty of Occupational & Environmental Medicine. [2015, November]. Royal Australasian College of Physicians. Retrieved from <https://www.racp.edu.au/advocacy/division-faculty-and-chapter-priorities/faculty-of-occupational-environmental-medicine/health-benefits-of-good-work> .
- Canadian Medical Association (2000). CMA Policy: The Physician’s Role in Helping Patients Return to Work after an Illness or Injury. Retrieved from www.cma.ca/multimedia/staticContent/HTML/N0/I2/where_we_stand/return_to_work.pdf .
- Carlier, B., Schuring, M., Lötters, F., et. al. (2013). The Influence of Re-employment on Quality of Life and Self-rated Health, a Longitudinal study among unemployed persons in the Netherlands. *BMC Public Health*. 13(503). Retrieved from <http://www.biomedcentral.com/1471-2458/13/503>
- Herber, G., Ruijsbroek, A., Koopmanschap M., et al. (2019). Single Transitions and Persistence of Unemployment are Associated with Poor Health Outcomes. *BMC Public Health*. 19(740). Retrieved from <https://doi.org/10.1186/s12889-019-7059-8> .
- Mikkelsen, M., Rosholm, M. (2018). Systematic Review and Meta-Analysis of Interventions Aimed at Enhancing Return to Work for Sick-listed Workers with Common Mental Disorders, Stress-related Disorders, Somatoform Disorders and Personality Disorders. *Occup Environ Med*. 75 (9). doi:10.1136/oemed-2018-105073 .
- Peter, L., (1977). *Peter’s Quotations: Ideas for Our Time*. New York, NY: Bantam Books.
- Ryff, C. (2017). The Benefits of Purposeful Life Engagement on Later-Life Physical Function. *JAMA Psychiatry*. 74 (10).
- Talmage, J., Melhorn, J., Hyman, M., (2011). *AMA Guides to the Evaluation of Work Ability and Return to Work*, Second Edition. American Medical Association, Chicago.
- Van der Noordt, M., IJzelenberg, H., Droomers, M., et al. (2014). Health Effects of Employment: a Systematic Review of Prospective Studies. *Occup Environ Med*. 71(73). Retrieved from <http://dx.doi.org/10.1136/oemed-2013-101891>).
- Finest Quotes. [n.d.]. Retrieved from http://www.finestquotes.com/select_quote-category-Work-page-1.htm.

Return to Work Awareness

Why Ignorance is Not Bliss

Brian Holmes, MA



I was once a college sophomore attending Economics 101. After covering the basics of supply and demand, we discussed utility, or happiness that drives human behavior via maximizing our “utils.” This was the start to my passion for labor economics. It eventually led me to a master’s degree in the field and a career with the Bureau of Workers’ Compensation.

According to the theory, all human decisions are made by what makes us happiest. Many of the students in the class argued against this, based upon the fact that they were in that class at that very moment instead of hunting, spending time with friends, or simply doing anything else. The class discussion led us to the conclusion that sometimes we make decisions because we want a future that is better than our present.

The benefits of returning to work after an injury have been preached to the workers’ compensation community for many years. Dr. James Talmage, in this publication’s current issue has just provided an in-depth analysis of the health benefits to working.

The financial benefits of working are also evident in the numbers. Tennesseans received more than \$102 million dollars in social security disability insurance benefits in December 2018 (SSA, 2019). The 176,395 disabled Tennesseans received on average \$578.25 per month. This is less than half of the \$1,247 paid to someone working full-time at minimum wage.

Employers have many incentives to bring injured employees back to work, especially in workers’ compensation. Claim costs are reduced through shorter durations of temporary disability, reduced permanent disability awards, and lower medical expenses. These are achieved through employer and employee engagement.

This engagement has led to much success for companies like Vanderbilt University Medical Center, Mars, and Averitt Express (Ray, Kelly, & Horn, 2019). These companies have achieved morale boosts after workers became confident that they would receive appropriate medical care and could expect to be retained after suffering a work injury. Improved morale leads to improved production and reduced turnover.

Good business practices encourage employee retention. The U.S. workforce is becoming increasingly mobile. In 2016, twelve percent of the U.S. workforce left jobs voluntarily. Turnover’s total cost to business in the United States is over \$536 billion a year (Craig).

Millennials are moving at greater speeds than everyone else. Twenty-one percent report they have changed jobs in the past year, while sixty percent report they are open to new opportunities (Adkins). Millennials are now the largest generation in the workforce (Fry, 2018).

Replacing workers who leave can be difficult. The National Association of Manufacturers is warning that 2.4 million manufacturing jobs [nationally] could go unfilled between 2018 and 2028 (Frazee, 2018). This shortage of labor is a threat to manufacturing in Tennessee.

So this begs the question: If the research and the numbers explain the value of returning to work; how are injured workers and many employers maximizing their “utils” by choosing the no-work option?

The simple answer is their perception of today and what their future holds is skewed by the lack of appropriate information. The misunderstanding of the present results in settling for a bleak tomorrow.



Physicians are aware of the biggest misperceptions of pain limitations. The gap between limitations that create physical risk and tolerance is a familiar workers’ compensation topic. Pain neuroscience medicine is a common discussion at seminars.

Employers’ ignorance is not a common topic. Many work injuries occur at workplaces with few employees and infrequent workers’ compensation claims. Small employers, who may consider employees “family,” don’t know that return-to-work plans benefit both parties.

These same employers sometimes fail to provide appropriate light duty jobs. They may ask employees to do menial tasks or have them perform work that exposes them to increased opportunities for injuries. This is easy to do when relying on work restrictions that are based upon inappropriate job descriptions.

Job descriptions describe what a person does in the job. A job demand analysis reports the physical activity with accurate weight and frequency. This provides physicians better guidance with the real nature of the job, rather than relying upon estimations from an injured worker. Unfortunately, most employers don’t understand the value of a job-demand analysis.

Failure of employers to find appropriate work can lead many injured workers to believe that with their temporary or permanent restrictions, no employment opportunities are available. This narrative is false. Nashville alone has over 40,000 businesses. In Tennessee, the job4tn.gov website has consistently advertised over 150,000 job vacancies in 2019.



New jobs are added to the economy every month. The United States has added 191,000 new jobs, on average, since January 2018 (Analysts, 2019). That is 4.2 million new jobs. With unemployment rates below 4%, many employers need workers.

In 2018, 5.7 million disabled persons were employed, of whom 3.2 million have some college or a college degree (BLS, 2019). The U.S. Department of Labor’s Office of Disability Employment Policy offers many federal programs aimed at getting disabled persons to work.

In 2018, disabled persons with some college or a college degree were more than twice as likely to be employed as those with a high school diploma or less (BLS, 2019). A variety of state and federal programs, in addition to the Next Step Program, provide financial assistance to attend school. These programs are relatively short and inexpensive. Many programs can be attended while the injured worker is recovering. The below table is a listing of such programs.

Tennessee College of Applied Technology - Nashville

Program	Length	Day /Night	Costs
Computer Information Tech	20 months	Both	\$10,906
Dental Assisting	12 months	Day	\$6,090
Computer Aided Design Tech	16 months	Day	\$6,050
Practical Nursing	12 Months	Day	\$9,436
Administrative Office Tech	12 months	Day	\$4,242
HVAC & Refrigeration Tech	16 months	Both	\$7,700

Many applicants to the Bureau’s Next Step Program struggle with prioritizing their return-to-work. Issues with their workers’ compensation claim, children or grandchildren, and legal issues are often their main focus. The narrative must be changed to include actions to live a “best life” over maximizing the benefits received from a workers’ compensation claim.

Appropriate education and understanding the possibilities is are key to more injured workers maximizing their “utils” with a successful return to work. Please refer your patients to the Next Step Program for more information about how they can return to work. 800-332-2667.

References

- Adkins, A. [n.d.]. "Millennials: The Job-Hopping Generation" Business Journal. Retrieved from <https://www.gallup.com/workplace/231587/millennials-job-hopping-generation.aspx> .
- Analysts of the National Estimates Branch. [2019, December 6]. Current Employment Statistics Highlights. U.S. Bureau of Labor Statistics. Retrieved from <https://www.bls.gov/web/empsit/ceshighlights.pdf> .
- Bureau of Labor Statistics. [2019, February 26]. Persons with a Disability: Labor Force Characteristics – 2018. U.S. Department of Labor. Retrieved from <https://www.bls.gov/news.release/pdf/disabl.pdf> .
- Catalyst. [2018, May 23]. Turnover and Retention: Quick Take. Retrieved from <https://www.catalyst.org/research/turnover-and-retention> .
- Craig, W. [n.d.]. How Positive Employee Morale Benefits Your Business. Forbes. Retrieved from <https://www.forbes.com/sites/williamcraig/2017/08/29/how-positive-employee-morale-benefits-your-business/#7ebae8e42549> .
- Fraze, G. [2018, November 16]. Manufacturers say their worker shortage is getting worse. Here's why. Retrieved from <https://www.pbs.org/newshour/economy/making-sense/manufacturers-say-their-job-shortage-is-getting-worse-heres-why> .
- Fry, R. [2018, April 11]. Millennials are the Largest Generation in the U.S. Labor Force. Pew Research Center. Retrieved from <https://www.pewresearch.org/fact-tank/2018/04/11/millennials-largest-generation-us-labor-force/> .
- Northon, L. [2016, November]. 2016 Human Capital Benchmarking Report. Retrieved from <https://www.shrm.org/hr-today/trends-and-forecasting/research-and-surveys/Documents/2016-Human-Capital-Report.pdf> .
- Ray, N., Kelly, N., Horn, T. (2019). Personal reports from roundtable discussion about return-to-work programs with representatives from these companies.
- Social Security Administration. [2019, October]. SSI Recipients by State and County, 2018. U.S. Department of Labor. Retrieved from https://www.ssa.gov/policy/docs/statcomps/ssi_sc/ .

*Brian Holmes, MA

Brian Homes is the Director of Mediation Services and Ombudsman Services for the Tennessee Bureau of Workers' Compensation. In this role, he directs policy and leads twenty-three mediators and six ombudsmen as they educate the public about workers' compensation and help resolve benefit disputes. He has had the privilege of helping thousands of injured workers, their employers, and insurance companies make informed decisions. A fifteen year veteran of the Bureau, he has, of recent, created and implemented the Next Step Program, which assists unemployed workers' compensation claimants return to the workforce.

Pain-Management Opinions

Recent Case Law

Jane Salem, Esquire*



Several recent Tennessee workers' compensation cases involving pain management are of interest to legal and medical practitioners.

Disagreement isn't a basis for a new panel.

A Supreme Court Special Workers' Compensation Panel addressed when a new panel of pain management providers might be required in *Smith v. Goodall Buildings*, No. 2017-01935-SC-R3-WC, 2018 Tenn. LEXIS 518 (Sept. 14, 2018).

C.K. Smith received pain management under an award of lifetime medical benefits. He saw Dr. Jeffrey Hazlewood, who gradually increased his dosage of opioids but later expressed a desire to wean Smith off them entirely or at least decrease his dosage. A Utilization Review Board agreed that the 150-milligram daily dosage was too high. Smith's prescription went from 150 milligrams of morphine daily to 112.5. When Dr. Hazlewood wanted to cut the dosage further, Smith informed him he was treating with another physician, and the doctor-patient relationship ended.

Smith filed a motion seeking a new panel. Trousdale County Judge Clara Byrd granted the motion, and Goodall Buildings appealed.

Tennessee Code Annotated section 50-6-204(j)(3) states that an injured worker is not entitled to a second opinion on prescribed treatment for pain management. The Panel held that by its plain language, this provision doesn't allow a new panel under Smith's circumstances.

"[W]e can hardly imagine a more fitting case to give effect to the text of section 50-6-204(j) than this one," wrote Justice Jeffrey Bivins for the Panel. He continued, "Two purposes of section 50-6-204(j), as stated by the sponsor himself, are to prevent the overutilization of Schedule II, III, and IV drugs and to curb or prevent addictions. ... The Legislature also was attempting to prevent 'doctor shopping[.]'"

Get the agreement in writing.

Another recent case involving a dispute between a worker and his pain-management physician is *Christmas v. Morristown Logistics*, 2016 TN Wrk. App. Bd. LEXIS 56 (Oct. 3, 2018).

After approval of his settlement, David Christmas began treating with Dr. Miguel Castrejon for pain management. The doctor noticed elevated alcohol levels in Christmas's drug screens. Dr. Castrejon discussed his concerns over these levels with him and later wrote in a discharge letter that Christmas violated a pain-management agreement. But the doctor ultimately conceded they never entered into a written agreement. Morristown Logistics denied the worker's request for a new panel, citing a verbal agreement and noncompliance.

Christmas filed a petition for benefit determination seeking a new panel of pain management specialists. Judge Brian Addington, Gray, granted his request based on the absence of a written pain-management agreement.

The Appeals Board affirmed. At issue was section 50-6-204(j)(4)(A), which provides that, as a condition of receiving pain management, an employee “may sign a formal written agreement with the physician . . . acknowledging the conditions” of receiving controlled substances. Subsection 50-6-204(j)(4)(B)(i) allows for termination of treatment if the employee violates the agreement more than once.

Judge David Hensley wrote, “In the present case, there was no ‘formal written agreement’ signed by Employee. Consequently, section 50-6-204(j)(4)(B) does not provide a means to terminate Employee’s right to pain management based upon alcohol being detected in two urine drug screens.”

Is it a “consult” or a “referral”?

Precision in language mattered in another case involving pain management.

In *Tapley v. Transport National*, 2017 TN Wrk. Comp. App. Bd. LEXIS 64 (Oct. 19, 2017), Dr. Martin Fiala, an authorized treating physician, recommended that employee Shane Tapley see Dr. Hazlewood to assess whether he was suffering from complex regional pain syndrome. The doctor also wrote, “FU 1 mo or as soon as approved and consult with Hazlewood [sic] complete.”

Tapley asked for a pain-management panel. Judge Robert Durham, Cookeville, denied the request, finding that the authorized provider didn’t make a referral for pain management and didn’t intend to transfer care. Transport National appealed, arguing that the Court should’ve found a direct referral to Dr. Hazlewood.



The Board affirmed. “Although he sought Dr. Hazlewood’s opinion as to whether Employee suffered from CRPS, he conditioned his request for assistance in the treatment of Employee’s case on Dr. Hazlewood’s agreement with that potential diagnosis,” Judge Tim Conner wrote. “This interpretation is further supported by Dr. Fiala’s request that Employee return to his office the following month or as soon as a ‘consult with Hazelwood [sic] [is] complete,’ indicating he did not intend, as of that date, to end active treatment or transfer Employee’s care to another physician.”

Honor a referral or get a contrary medical opinion.

The last noteworthy case is *Thompson v. Comcast Corp.*, 2018 TN Wrk. Comp. App. Bd. 1 (Jan. 30, 2018).

Dr. James Johnson, an authorized treating physician, referred David Thompson for pain management. Comcast denied the treatment, arguing that his current complaints weren’t work related. In a deposition, Dr. Johnson testified that

Thompson's condition was work-related and that pain management was reasonable and necessary. Comcast maintained its denial, arguing the medical proof was equivocal.

After an expedited hearing, Judge Thomas Wyatt, Chattanooga, ordered Comcast to authorize treatment with the pain-management specialist of the employee's choosing. Judge Wyatt also ordered payment of Thompson's attorneys' fees.

On appeal, Judge Conner wrote that the Board had "no difficulty" concluding that the trial court's decision was supported by a preponderance of the evidence. The Board rejected Comcast's contention that Dr. Johnson demonstrated "treater's bias" and cited the statutory presumption that an authorized physician's treatment recommendations are presumed correct. The Board also reasoned that Comcast didn't introduce a contrary medical opinion to rebut the presumption. However, the Board held that the trial court erred by not ordering Comcast to provide a panel.

The Board also affirmed the fee award. Judge Conner wrote, "[t]his case exemplifies one of the extremely limited set of circumstances where an award of reasonable attorneys' fees and costs is appropriate at an interlocutory stage of the case. Regardless of the ultimate resolution of the case, Employee's entitlement to a panel of pain management specialists as recommended by the authorized treating physician, and Employer's five-month refusal to offer such a panel, will not change. Moreover, the work Employee's attorney undertook to secure that panel will not change."

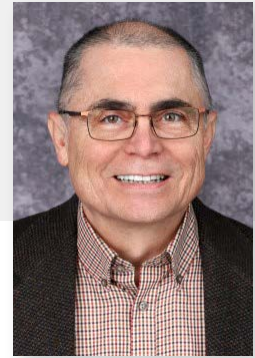
Judge Hensley dissented only in the ruling on attorneys' fees, questioning whether the trial courts have authority to make these awards at the expedited-hearing stage.

***Jane Salem, Esquire**

Jane Salem is a staff attorney with the Court of Workers' Compensation Claims in Nashville. She administers the Court's blog and is a former legal reporter and editor. She has run more than forty marathons.

Commentary on Medical Abstracts of Interest Regarding Opioids

James B. Talmage, MD



Selected medical literature abstracts of interest for this Fall issue are on the subject of opioids, chosen with a connection to workers' compensation and/or Tennessee, whenever possible.

Abstracts 1 and 2 (Durand) are from matching patients in the Tennessee Workers' Compensation database to the Tennessee Controlled Substance Monitoring Database. Sadly, 20.4% of those with a workers' comp claim were ALREADY on prescription opioids at the time the injury was sustained, suggesting that opioids predispose the person to subsequent injury, or they serve as a marker for people with other (possibly genetic) predisposition(s) to injury. Abstract #2 points out that even though injuries heal, and thus pain is expected to improve over time, over the first six months after injury the use of opioids as treatment paradoxically increased in Tennessee workers' comp patients.

Abstract 3 (Nkyekyer 2015) indicates that, compared to Tennessee, fewer workers in Washington state were already on opioids at the time of injury. Washington has had opioid guidelines in place for workers' compensation patients since 2013.

Abstract 4 (Phillips 2019) indicates that workers' compensation treatment guidelines on opioid prescribing can result in decreased opioid use and decreased opioid-related fatalities [19% decrease in fatalities].

Abstract 5 (Ladha 2019) indicates physicians in America prescribe opioids at a far greater rate than doctors in other countries. The 2018 Annual Report of the WHO's International Narcotics Control Board indicates that the U.S., with 4% of the world's population, consumes 47% of the world's legally produced morphine and 22% of the world's legally produced fentanyl, confirming that physicians in other countries don't prescribe opioids like we in this country do.

https://www.incb.org/documents/Narcotic-Drugs/Technical-Publications/2018/INCB-Narcotics_Drugs_Technical_Publication_2018.pdf

Abstract 6 (Sun 2017) is one of many now published studies showing that patients taking both chronic opioids and chronic benzodiazepines are at significantly increased risk of opioid overdoses, and this practice should be avoided if possible.

Abstract 7 (Klimas] Indicates that questionnaires that attempt to assess the risk of developing an opioid use disorder have such low published predictive value that they are not useful.

Abstract 8 (Deyo 2015) indicates opioids have not been shown to improve the average chronic back patient's function or pain.

Abstract 9 (Krebs) confirms that chronic back pain, hip pain, and knee pain patients do not have better pain relief or function if treated with opioids compared with non-steroidal anti-inflammatories, with both classes of drug titrated to maximum pain relief with tolerable side effects.

Abstract 10 (Hills 2019) indicates that pre-operative opioid use predicts poor spine surgery outcomes in 2,128 cases operated at Vanderbilt in Nashville. Use of opioids as a “bridge” to “carry” the patient until that person is “bad enough” to consent to surgery is thus predisposing the patient to a sub-optimal result, and this practice is clearly suspect.

Abstract 11 (Basilico 2019) states that the total daily dose of opioid (in morphine equivalents) is the predictor of post-operative use.

Abstract 12 (Jain 2019) is especially sobering. This indicates that a review of 58,082 cases shows that if a patient who has had a spine fusion, a hip replacement, or a knee replacement remains on opioids, that patient is much more likely to have a second surgery, despite published data that the rate of failure to fuse (pseudarthrosis), the rates of deep infection about the metal and plastic joint, the rates of non-infectious loosening of the replaced joint, and the rates of component malposition are not different in those using opioids post-operatively versus not using opioids. The unstated issue is the lumbar fusion patient with persisting pain is frequently misinterpreted as having “adjacent segment disease” (and thus gets a new level fused) instead of being recognized as having opioid hyperalgesia (opioids can make long term pain worse, and the treatment for this is opioid tapering to improve the pain). Similarly, the total hip replacement patient or the total knee replacement patient with persisting pain can be misinterpreted as having the joint components loose or malpositioned, despite no evidence of either on imaging or exam, and thus have a “revision” surgery with new components inserted, when the pain problem was opioid use and not a problem with the implant.

Abstract 13 (Ty & McCabe, 2019) documents the ongoing problems opioid misuse patients have and thus further underscores that these patients do indeed have permanent impairments.

Abstract 1

Selected by James B. Talmage, MD

Published verbatim from [PubMed.gov](https://pubmed.gov), in the public domain.

[JAMA Netw Open](https://doi.org/10.1001/jamanetworkopen.2019.7222). 2019 Jul 3;2(7):e197222.

doi: 10.1001/jamanetworkopen.2019.7222.

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

Durand Z, Nechuta S, Krishnaswami S, Hurwitz EL, McPheeters M

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 Outcome 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.

PMID: 31314119 PMCID: [PMC6647548](#)

DOI: [10.1001/jamanetworkopen.2019.7222](https://doi.org/10.1001/jamanetworkopen.2019.7222)

Abstract 2

Selected by James B. Talmage, MD

Published verbatim from [PubMed.gov](https://pubmed.ncbi.nlm.nih.gov/), in the public domain.

[Ann Epidemiol.](#) 2019 Apr;32:7-13.
doi: [10.1016/j.annepidem.2019.02.001](https://doi.org/10.1016/j.annepidem.2019.02.001).

Prescription opioid use by injured workers in Tennessee: a descriptive study using linked statewide databases.

Purpose:

This is the first study in Tennessee to measure opioid use in injured workers and among the first nationally to use a prescription drug monitoring program to do so. We conducted a retrospective cohort study to evaluate the prevalence of opioid use after injury and associated characteristics among workers reporting one injury to Tennessee Workers' Compensation.

Methods:

Injured workers identified in Workers' Compensation records 2013-2015 were linked to their prescription history in Tennessee's prescription drug monitoring database.

Results:

Among 172,256 injured workers, the prevalence of receiving an opioid after injury was 22.8% in 1 week, 29.7% in 1 month, and 33.3% in 6 months. Receiving an opioid was associated with having a fracture (odds ratio, 4.9; 95% confidence interval, 4.64-5.11 vs. other injuries). Hydrocodone short-acting was the most commonly received opioid (69.5% of injured workers), and the mean of each worker's maximum dose was 42.8 morphine milligram equivalents (SD 39.26). Ten percent of injured workers who received opioids also received a benzodiazepine.

Conclusions:

Injured workers have a high prevalence of opioid use after injury, but prescribing patterns generally tend to follow Tennessee prescribing guidelines.

PMID: 30853149

DOI: [10.1016/j.annepidem.2019.02.001](https://doi.org/10.1016/j.annepidem.2019.02.001)

Abstract 3

Selected by James B. Talmage, MD

Published verbatim from [PubMed.gov](https://pubmed.gov), in the public domain.

[J Occup Environ Med.](#) 2018 Sep;60(9):820-826.

doi: [10.1097/JOM.0000000000001346](https://doi.org/10.1097/JOM.0000000000001346).

Opioid and Benzodiazepine Use Before Injury Among Workers in Washington State, 2012 to 2015.

Nkyekyer EW, Fulton-Kehoe D, Spector J, Franklin G.

Objective:

To characterize pre-injury prescription opioid and benzodiazepine use and its relationship with post-injury use and missed work among workers.

Methods:

Three hundred thirteen thousand five hundred forty three Washington State Department of Labor and Industries workers' compensation injury claims from 2012 to 2015 were linked with State Prescription Monitoring Program data. Pre-injury prevalence of opioid and benzodiazepine use were compared between compensable and non-compensable claims, and between workers with and without post-injury prescriptions, using the Pearson's chi-squared test.

Results:

The prevalence of opioid or benzodiazepine use in the 90 days before injury was 8.6% and 2.9%, respectively. Workers with pre-injury opioid or benzodiazepine use were more likely to have compensable claims and be on opioids or benzodiazepines, respectively, after injury. Cases with chronic opioid use pre-injury nearly universally receive opioids post-injury.

Conclusions:

Pre-injury opioid and benzodiazepine use may increase the risk of disability after work-related injury.

PMID: 29668527 DOI: [10.1097/JOM.0000000000001346](https://doi.org/10.1097/JOM.0000000000001346)

[Indexed for MEDLINE]

Abstract 4

Selected by James B. Talmage, MD

Published verbatim from [PubMed.gov](https://pubmed.gov), in the public domain.

J Occup Environ Med. 2019 Aug;61(8):653-658.

doi: 10.1097/JOM.0000000000001640.

Implementation of an Opioid Guideline Impacts on Opioid Prescriptions, Adverse Outcomes, and an Association with a State Opioid-Related Fatalities.

Phillips AL, Thiese MS, Freeman M, Kartchner R, Hegmann KT.

Objective:

The aim of this study was to determine the efficacy of an evidence-based opioid guidelines-based program implemented at the largest worker's compensation insurer in Utah.

Methods:

All new claims, including surgeries, were included. Pre- and post-intervention comparisons included percentage of claims treated with an opioid, provision of a second opioid prescription, opioid use above 50 mg morphine equivalent dose (MED), opioid use more than 90 mg MED, and opioid use over 90 days.

Results:

There were significant ($P < 0.001$) reductions in all primary outcomes, with a reduction in MEDs in the 18 months after implementation totaling 65,502 mg.

Conclusion:

This program significantly reduced the usage of opioids among acute claims. The year of program implementation, Utah experienced a 19.8% reduction in opioid-related fatalities, which may be partly related to the reduction in MEDs. Regardless, this study suggests that the implementation of an evidence-based guideline is impactful and feasible.

PMID: 31348425

DOI: [10.1097/JOM.0000000000001640](https://doi.org/10.1097/JOM.0000000000001640)

Abstract 5

Selected by James B. Talmage, MD

Published verbatim from [PubMed.gov](https://pubmed.gov), in the public domain.

[JAMA Netw Open](https://jamanetworkopen.2019.10734). 2019 Sep 4;2(9):e1910734. d
doi: 10.1001/jamanetworkopen.2019.10734.

Opioid Prescribing After Surgery in the United States, Canada, and Sweden.

Ladha KS, Neuman MD, Broms G, Bethell J, Bateman BT, Wijeyesundera DN, Bell M Hallqvist L, Svensson T15, Newcomb CW, Brensinger CM, Gaskins LJ, Wunsch H.

Importance:

Small studies and anecdotal evidence suggest marked differences in the use of opioids after surgery internationally; however, this has not been evaluated systematically across populations receiving similar procedures in different countries.

Objective:

To determine whether there are differences in the frequency, amount, and type of opioids dispensed after surgery among the United States, Canada, and Sweden.

Design, Setting, and Participants:

This cohort study included patients without previous opioid prescriptions aged 16 to 64 years who underwent 4 low-risk surgical procedures (ie, laparoscopic cholecystectomy, laparoscopic appendectomy, arthroscopic knee meniscectomy, and breast excision) between January 2013 and December 2015 in the United States, between July 2013 and March 2016 in Canada, and between January 2013 and December 2014 in Sweden. Data analysis was conducted in all 3 countries from July 2018 to October 2018.

Main Outcomes and Measures:

The main outcome was postoperative opioid prescriptions filled within 7 days after discharge; the percentage of patients who filled a prescription, the total morphine milligram equivalent (MME) dose, and type of opioid dispensed were compared.

Results:

The study sample consisted of 129 379 patients in the United States, 84 653 in Canada, and 9802 in Sweden. Overall, 52 427 patients (40.5%) in the United States were men, with a mean (SD) age of 45.1 (12.7) years; in Canada, 25 074 patients (29.6%) were men, with a mean (SD) age of 43.5 (13.0) years; and in Sweden, 3314 (33.8%) were men, with a mean (SD) age of 42.5 (13.0). The proportion of patients in Sweden who filled an opioid prescription within the first 7 days after discharge for any procedure was lower than patients treated in the United States and Canada (Sweden, 1086 [11.1%]; United States, 98 594 [76.2%]; Canada, 66 544 [78.6%]; $P < .001$). For patients who filled a prescription, the mean (SD) MME dispensed within 7 days of discharge was highest in United States (247 [145] MME vs 169 [93] MME in Canada and 197 [191] MME in Sweden). Codeine and tramadol were more commonly dispensed in Canada (codeine, 26 136 patients [39.3%]; tramadol, 12 285 patients [18.5%]) and Sweden (codeine, 170 patients [15.7%]; tramadol, 315 patients [29.0%]) than in the United States (codeine, 3210 patients [3.3%]; tramadol, 3425 patients [3.5%]).

Conclusions and Relevance:

The findings indicate that the United States and Canada have a 7-fold higher rate of opioid prescriptions filled in the immediate postoperative period compared with Sweden. Of the 3 countries examined, the mean dose of opioids for most surgical procedures was highest in the United States.

PMID: 31483475

PMCID: [PMC6727684](#)

DOI: [10.1001/jamanetworkopen.2019.10734](https://doi.org/10.1001/jamanetworkopen.2019.10734)

Abstract 6

Selected by James B. Talmage, MD

Published verbatim from [PubMed.gov](https://pubmed.gov), in the public domain.

BMJ. 2017 Mar 14;356:j760.

doi: 10.1136/bmj.j760.

Association between concurrent use of prescription opioids and benzodiazepines and overdose: retrospective analysis.

Sun EC, Dixit A, Humphreys K, Darnall BD, Baker LC, Mackey S.

Objectives:

To identify trends in concurrent use of a benzodiazepine and an opioid and to identify the impact of these trends on admissions to hospital and emergency room visits for opioid overdose.

Design:

Retrospective analysis of claims data, 2001-13.

Setting:

Administrative health claims database.

Participants:

315,428 privately insured people aged 18-64 who were continuously enrolled in a health plan with medical and pharmacy benefits during the study period and who also filled at least one prescription for an opioid.

Interventions:

Concurrent benzodiazepine/opioid use, defined as an overlap of at least one day in the time periods covered by prescriptions for each drug.

Main outcome measures:

Annual percentage of opioid users with concurrent benzodiazepine use; annual incidence of visits to emergency room and inpatient admissions for opioid overdose.

Results:

9% of opioid users also used a benzodiazepine in 2001, increasing to 17% in 2013 (80% relative increase). This increase was driven mainly by increases among intermittent, as opposed to chronic, opioid users. Compared with opioid

users who did not use benzodiazepines, concurrent use of both drugs was associated with an increased risk of an emergency room visit or inpatient admission for opioid overdose (adjusted odds ratio 2.14, 95% confidence interval 2.05 to 2.24; $P < 0.001$) among all opioid users. The adjusted odds ratio for an emergency room visit or inpatient admission for opioid overdose was 1.42 (1.33 to 1.51; $P < 0.001$) for intermittent opioid users and 1.81 (1.67 to 1.96; $P < 0.001$) chronic opioid users. If this association is causal, elimination of concurrent benzodiazepine/opioid use could reduce the risk of emergency room visits related to opioid use and inpatient admissions for opioid overdose by an estimated 15% (95% confidence interval 14 to 16).

Conclusions:

From 2001 to 2013, concurrent benzodiazepine/opioid use sharply increased in a large sample of privately insured patients in the US and significantly contributed to the overall population risk of opioid overdose.

PMID: 28292769

PMCID: [PMC5421443](#)

DOI: [10.1136/bmj.j760](#)

Abstract 7

Selected by James B. Talmage, MD

Published verbatim from [PubMed.gov](https://pubmed.gov), in the public domain.

[JAMA Netw Open](https://doi.org/10.1001/jamanetworkopen.2019.3365). 2019 May 3;2(5):e193365.

doi: 10.1001/jamanetworkopen.2019.3365.

Strategies to Identify Patient Risks of Prescription Opioid Addiction When Initiating Opioids for Pain: A Systematic Review.

Klimas J, Gorfinkel L, Fairbairn N, Amato L, Ahamad K, Nolan S, Simel DL, Wood E.

Importance:

Although prescription opioid use disorder is associated with substantial harms, strategies to identify patients with pain among whom prescription opioids can be safely prescribed have not been systematically reviewed.

Objective:

To review the evidence examining factors associated with opioid addiction and screening tools for identifying adult patients at high vs low risk of developing symptoms of prescription opioid addiction when initiating prescription opioids for pain.

Data Sources:

MEDLINE and Embase (January 1946 to November 2018) were searched for articles investigating risks of prescription opioid addiction.

Study Selection:

Original studies that were included compared symptoms, signs, risk factors, and screening tools among patients who developed prescription opioid addiction and those who did not.

Data Extraction and Synthesis:

Two investigators independently assessed quality to exclude biased or unreliable study designs and extracted data from higher quality studies. The Preferred Reporting Items for Systematic Reviews and Meta-analyses of Diagnostic Accuracy Studies (PRISMA-DTA) reporting guideline was followed.

Main Outcome and Measures:

Likelihood ratios (LRs) for risk factors and screening tools were calculated.

Results:

Of 1287 identified studies, 6 high-quality studies were included in the qualitative synthesis and 4 were included in the quantitative synthesis. The 4 high-quality studies included in the quantitative synthesis were all retrospective studies including a total of 2 888 346 patients with 4470 cases that met the authors' definitions of prescription opioid addiction. A history of opioid use disorder (LR range, 17-22) or other substance use disorder (LR range, 4.2-17), certain mental health diagnoses (eg, personality disorder: LR, 27; 95% CI, 18-41), and concomitant prescription of certain psychiatric medications (eg, atypical antipsychotics: LR, 17; 95% CI, 15-18) appeared useful for identifying patients at high risk of opioid addiction. Among individual findings, only the absence of a mood disorder (negative LR, 0.50; 95% CI, 0.45-0.52) was associated with a lower risk of opioid addiction. Despite their widespread use, most screening tools involving combinations of questions were based on low-quality studies or, when diagnostic performance was assessed among high-quality studies, demonstrated poor performance in helping to identify patients at high vs low risk.

Conclusions and Relevance:

While a history of substance use disorder, certain mental health diagnoses, and concomitant prescription of certain psychiatric medications appeared useful for identifying patients at higher risk, few quality studies were available and no symptoms, signs, or screening tools were particularly useful for identifying those at lower risk.

PMID: 31050783

PMCID: [PMC6503484](#)

DOI: [10.1001/jamanetworkopen.2019.3365](https://doi.org/10.1001/jamanetworkopen.2019.3365)

Abstract 8

Selected by James B. Talmage, MD

Published verbatim from [PubMed.gov](https://pubmed.ncbi.nlm.nih.gov/), in the public domain.

BMJ. 2015 Jan 5;350:g6380.

doi: [10.1136/bmj.g6380](https://doi.org/10.1136/bmj.g6380).

Opioids for low back pain.

Deyo RA, Von Korff M, Duhkoop D.

Back pain affects most adults, causes disability for some, and is a common reason for seeking healthcare. In the United States, opioid prescription for low back pain has increased, and opioids are now the most commonly prescribed drug class. More than half of regular opioid users report back pain. Rates of opioid prescribing in the US and Canada are two to three times higher than in most European countries. The analgesic efficacy of opioids for acute back pain is inferred from evidence in other acute pain conditions. Opioids do not seem to expedite return to work in injured workers or improve functional outcomes of acute back pain in primary care. For chronic back pain, systematic reviews find scant evidence of efficacy. Randomized controlled trials have high dropout rates, brief duration (four months or less), and highly selected patients. Opioids seem to have short term analgesic efficacy for chronic back pain, but benefits for function are less clear. The magnitude of pain relief across chronic non-cancer pain conditions is about 30%. Given the brevity of randomized controlled trials, the long term effectiveness and safety of opioids are unknown. Loss of long term efficacy could result from drug tolerance and emergence of hyperalgesia. Complications of opioid use include addiction and overdose related mortality, which have risen in parallel with prescription rates. Common short term side effects are constipation, nausea, sedation, and increased risk of falls and fractures. Longer term side effects may include depression and sexual dysfunction. Screening for high risk patients, treatment agreements, and urine testing have not reduced overall rates of opioid prescribing, misuse, or overdose. Newer strategies for reducing risks include more selective prescription of opioids and lower doses; use of prescription monitoring programs; avoidance of co-prescription with sedative hypnotics; and reformulations that make drugs more difficult to snort, smoke, or inject.

PMID: 25561513

DOI: [10.1136/bmj.g6380](https://doi.org/10.1136/bmj.g6380)

Abstract 9

Selected by James B. Talmage, MD

Published verbatim from [PubMed.gov](https://pubmed.gov), in the public domain.

JAMA. 2018 Mar 6;319(9):872-882.

doi: 10.1001/jama.2018.0899.

Effect of Opioid vs Nonopioid Medications on Pain-Related Function in Patients With Chronic Back Pain or Hip or Knee Osteoarthritis Pain: The SPACE Randomized Clinical Trial.

Krebs EE, Gravelly A, Nugent S, Jensen AC, DeRonne B, Goldsmith ES, Kroenke K, Bair MJ, Noorbaloochi S.

Importance:

Limited evidence is available regarding long-term outcomes of opioids compared with nonopioid medications for chronic pain.

Objective:

To compare opioid vs nonopioid medications over 12 months on pain-related function, pain intensity, and adverse effects.

Design, Setting and Participants:

Pragmatic, 12-month, randomized trial with masked outcome assessment. Patients were recruited from Veterans Affairs primary care clinics from June 2013 through December 2015; follow-up was completed December 2016. Eligible patients had moderate to severe chronic back pain or hip or knee osteoarthritis pain despite analgesic use. Of 265 patients enrolled, 25 withdrew prior to randomization and 240 were randomized.

Interventions:

Both interventions (opioid and nonopioid medication therapy) followed a treat-to-target strategy aiming for improved pain and function. Each intervention had its own prescribing strategy that included multiple medication options in 3 steps. In the opioid group, the first step was immediate-release morphine, oxycodone, or hydrocodone/acetaminophen. For the nonopioid group, the first step was acetaminophen (paracetamol) or a nonsteroidal anti-inflammatory drug. Medications were changed, added, or adjusted within the assigned treatment group according to individual patient response.

Main Outcomes and Measures:

The primary outcome was pain-related function (Brief Pain Inventory [BPI] interference scale) over 12 months and the main secondary outcome was pain intensity (BPI severity scale). For both BPI scales (range, 0-10; higher scores = worse function or pain intensity), a 1-point improvement was clinically important. The primary adverse outcome was medication-related symptoms (patient-reported checklist; range, 0-19).

Results:

Among 240 randomized patients (mean age, 58.3 years; women, 32 [13.0%]), 234 (97.5%) completed the trial. Groups did not significantly differ on pain-related function over 12 months (overall P = .58); mean 12-month BPI interference was 3.4 for the opioid group and 3.3 for the nonopioid group (difference, 0.1 [95% CI, -0.5 to 0.7]). Pain intensity was significantly better in the nonopioid group over 12 months (overall P = .03); mean 12-month BPI severity was 4.0 for the opioid group and 3.5 for the nonopioid group (difference, 0.5 [95% CI, 0.0 to 1.0]). Adverse medication-related symptoms were significantly more common in the opioid group over 12 months (overall P = .03); mean medication-related symptoms at 12 months were 1.8 in the opioid group and 0.9 in the nonopioid group (difference, 0.9 [95% CI, 0.3 to 1.5]).

Conclusions and Relevance:

Treatment with opioids was not superior to treatment with nonopioid medications for improving pain-related function over 12 months. Results do not support initiation of opioid therapy for moderate to severe chronic back pain or hip or knee osteoarthritis pain.

PMID: 29509867

PMCID: [PMC5885909](#)

DOI: [10.1001/jama.2018.0899](#)

Abstract 10

Selected by James B. Talmage, MD

Published verbatim from [PubMed.gov](https://pubmed.ncbi.nlm.nih.gov/), in the public domain.

[Spine \(Phila Pa 1976\)](#). 2019 Jun 15;44(12):887-895.

doi: 10.1097/BRS.0000000000002964.

Preoperative Opioids and 1-year Patient-reported Outcomes After Spine Surgery.

Hills JM, Pennings JS, Archer KR, Wick JB, Daryoush J, Butler M, Sivaganesan A, Khan I, Call R, Devin CJ.

Study Design:

Longitudinal Cohort Study.

Objective:

Determine 1-year patient-reported outcomes associated with preoperative chronic opioid therapy and high-preoperative opioid dosages in patients undergoing elective spine surgery.

Summary of Background Data:

Back pain is the most disabling condition worldwide and over half of patients presenting for spine surgery report using opioids. Preoperative dosage has been correlated with poor outcomes, but published studies have not assessed the relationship of both preoperative chronic opioids and opioid dosage with patient-reported outcomes.

Methods:

For patients undergoing elective spine surgery between 2010 and 2017, our prospective institutional spine registry data was linked to opioid prescription data collected from our state's Prescription Drug Monitoring Program to analyze outcomes associated with preoperative chronic opioid therapy and high-preoperative opioid dosage, while adjusting for confounders through multivariable regression analyses. Outcomes included 1-year meaningful improvements in pain, function, and quality of life. Additional outcomes included 1-year satisfaction, return to work, 90-day complications, and postoperative chronic opioid use.

Results:

Of 2128 patients included, preoperative chronic opioid therapy was identified in 21% and was associated with significantly higher odds (adjusted odds ratio [95% confidence interval]) of not achieving meaningful improvements at 1-year

in extremity pain (aOR:1.5 [1.2-2]), axial pain (aOR:1.7 [1.4-2.2]), function (aOR:1.7 [1.4-2.2]), and quality of life (aOR:1.4 [1.2-1.9]); dissatisfaction (aOR:1.7 [1.3-2.2]); 90-day complications (aOR:2.9 [1.7-4.9]); and postoperative chronic opioid use (aOR:15 [11.4-19.7]). High-preoperative opioid dosage was only associated with postoperative chronic opioid use (aOR:4.9 [3-7.9]).

Conclusion:

Patients treated with chronic opioids prior to spine surgery are significantly less likely to achieve meaningful improvements at 1-year in pain, function, and quality of life; and less likely to be satisfied at 1-year with higher odds of 90-day complications, regardless of dosage. Both preoperative chronic opioid therapy and high-preoperative dosage are independently associated with postoperative chronic opioid use.

LEVEL OF EVIDENCE: LEVEL II.

PMID: 30601356

DOI: [10.1097/BRS.0000000000002964](https://doi.org/10.1097/BRS.0000000000002964)

Abstract 11

Selected by James B. Talmage, MD

Published verbatim from [PubMed.gov](https://pubmed.gov), in the public domain.

Prescription Opioid Type and the Likelihood of Prolonged Opioid Use After Orthopaedic Surgery.

Basilico M, et al. J Am Acad Orthop Surg. 2019.

Introduction:

A common belief is that some narcotic medications have a higher association with prolonged use. We assessed whether the initial opiate type prescribed to postoperative, opiate-naive orthopaedic trauma patients was associated with prolonged opioid use.

Methods:

We studied 17,961 adult, opiate-naive patients treated for a surgical musculoskeletal injury. Discharge prescription in morphine milligram equivalents (MMEs, a standardized dosing unit that allows for comparison across opioid types) was calculated. Opioid prescribing beyond 90 days after injury was defined as prolonged use.

Results:

Initial analysis demonstrated a higher likelihood of prolonged use for patients discharged on hydromorphone or morphine versus hydrocodone. However, when we adjusted for discharge MME, only opioid quantity was predictive of prolonged use ($P < 0.001$). In addition, discharge MME was associated with opioid type ($P < 0.01$).

Discussion:

Persistent opiate use was associated with discharge opioid quantity, not the opioid type. These results highlight the importance of calculating equivalence doses when selecting opioid types and considering amount of narcotics prescribed.

LEVEL OF EVIDENCE: Level III.

PMID 30289795

PMCID PMC6590520

Abstract 12

Selected by James B. Talmage, MD

Published verbatim from [PubMed.gov](https://pubmed.ncbi.nlm.nih.gov/), in the public domain.

[J Bone Joint Surg Am.](#) 2019 Mar 6;101(5):384-391.

doi: 10.2106/JBJS.18.00502.

Prediction of Complications, Readmission, and Revision Surgery Based on Duration of Preoperative Opioid Use: Analysis of Major Joint Replacement and Lumbar Fusion.

Jain N, Brock JL, Malik AT, Phillips FM, Khan SN.

Background:

Preoperative opioid use results in adverse outcomes and higher costs after elective surgery. However, duration thresholds for higher risk are not entirely known. Therefore, the purpose of our study was to determine the number and duration of preoperative opioid prescriptions in order to estimate the risk of postoperative adverse events after major joint replacement and lumbar fusion.

Methods:

National insurance claims data (2007 to September 30, 2015) were used to identify primary total knee arthroplasties (TKAs), total hip arthroplasties (THAs), and 1 or 2-level posterior lumbar fusions (PLFs) performed for degenerative disease. The effect of preoperative opioid burden (naive, ≤ 3 months, >3 to 6 months, >6 months but stopped 3 months before surgery, and >6 months of continuous use) on the risks of various adverse outcomes was studied using Cox proportional hazards analysis with adjustment for demographic and clinical covariates.

Results:

A total of 58,082 patients stratified into 3 cohorts of 32,667 with TKA, 14,734 with THA, and 10,681 with 1 or 2-level PLF were included for this analysis. A duration of preoperative opioids of >3 months was associated with a higher risk of 90-day emergency department (ED) visits for all causes and readmission after TKA. Preoperative opioid prescription for >6 months was associated with a higher risk of all-cause and pain-related ED visits, wound dehiscence/infection, and hospital readmission within 90 days as well as revision surgery within 1 year after TKA, THA, and PLF. Stopping the opioid prescription 3 months preoperatively for chronic users resulted in a significant reduction in the risk of adverse outcomes, with the greatest impact seen after THA and PLF.

Conclusions:

Patients with a preoperative opioid prescription for up to 3 months before a major arthroplasty or a 1 or 2-level lumbar fusion had a similar risk of adverse outcomes as opioid-naive patients. While >6 months of opioid use was associated with a higher risk of adverse outcomes, a 3-month prescription-free period before the surgery appeared to mitigate this risk for chronic users.

LEVEL OF EVIDENCE: Therapeutic Level II.

PMID: 30845032

DOI: [10.2106/JBJS.18.00502](https://doi.org/10.2106/JBJS.18.00502)

Abstract 13

Selected by James B. Talmage, MD

Published verbatim from [PubMed.gov](https://pubmed.gov), in the public domain.

J Clin Psychiatry. 2019 Nov 19;80(6). pii: 19m12853.

doi: 10.4088/JCP.19m12853.

Prescription Opioid Misuse in US Older Adults: Associated Comorbidities and Reduced Quality of Life in the National Epidemiologic Survey of Alcohol and Related Conditions-III.

Schepis TS, McCabe SE.

Objective:

Prescription opioid misuse (POM) prevalence in US older adults (50 years and older) has increased, and preliminary evidence associates POM with poor outcomes. Despite this, little is known about the health-related quality of life, mental and physical health, and substance use profiles of older adults with current and/or past POM. The aim of this study was to evaluate differences in these variables by POM history in US older adults.

Methods:

Data were from the 2012-2013 National Epidemiologic Survey of Alcohol and Related Conditions-III, using adults 50 years and older (n = 14,667). Respondents were grouped into mutually exclusive categories: no lifetime POM, prior-to-past-year POM, past-year POM, and persistent POM (ie, prior-to-past-year and past-year POM). Groups were compared using design-based linear regression on health-related quality of life and logistic regression on mental health, physical health, and substance use variables, controlling for sociodemographics.

Results:

Older adults with persistent POM had the greatest impairment, including lower mental and physical health-related quality of life and high rates of past-year major depression (17.6%), emergency department use (42.7%), and any substance use disorder (37.4%). Older adults with past-year POM had high rates of physical health diagnoses and health care utilization (eg, 45.6% past-year overnight hospitalization), while those with prior-to-past-year POM had significant current psychopathology (eg, 13.7% with past-year major depression).

Conclusions:

Older adults with persistent POM likely need multidisciplinary care for their significant physical and mental health and substance use conditions. Given the elevated psychopathology in those with persistent POM, psychiatrists are well placed to identify those with long-term POM.

PMID: 31747489

DOI: [10.4088/JCP.19m12853](https://doi.org/10.4088/JCP.19m12853)

A Fond Farewell To Presiding Judge Davidson

Jane Salem, Esquire



Lawyers and judges love to tell war stories. Presiding Judge Marshall L. Davidson, III of the Tennessee Workers' Compensation Appeals Board is no exception.

Rather than relating a tale that (not so subtly) brags about his legal prowess, one of Judge Davidson's most memorable cases involves a third-grader named Devon that he met through his volunteer efforts with CASA (Court-Appointed Special Advocate) in child neglect and abuse cases.

One day, Judge Davidson noticed the boy wore shiny sneakers during a meeting at his school. Rather than asking if the shoes were new, he asked if they were "fast." Devon gleefully said yes and offered a demonstration. He and Judge Davidson looked down the school hallway to make sure no one would see. Breaking the rules? Maybe. But it was worth it to see the joy on the boy's face after a sprint. He told Judge Davidson, "I've never had new shoes before."

It broke his heart. "I just wanted to buy him a hundred pairs of new shoes," Judge Davidson recalled.

Judge Davidson had to stop working cases for CASA when he was appointed to the Appeals Board in 2014 because ethics rules prohibit judges from testifying.

Now that he's leaving the Board, he and his wife of 33 years, Salena, can resume the more hands-on work of helping kids. It's something they're really looking forward to.

Appeals Board Accomplishments

It's great news for CASA; it's sad news for the Bureau of Workers' Compensation, which benefitted tremendously from Judge Davidson's nearly six years leading the state's first Workers' Compensation Appeals Board.



The Board, under Judge Davidson's leadership, has issued over 400 opinions. The statute contains tight deadlines for the Board to release decisions on receiving the record; the Board has never missed a deadline and often issues its opinions well before those timeframes. The opinions are highly regarded among the legal community for their excellence. In fact, three opinions that were appealed to the Supreme Court's Special Workers' Compensation Panel were adopted in whole by those panels. In addition, over that time, the Board was instrumental in changing the law to allow for oral argument and has conducted numerous oral arguments across the state.

In sum, the Board, led by Judge Davidson, has accomplished a great deal in little time. So it comes as no surprise that the Bureau of Workers' Compensation is going to miss Judge Davidson tremendously when he leaves the Board to become Disciplinary Counsel for the Tennessee Board of Judicial Conduct.

Learning from Outstanding Mentors

Judge Davidson was born in Michigan but moved to Tennessee at age 12. He graduated from Lebanon High School, earned a bachelor's from Middle Tennessee State University and then a juris doctor from the University of Tennessee in Knoxville. He also served in the military throughout his college and law school years.

He spent a relatively short time in private practice but soon realized that mandatory Saturday morning meetings of the firm's litigation section weren't for him. "I did not want to miss my kids growing up," Judge Davidson said. "One of the things I'm most proud of, actually, is I've never missed any event that my kids had at school or sports."

Judge Davidson accepted a position with the Tennessee Supreme Court as a staff attorney in 1992. On his first day, Chief Justice Frank Drowota emphasized work-life balance. Judge Davidson recalls, "He said, 'When you neglect the people and causes that keep us anchored, we'll drift, personally and professionally, in ways that often aren't good.' And that advice made a huge impression on me as a new lawyer, and more importantly as a new husband and dad."

Justice Drowota turned out to be a longtime mentor, offering valuable advice over the various stages of Judge Davidson's life.

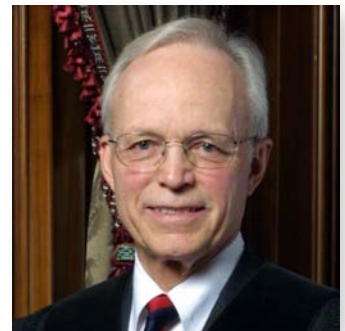
"At 30, he said to enjoy your children, for they'll grow quickly. He was right. At 40, he said to enjoy the little things in life, because one day you realize those are actually the big things in life."

Then when Judge Davidson turned 50, Justice Drowota swore him in as a judge. He gave Judge Davidson the same advice he received decades earlier at his own swearing in as a judge. He quoted Micah 6:8: "Do justice. Love mercy. And walk humbly with your God."

Judge Davidson said, "It's lessons such as these that have less to do about law and more about life that I'm most grateful for, and Justice Drowota was instrumental in helping me learn those things. But he wasn't the only one. I worked with 17 different supreme court justices, and I learned from all of them."

The New Gig

On Jan. 1, Judge Davidson will become Disciplinary Counsel for the Board of Judicial Conduct. The ethics Board receives more than 400 complaints against judges per



year. Like most other kinds of cases, most ethics cases involving judges are resolved without a trial.

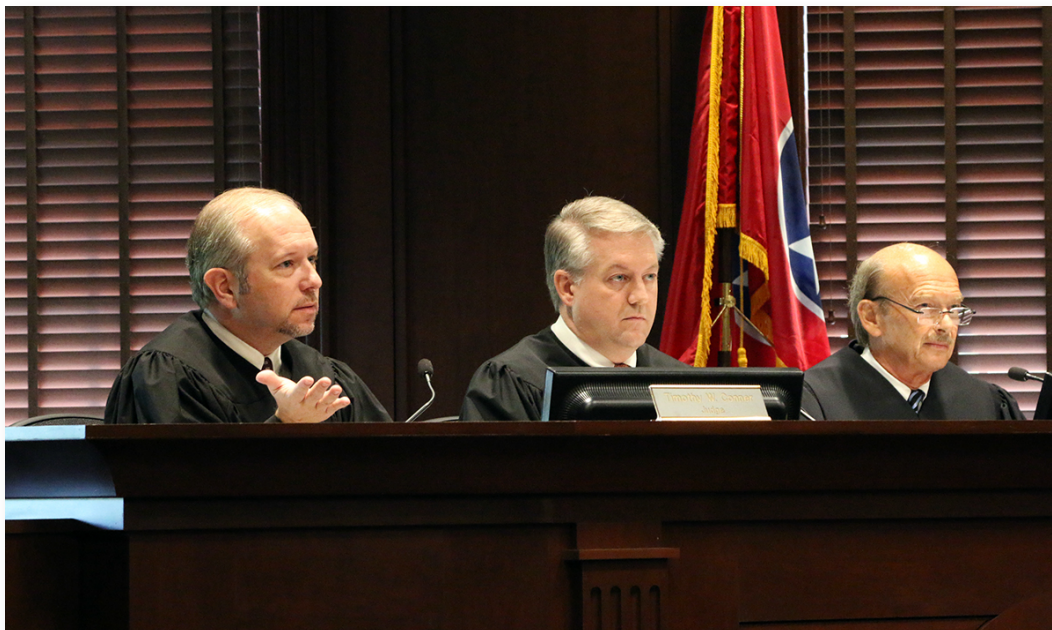
In addition to prosecuting cases, a significant part of the job is to educate judges on what they can do ethically. "That's probably the part I'm going to enjoy the most," he said.

"The public has to have confidence in the integrity of our legal system. Once that trust is diminished, the harm has been done. And of all people who should know better than to do things that are criminal or unethical, it's judges—the very people who serve as the face of our legal system."

Judge Davidson brings a wealth of teaching experience to his new job. He has taught at the Nashville School of Law since 1992 and will teach a workers' compensation course at Belmont Law School next semester as well.

He muses, however, that if he could do any other occupation and money weren't a consideration, he'd be cutting grass along the highway. Lawn work "is my therapy," he explained. "It's just me and the mower. No phone; no technology. Just me and my thoughts."

Right now, he and Salena are watching the PBS Ken Burns Country Music documentary in their free time. They also enjoy travel with their three adult children, typically to Disney, the beach or a tropical island.



Announcements

BWC Releases 2019 Annual Report

 [Read the report](#)

BWC Updates Available via Email

 [Subscribe to our newsletter](#)

Read Previous Issues of AdMIRable Review

Now searchable online by impairment rating topic or physician biography.

 [Read archived issues](#)

MIR Physician Listing

A complete list of the TN MIRR is now available online.

 [Access registry list](#)

Apply to be an MIR Physician

 [Apply online](#)

Submission Guidelines

AdMIRable Review accepts electronic submissions for medicolegal articles related to Tennessee Workers' Compensation. Manuscripts prepared in accordance with the American Psychological Association (APA) guidelines are preferred and must not exceed 20 typewritten, double-spaced pages. Tables, charts, notes, and references should be on separate pages. A double-spaced summary of approximately 100 words as well as a biographical paragraph describing the author's affiliation, research interest, and recent publications is appreciated. Submission of a manuscript implies permission and commitment to publish in *AdMIRable Review*. Authors submitting manuscripts to *AdMIRable Review* should not simultaneously submit them to another public-administration journal. Submissions and inquiries should be directed to *AdMIRable Review*, Editorial Staff, at Jay.Blaisdell@tn.gov.

AdMIRable Review

Tennessee Bureau of Workers' Compensation
220 French Landing Dr, Suite 1-B, Nashville, TN 37243

p. 615-253-5616 f. 615-253-5263 Jay.Blaisdell@tn.gov



The Tennessee Department of Labor and Workforce Development is committed to principles of equal opportunity, equal access, and affirmative action. Auxiliary aids and services are available upon request to individuals with disabilities.

Tennessee Department of Labor and Workforce Development; Authorization No. 337621, December 2019. This public document was promulgated for electronic use only.

