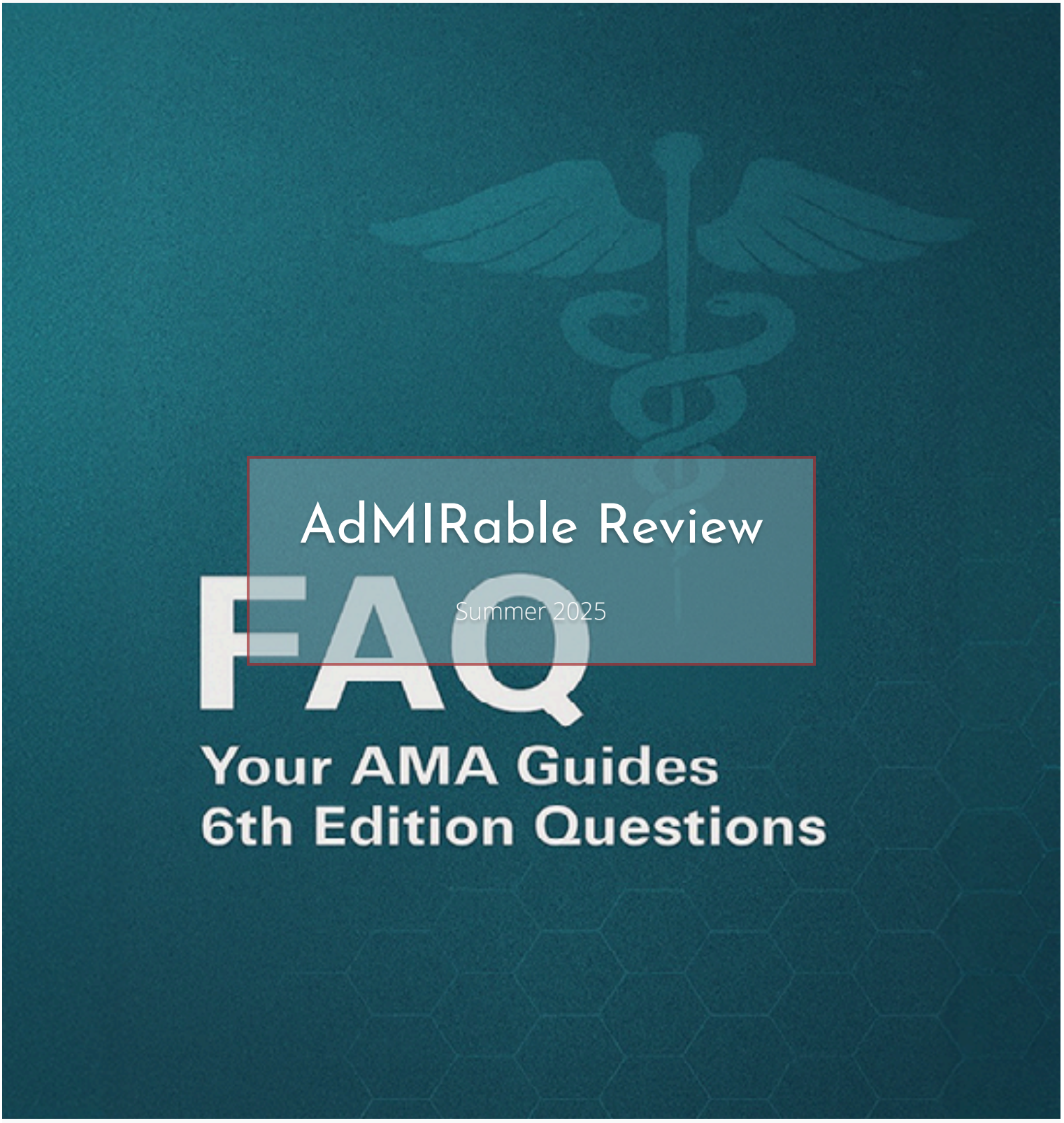
AdMIRable Review
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FAQ
Your AMA Guides
6th Edition Questions

IN THIS ISSUE

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Frequently Asked Questions about AMA Guides®, 6th Edition (2008 book) Impairment Ratings

James B. Talmage, MD; Robert B. Snyder, MD

Left to Right: James B. Talmage, MD; Robert B. Snyder, MD

The Tennessee Bureau of Workers' Compensation Medical Impairment Rating Registry and the Certified Physician Program coordinator have received recurring questions on issues that we will discuss in this issue of the *AdMIRable Review*. In each case, a "book answer" may be hidden in the 615 pages of "*Guides*®" text or in the Tennessee workers' compensation statute (law).

QUESTION #1: WHEN DO I USE THE PAIN DISABILITY QUESTIONNAIRE (PDQ)?

The PDQ has been printed in the *Guides®, 6th Edition* on pages 43 and 599-600, and it is intended to be used in the Pain chapter and the Spine chapter. This is a 15-question PROM (Patient Reported Outcome Measure) with each question scored on a 0-10 Likert scale. Higher scores indicate worse pain-related impairment.

The Tennessee legislature amended the statute (law) governing workers' compensation. Section 50-6-204 (k) (3) now states:

"The treating physician or chiropractor shall assign impairment ratings as a percentage of the body as a whole and **shall not consider complaints of pain** in calculating the degree of impairment, **notwithstanding** allowances for pain provided by the applicable edition of the AMA Guides® as established by this chapter." (Emphasis added).

The Tennessee BWC Medical Director's guidance on the implications of this statutory change states:

1. Do not use Chapter 3, or **PDQ**, in most circumstances.
2. In nerve injury, use sensory deficit as opposed to pain assessment (not "or pain").

It may still be appropriate to use chapter 3 for a ratable diagnosis but not for grading pain severity, and thus not for choosing an impairment integer. For example, painful “dry eye” after penetrating injury to the globe (“eyeball”) or painful non-union of multiple rib fractures are conditions that really do have a pain-related impairment. But they do not have a methodology for rating other than using Chapter 3 (Pain) as a justification for a rating, and then determining a rating by analogy as “this condition is most similar to” a condition for which the *Guides®, 6th Edition* has a clear rating methodology. The condition’s hinderance of ADLs is similar to those of the ratable condition. The Pain Chapter’s permitted range of 1% to 3% WPI is identical to the range permitted by Chapter 2, page 26, for permanent objective findings, but no apparent methodology to permit a rating exists in the *Guides*®

Judges will notice if a doctor quotes the law to a judge. The tactful way to discuss this in an impairment report is to cite the Medical Director’s guidance on pain and impairment, and not to cite the statute.

QUESTION #2 HOW IS THE GRADE MODIFIER CLINICAL STUDIES (GMCS) USED, AND HOW IS IT USED, IN RATING PERIPHERAL NERVE ENTRAPMENTS?

How to rate peripheral nerve entrapments in the Upper Limb is discussed in the Guides®, Section 15.4F “Entrapment Neuropathy” on pages 432-3, 445-450, and 487-490. Having the “instructions” in three different places is unfortunate. [*The Guides® Newsletter* review of this question is in the Sep/Oct 2008 issue, pages 9-10.]

Unlike the diagnosis-based impairments in the Upper Limb, the nerve entrapment section does NOT use the same three-grade modifier system. The text explains this is because in the Diagnosis Based Impairment system (DBI) in the Upper Limb, the first step is to determine a diagnosis, whereas if a rater is turning to the nerve entrapment section, the diagnosis has already been established. However, the text points out (*Guides*®, page 433) that if the test results (electrodiagnostic testing) exclude the condition from rating using this section/method, the general DBI from Tables 15-3 and 15-4 should be used with the diagnosis of non-specific hand, wrist, or elbow pain. So, for example, if the clinical diagnosis is carpal tunnel syndrome, or ulnar mononeuropathy at the elbow, and yet the electrodiagnostic testing report does NOT show prolonged motor or sensory distal latencies by the criteria in Appendix 15B (pages 487-490), then despite the unverified clinical diagnosis used for treatment, Section 15.4f CANNOT be used to rate the impairment.

Appendix 15-B has criteria for determining whether the electrodiagnostic testing report "fits" with mild (conduction delay), moderate (conduction block), or severe (axon loss) nerve pathophysiology. The *Guides®, 6th Edition* (2008) book was written in 2007 when no national organization had yet defined "normal" for nerve conduction testing, and each physician who did this testing chose his/her own definition of "normal." Wide variation in "normal" resulted in the expected wide variation of the prevalence of carpal tunnel syndrome and other nerve entrapments. In 2016, the American Association of Neuromuscular and Electrodiagnostic Medicine (AANEM) published definitions for normal versus abnormal nerve conduction testing results for the Upper and the Lower Limbs (Chen et al, 2016). They reviewed 7,500 published studies and chose 401 studies to use to define "normal." Happily, the 2016 AANEM criteria for carpal tunnel syndrome exactly match the *AMA Guides®, 6th Edition*, Appendix 15-B, 2008 criteria.

Thus, despite a clinical diagnosis of a nerve entrapment, *if* the pre-operative electrodiagnostic testing report does not have abnormal findings by the Guides® Appendix 15-B criteria, the rating is to come from the general DBI system (Tables 15-3 or 15-4) using the diagnosis of "non-specific pain." The *Guides*® points out that:

> Very mild nerve entrapments do exist and may fail to meet the Guides®' criteria for impairment related to nerve entrapment diagnosis. Similarly, although real symptoms exist in tension pattern headache, dysmenorrhea, irritable bowel syndrome, and fibromyalgia syndrome, these conditions do not typically rise to the level of ratable impairment.

We will now discuss how the *Guides®, 6th Edition* uses the electrodiagnostic test report for nerve entrapments, and this differs from the GMCS in the DBI system.

If the electrodiagnostic testing report is abnormal by *Guides*® criteria, the ultimate rating will come from Table 15-23, page 449. Step 1 is select a Table 15-23 column to use for the rating based on the nerve conduction testing. Entrapment severity is classified as conduction delay, conduction block, axon loss, or essentially dead nerve, by criteria in Appendix 15-B.

Step 2 is to choose a Table 15-23 (page 449) column for History. Raters should note that the terms “mild, intermittent symptoms,” “significant intermittent symptoms,” and “constant symptoms” are defined on page 433. “[M]ild, intermittent symptoms” are defined as annoying, but the patient **can perform all** Activities of Daily Living (ADLs – defined in Table 1-1, page 7). The next severity grade is “significant intermittent symptoms,” defined as not constant, and “…the individual is **unable** to perform at least one of the ADLs.” Thus, if choosing this symptom severity grade, the examiner should state in the impairment report which ADL the patient cannot do and **why** a second human has to do that activity for the patient. “Constant symptoms” means constantly present. The caveat stated is that if this symptom severity is chosen, the electrodiagnostic testing must show “…at least conduction block if not axon loss …to substantiate the symptom severity.”

Step 3 is to choose a Physical Exam grade from Table 15-23. Page 433 gives guidance and states that provocative testing (Tinel, Phalen, Adson test, etc.) may give clues as to diagnosis, but they lack the sensitivity and specificity to confirm the diagnosis (and are not used). The text points out reliable physical exam findings are thenar atrophy or neurologic weakness due to the nerve entrapment. The examiner should exclude these findings if due to co-morbid thumb carpal metacarpal joint osteoarthritis. Examiners should also remember that weakness in thumb abduction from neuropathy impairing the abductor **pollicis** brevis muscle *("little muscle" in the thenar eminence innervated by the median nerve distal to the carpal tunnel*) may be missed on exam or "hidden" by normal strength in the abductor pollicis **longus** muscle (*much bigger muscle belly in the forearm innervated by the uninvolved radial nerve*). Thus, the examiner should test for strength in the opponens pollicis muscle, the only muscle capable of rotating the thumb metacarpal. To do this the patient "pre-positions" with the volar pads of the distal phalanges of the thumb and the little finger opposed (touching) meaning the thumb metacarpal is fully rotated. The patient then resists while the examiner grips the thumb and attempts to "derotate" the thumb away from the little finger.

Carpal Tunnel Scars

"Somewhat reliable findings" are decreased sensation assessed by either static two-point discrimination, absent sharp versus dull sensation (severe neuropathy), or by abnormal monofilament testing. Normal values for two-point discrimination are stated in Table 15-15 (page 426), and normal values for monofilament testing are stated in Table 15-13 (page 424). The text on page 424-5 has multiple caveats about sensory testing, including noting that callused hands from habitual heavy use should be considered (*use monofilament testing the uninvolved nerve in the symptomatic hand and also in the asymptomatic hand to establish that person's "normal" monofilament perception*).

The text points out that atrophy should have been noted by other examiners, and that "pain caused by or worsened during strength testing invalidates that part (neurologic weakness) of the examination." The *Guides*® also provides a validity check on the sensory exam, as sensory testing is dependent on honest patient reporting during testing.

The electrodiagnostic tests **must** meet the definition of at least conduction block and almost always will meet the definition of axon loss **if** the sensory exam is abnormal or **if** there is neurologic motor weakness present on examination.

This requirement was also present in the *Guides®, 5th Edition* (page 493). The rationale for this statement/requirement is based in nerve physiology.

- An electrical stimulus is perceptible when it activates only one of the approximately 600 median nerve sensory fibers (Axons) in a normal finger.
- When the median nerve recovers from local anesthesia, normal sensitivity to two-point discrimination and von Frey hairs returns when the SNAP amplitude has returned to only 20% of normal. (A crude estimate of the percentage of nerve axons that have recovered from the anesthetic block and once again function.).
- Rosenbaum & Ochoa, *Carpal Tunnel Syndrome and Other Disorders of the Median Nerve, 2nd Edition*, Butterworth & Heineman, 2002

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Once these three “grades” are chosen, the instructions (page 448 – “Rating Process”) state the rater is to numerically average the three grades, and a final rating will come from the Table 15-23 column that corresponds to the rounded-off average grade. In the Diagnosis Based Impairment rating system the GMCS should not be included in the net adjustment formula if clinical studies are used to make the diagnosis, this rule pertains only to the Diagnosis Based Impairment (DBI) method. Since nerve entrapments use their own methodology, the rating physician will always include the GMCS when taking the numerical average of the grade modifiers, as described starting on page 448. In other words, do not exclude the GMCS when rating nerve entrapments.

In the row “Functional Scale” in Table 15-23, there are three stated ranges for the QuickDASH test score (higher number equals greater functional impairment). And in the row “UE Impairment,” there are three impairment integers for each cell. If the “functional scale” for the cell chosen is in the middle range, the middle integer from the “UE Impairment” cell is the final rating. If the “functional scale” score is in the less severe range for this cell, the first (lower numerically) score is to be chosen as the impairment rating. If the “UE Impairment” score is in the most severe) range, the last integer (numerically highest integer) is chosen.

This method, intended for use by the *Guides*®, **must** be modified in Tennessee workers’ compensation cases by our statute (law). The Medical Treatment provision, section 50-6-204(k)(3), states:

"The treating physician or chiropractor shall assign impairment ratings as a percentage of the body as a whole and **shall not consider complaints of pain** in calculating the degree of impairment, **notwithstanding** allowances for pain provided by the applicable edition of the AMA Guides® as established by this chapter." (Emphasis added).

This legal requirement should not be an issue for upper limb nerve entrapments. A recently published survey (Davids et al., 2025) documented that academic hand surgeons from multiple countries agree that “pain with activity” and “pain with provocative physical exam maneuvers (like Phalen and Tinel signs) are NOT consistent with nerve entrapments. When pain is the issue there are three possibilities:

- The patient misinterprets paresthesia (numbness) as pain. The physician needs to clarify what the patient means by pain (numbness is the patient experience that may be mislabeled by the patient as pain).
- The nerve entrapment diagnosis is wrong, and the patient has some other condition.
- The patient has both nerve entrapment and some other diagnosis.

For possibilities two and three, a separate causation analysis and treatment plan would logically be necessary.

The QuickDASH is publicly available as “open access.” Questions #9 and #11 both ask about pain interference with activity, and would, by the above statute, be excluded (not used). The Medical Director’s guidance suggests using sensory loss (if present) or muscle atrophy (if present) instead of pain for these questions, although many patients will have neither. Question #7 asks about social activity impairment, which would be very unusual in a nerve entrapment and if present must be explained in the report. Question #4 asks about impaired ability to wash your back, which would more likely be affected by shoulder and perhaps elbow difficulties than by nerve entrapment. If question #4 is rated as significantly impaired, the report should state how the nerve entrapment affects washing one’s back, to distinguish nerve entrapment from common shoulder joint impairment.

Examiners may note that QuickDASH scores are possible from 0-100, yet Table 15.23 stops with a QuickDASH of 80, perhaps raising the question of what to do with a QuickDASH greater than 80. The AMA Guides® Newsletter (Martin et al., 2020) dealt with this question. As this article points out, Southam's published series of patients with major hand injuries noted 30 of the 481 patients started hand therapy early after injury/surgery with a QuickDASH of greater than 80, but after rehab, **none** of the 481 patients had a QuickDASH score of greater than 80 (Southam et al., 2017). Resnick published a study on the validity and reliability of the QuickDASH questionnaire in 44 upper limb amputees, with 30 of the 44 examinees "as" prosthesis wearers (Resnik & Borgia, 2015). The mean (and standard deviation) QuickDASH scores were 42.0 ± 20.9 for shoulder disarticulation amputees, 40.1 ± 18.6 for transhumeral amputees, and 27.2 ± 13.2 for transradial amputees. The conclusion of the *Guides® Newsletter* review was scores greater than 80 indicate symptom exaggeration or mental health problems and do not reflect upper limb pathology.

QUESTION #3: WHEN ARE THE GRADE MODIFIERS FOR PHYSICAL EXAM AND CLINICAL STUDIES USED IN SPINE CASES?

In the spine chapter (Chapter 17) of the AMA *Guides*®, 6th Edition, each of major spinal regions (cervical, thoracic, and lumbar) has a diagnosis-based table with a similar pattern of organization. **Listed first is the row for** "non-specific pain," which is pain in the spinal region with or without non-verifiable radicular complaints (neck or back symptoms that radiate to a limb or midback pain that radiates to the chest) [pages 563]. For this category of spinal conditions, the GMFH is still used, but the **GMPE and GMCS are not applicable** (NOT used), "since there are **no** reliable physical findings or imaging findings in the group."

In Table 17-2 this row lists “Non-specific chronic, or chronic recurrent neck pain (also known as chronic sprain/strain, symptomatic degenerative disc disease, facet joint pain, chronic whiplash, etc.).” The list in Table 17-4 includes “Non-specific chronic, or chronic recurrent low back pain (also known as chronic sprain/strain, symptomatic degenerative disc disease, facet joint pain, SI joint dysfunction, etc.).” For both the cervical and the lumbar spine, the only cell in this diagnostic row in the table is Class 1, and the cell specifies that axial pain alone (spinal regional pain) and/or cases with non-verifiable radicular complaints “fit” in this cell.

This categorization of spinal pain corresponds to modern conceptions of spinal pain. For example, the recent comprehensive review (Hartvigsen et al., 2018) of low back pain problems written by 12 well-published researchers in the Lancet (journal) Low Back Pain Series Working Group from seven countries states:

> For nearly all people presenting with low back pain, the specific nociceptive source cannot be identified and those affected are then classified as having so-called non-specific low back pain.12 There are some serious causes of persistent low back pain (malignancy, vertebral fracture, infection, or inflammatory disorders such as axial spondyloarthritis) that require identification and specific management targeting the cause, but these account for a very small proportion of cases.

The “take home point” is that if the first row in one of the spine tables is being used for rating, there are no physical exam or imaging findings that correlate, by definition. This means the GMPE and GMCS are NOT used for cases that are rated from the first diagnostic row for non-specific spinal pain. They are used in cases rated from other rows in the spinal tables.

The term Non-Verifiable Radicular Complaints is defined on page 576 *Guides®*, *6th Edition*:

"Nonverifiable radicular complaints are defined as chronic persisting limb pain or numbness, which is consistently and repetitively recognized in medical records, in the distribution of a single nerve root that the examiner **can name** and with the following characteristics: **preserved sharp vs. dull sensation** and **preserved muscle strength** in the muscles it innervates, is **not significantly compressed on imaging**, and is **not affected on electrodiagnostic studies (if performed)**. Although there are subjective complaints of a specific radicular nature, there are inadequate or no objective findings to support the diagnosis of radiculopathy."

This is frequently overlooked by examiners with medical records stating, "*decreased sensation in the _____ dermatome*," which does not state what sensory modality was tested. Light touch that feels subjectively "different" to the patient is common, frequently migratory, and usually does not correlate with the ability to differentiate sharp from dull stimuli. This medical record statement does not permit a different examiner, or the same examiner on a different day, to determine if the sensory deficit is in the same exact location or is migratory. This physical exam shortcut is not consistent with the current definition of probable neuropathic pain by IASP (Finnerup et al, 2016), which requires the neurologic deficit to be consistently present in the same anatomic location (nerve damage does **not** appear, disappear, and reappear, or move to different locations over time).

The *AdMIRable Review* has previously published on:

- What's normal in cervical spine imaging - Winter 2025 issue
- What's normal in lumbar spine imaging – Winter 2024 issue
- The electrodiagnosis of true radiculopathy – Fall 2024 issue
- Common errors in spinal impairment ratings – Spring 2022 issue

The caveat here is that anatomic changes in spinal discs (even disc herniations) are common aging findings, like gray hair, but frequently do not cause symptoms or correlate with nerve root damage (true radiculopathy). The “What’s Normal” articles detail just how commonly these aging changes occur in asymptomatic adults. The AMA impairment Guides® have rated true radiculopathy **with** recognizable neurologic deficit at higher impairments in all editions (1st through 6th) compared to symptoms without neurologic deficit – the “Common Errors” AdMIRable Review article documents this.

The footnote to Table 17-4 on page 571 states:

Note: The following applies to the cervical, thoracic, and lumbar spine grids (tables): 1. Intervertebral disk herniation **excludes** annular bulge, annular tear, and disk herniation on imaging **without consistent** objective findings of radiculopathy at the appropriate level(s) when most symptomatic.

Note that the physical exam findings must correlate to the condition being rated.

If Physical Examination findings are determined to be unreliable or inconsistent, or they are for conditions **unrelated** to the condition being rated, they are **excluded** from the grading process.

An example: if rating a work-related L1 spinal fracture in a patient with a past history of a non-work-related L4-5 disc herniation with persisting neurologic deficit. The neurologic deficit, while present, does not relate to the fracture, and is not considered in assigning the GMPE.

For disc herniations diagnoses, the evaluating physician should likely include the value of GMCS in the net adjustment formula, since the physician is considering the totality of evidence—the patient’s physical evaluation, operation reports, and imaging—to make a diagnosis. In those rare instances when the physician relies exclusively on clinical studies to make a diagnosis, then the GMCS should be totally excluded from the net adjustment formula.

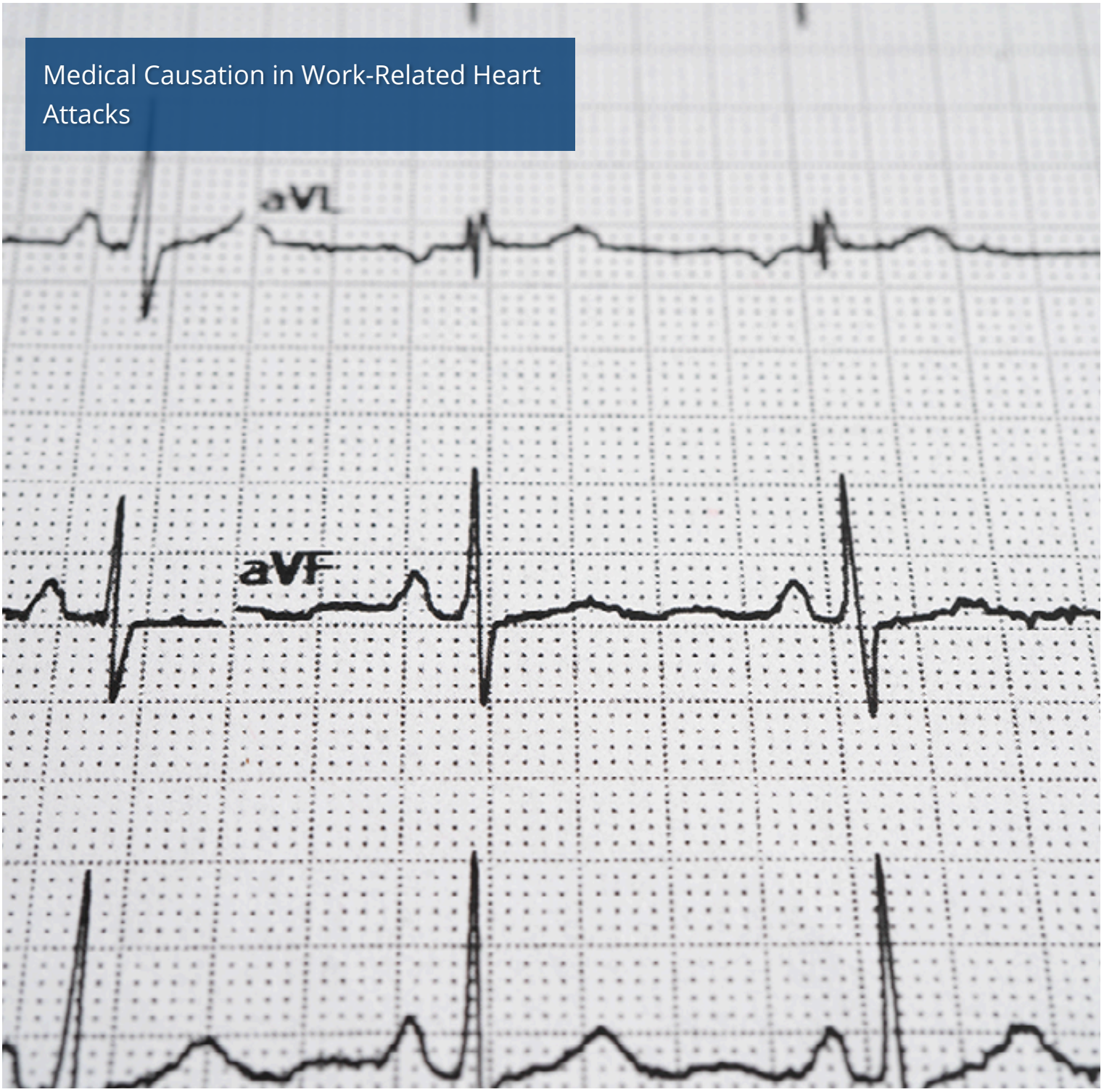
“Take Home” caveats are:

- To use the spine table row for disc herniation, the injured worker **must** at MMI, or at earlier points in time (“when most symptomatic”), have documented neurologic deficit (motor weakness, loss of the ability to distinguish sharp vs dull stimuli, or atrophy and/or reflex loss) that corresponds to imaging showing actual nerve root compression or needle EMG test evidence of radiculopathy. “Mild” or “moderate” stenosis on imaging **rarely** has associated nerve root compression, and thus **rarely** has associated neurologic deficit.
- Cases of pain or numbness in a limb at MMI but without the above neurologic deficit, have non-verifiable neurologic complaints now. If medical records document a time in the past when such neurologic deficit was present, and which correlates with imaging, then the “disk herniation” row in the spine tables is appropriate, and all three grade modifiers are used. The rating physician may choose to disqualify the GMCS as “used to establish a diagnosis,” or may choose to use the Operation Report to establish the diagnosis and class and use the imaging-related GMCS in the impairment calculation.
- Cases of pain or numbness in a limb at MMI, without the above neurologic deficit, have non-verifiable neurologic complaints now. If medical records do NOT document a time in the past when the required neurologic deficit was present, the case should be assigned to the diagnosis of NON-specific spinal pain. The GMPE and GMCS are not applicable (not used).

Hopefully this review of commonly asked questions will help examiners use the AMA *Guides*® accurately. The ethical precept of "distributive justice" is that all cases should be treated (and rated for impairment) in a similar fashion (Young & Wagner, 2024), whether in East or West Tennessee. Clinicians who use the AMA *Guides*® in a manner suggesting "*If I had written this book, this is what I would want it to say*," rather than the "*Guides® methodology* ***is***," result in similar cases receiving very different impairment ratings. This is inconsistent with both the principle of distributive justice and the purpose/mission of the *Guides*®.

Jump to ***references*** *for this article.*

Medical Causation in Work-Related Heart Attacks



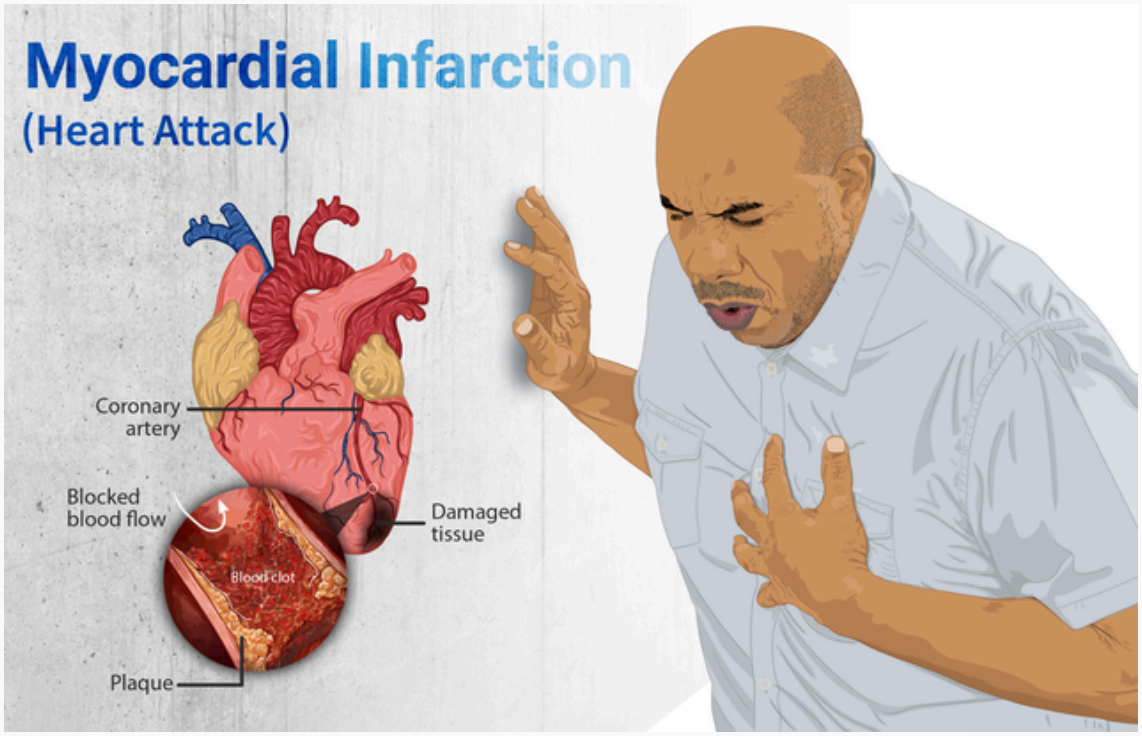
Medical Causation in Work-Related Heart Attacks

By Jane Salem, staff attorney, Nashville

Jane Salem

If you attended the Bureau's educational conference this past summer, you might've observed oral arguments before the Tennessee Workers' Compensation Appeals Board about medical causation in death cases involving a heart attack. It was only the second appellate case presenting this issue since the Reform Act took effect in 2014.

The Board's opinion in *Taylor v. Dale's Recycling* was released in July and offers valuable guidance for medical and legal practitioners alike.



The issue was whether Darrell Taylor's sudden death at work, after a traffic stop and physical exertion, qualified as a compensable heart attack.

Taylor was pulling a trailer loaded with about 39,000 pounds of scrap metal, when a police officer pulled him over because debris was falling from the trailer onto the highway. The officer instructed Taylor to secure the load. While Taylor worked in the summer heat, the officer left to take a phone call. When he returned, he found Taylor dead inside the trailer. He saw no signs of trauma, and no one witnessed the event.

A coroner didn't perform an autopsy or request one be performed. The death certificate listed "cardiorespiratory arrest" due to "chronic hypertension" and "diabetes" as the cause of death.

At trial, Taylor offered an opinion from Dr. Arvindh Kanagasundram, who testified that Taylor's death was "significantly more than 50%" caused by physiological changes related to physical and emotional stressors, and exposure to heat. As to emotional stressors, Taylor was distressed by being pulled over, and the resulting adrenaline rush could've caused spasms in a blocked artery, which would also diminish blood flow. That in turn could trigger a heart attack. Dr. Kanagasundram cited medical literature to support his opinion. As to preexisting conditions, Dr. Kanagasundram said Taylor had stable coronary artery disease and was a low- to moderate-risk heart patient.

Dale's Recycling offered a contrary opinion from Dr. Kishore Arcot, who testified the primary cause of Mr. Taylor's heart attack was his preexisting risk factors of being over age 45, a male, elevated blood pressure, type II diabetes, obesity, and high cholesterol. Given those risk factors, Dr. Arcot said "anyone" can "punch in the numbers" and see Mr. Taylor was at a 60-70% risk of a heart attack, adding "you don't have to be a physician," and "this is black and white." Dr. Arcot said Mr. Taylor "most likely" died of a heart attack, but talking to the officer or moving metal wasn't what caused it. Rather, the heart attack "just happened." Dr. Arcot believed Mr. Taylor could've just as likely have died then, the next day, two to four weeks later, or while "eating a Big Mac," he said.

The trial court found Taylor's death compensable, accepting Dr. Kanagasundram's opinion.

Judge Allen Phillips, Jackson, wrote that Dr. Kanagasundram explained how physical and emotional stressors led to the physiological changes causing Taylor's death, and how environmental factors affected those changes. He also explained how the other possible causes weren't the primary cause, and he backed his opinions with learned treatises.

Judge Phillips continued that, in contrast, Dr. Arcot was "laser-focused on the preexisting conditions." The doctor mentioned scholarly literature but didn't produce it.

"Mr. Taylor did not die upon rising, thinking about work, or eating a Big Mac. He might have, but he didn't," Judge Phillips wrote. "Instead, Mr. Taylor died when exerting himself in the heat at work after an unexpected traffic stop. The Court cannot 'punch in the numbers' and say otherwise. … Dr. Kanagasundram provides the color to what Dr. Arcot sees as black and white."

Dale's Recycling appealed, and the Board affirmed.

THE DECISION

The Board opinion, written by Judge Meredith Weaver, Knoxville, began by stating that pre-Reform Act caselaw set two categories of heart-attack cases: 1) those involving ordinary physical exertion; and 2) those involving unusual mental stressors. These categories remain, but, according to the Board's earlier, controlling opinion, *Mitchell v. Bunge North America*, under the Reform Act, an injury also must now "arise primarily out of and in the course and scope of employment."

"[W]hile it still makes no difference that the employee, prior to the heart attack, suffered from pre-existing heart disease or that the heart attack was precipitated by the usual physical strain of the employee's job, the proof must now establish the heart attack arose primarily from the employment considering all causes."

In addition, "the proof must establish that the heart attack resulted from a stressful incident of abnormal or unusual proportions arising primarily out of the employment rather than the day-to-day mental stresses and tensions experienced by an employee as part of his or her job." Further, "[w]hile heart attacks involving physical stressors require physical activity or exertion which may be ordinary in nature, heart attacks involving emotional stressors require abnormal or unusual incidents."

Applying these principles, the Board concluded that Taylor's death arose primarily from the combination of the emotional stress of the roadside traffic stop and the physical exertion of climbing into his trailer to secure loose scrap—not merely preexisting conditions.

At oral argument, Dale's Recycling had contended that a traffic stop was foreseeable for Taylor as a commercial truck driver and therefore not particularly unusual or stressful. The Board disagreed, reasoning that "nothing in the record suggests that this particular stop was merely an ordinary stress of Employee's job as a truck driver." Rather, the police officer's unrebutted testimony showed that Taylor was visibly anxious and nervous during the traffic stop. Further, at trial, the company's vice-president confirmed that no other Dale's driver was recently pulled over to secure loads, and loading scrap wasn't among Taylor's customary job duties.

At argument, Dale's further asserted that without an autopsy, Taylor couldn't prove causation. Again, the Board saw it differently, explaining in a footnote that both experts agreed Taylor suffered a sudden cardiac event, and Tennessee workers' compensation law requires only a "preponderance of the evidence, not absolute certainty."

The Board agreed with the decision to credit Dr. Kanagasundram, holding that "determinations by a court as to what constitutes an abnormal or unusual mental stressor are fact specific." Dr. Kanagasundram considered and explained all known causes, and he gave the more probable explanation of the cause of Taylor's death.

TAKEAWAYS

For starters, remember that I'm a staff attorney. These are just my impressions, not those of the whole Court. Please read the Board's opinion.

That said, in workers' compensation heart-attack cases, while preexisting conditions might be a *potential* cause, they are *the cause* only when "it can be shown to a reasonable degree of medical certainty that the aggravation arose primarily out of and in the course and scope of employment." So, in expert depositions, lawyers should take care to phrase questions using that standard, and physicians should try to use that language as well when answering questions or writing reports.

Further, a compensable heart attack might involve physical activity or exertion that is “ordinary in nature,” *or* emotional stressors requiring “abnormal or unusual incidents.” A combination of the emotional stress and physical exertion might also result in a compensable fatal heart attack. The facts surrounding the incident are a critical consideration for lawyers, judges, and doctors.

Finally, an autopsy is helpful in death cases but not required.

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