# STATE OF VERMONT DEPARTMENT OF LABOR

Carl Michaud Opinion No. 05-23WC

v. By: Stephen W. Brown

Administrative Law Judge

KPH Healthcare Services, Inc.

For: Michael A. Harrington

Commissioner

State File No. RR-57269

## **OPINION AND ORDER**

Hearing held via Microsoft Teams on August 4, 2022 Record closed on September 13, 2022

#### **APPEARANCES:**

Heidi Groff, Esq., for Claimant Jennifer Meagher, Esq., for Defendant

### **ISSUES PRESENTED:**

- 1) Is Claimant's vertebral osteomyelitis infection causally related to his November 27, 2021 workplace injury?
- 2) If so, to what benefits is he entitled? Claimant presently seeks temporary total disability benefits, medical benefits, and a screening for vocational rehabilitation services.

#### **EXHIBITS**:

Joint Exhibit Joint Medical Exhibit ("JME")

Claimant's Exhibit 1: Preservation Deposition of Andrew Hale, MD

Defendant's Exhibit A: Employee Report of Incident

Defendant's Exhibit B: Curriculum Vitae of Thomas H. Winters, MD

#### FINDINGS OF FACT:

- 1. I take judicial notice of all relevant forms and correspondence in the Department's file for this claim.
- 2. Defendant owns and operates a pharmacy in Montpelier, Vermont.

- 3. Claimant is a 67-year-old man who resides in Montpelier, Vermont. He began working for Defendant's corporate predecessor, Montpelier Pharmacy, in approximately 2007. Defendant acquired the pharmacy in 2017, and Claimant continued working for Defendant until December 28, 2021.
- 4. Claimant's job duties for Defendant were wide-ranging and included payroll, deposits, price changes, managing the store's planogram, managing over-the-counter pharmaceuticals, and cleaning. From October 2017 until the time he left, he generally worked between 24 and 28 hours per week with some lifting restrictions due to a chronic low back condition.
- 5. Claimant's wife also works for Defendant, and their hours often overlapped while Claimant worked at the pharmacy. Although they did not work in the same physical space, she was able to observe Claimant at work both before and after his injury.
- 6. Claimant has a history of low back pain dating to the late 1990s. Specifically, he received multiple epidurals for lower back pain between 1999 and 2003. During that time, he experienced significant discomfort from his beltline down, particularly with activities such as kneeling, related to sciatica and a herniated disc at the L4-L5 levels. From roughly 2003 until early November 2021, he continued to experience variable lower back pain that would be aggravated by twisting, but these back symptoms were generally stable. Claimant also suffered from arthritis in his hips, which caused more discomfort and pain. Despite these hip and back conditions, he remained active during this period with activities including golf, hiking, skiing, and snowshoeing.
- 7. On November 27, 2021, Claimant experienced sudden, significant back pain just below his beltline while cleaning a low shelf on his hands and knees at work. He had never felt a pain of that intensity before. Defendant initially accepted this claim for a low back strain and paid some medical benefits accordingly.
- 8. On December 1, 2021, Claimant presented to his primary care provider, Roger Kellogg, MD, via a telemedicine appointment, with complaints of worsening back pain and sciatica-like symptoms in his right leg. Claimant declined to take opioids for his pain, and Dr. Kellogg prescribed him a combination of Tylenol, ibuprofen, a tapering course of prednisone, and a muscle relaxant. (JME 159).
- 9. During a follow-up visit on December 10, 2021, Dr. Kellogg noted that Claimant was tender to palpation on his mid back, with no sciatic notch tenderness. They discussed changes in medication, lumbar x-ray, and a follow-up with orthopedics. Subsequent x-rays showed scoliosis and degenerative spondylosis at the L-2 through L-5 levels. (JME 160). Dr. Kellogg noted that Claimant had experienced back pain in the past and "did something at work that apparently exacerbated an underlying chronic condition. He has no radiculopathy." He adjusted Claimant's medication on December 14, 2021. (JME 162).

2

<sup>&</sup>lt;sup>1</sup> A "planogram" is "a schematic drawing or plan for displaying merchandise in a store so as to maximize sales." *See* https://www.merriam-webster.com/dictionary/planogram (last visited March 1, 2023 at 7:22 AM).

- 10. On December 20, 2021, Claimant presented to the Central Vermont Medical Center ("CVMC") Emergency Department, noting that his orthopedic appointment was not scheduled to take place until the following month. An MRI taken at CVMC showed an edema at L-2, as well as multiple degenerative changes including spondylosis. (JME 167).
- 11. On December 22, 2021, Claimant presented to Sarah Britton, APRN at CVMC Orthopedics & Spine Medicine. Her assessment was that Claimant's most prominent area of discomfort was across his lumbosacral junction. She suggested bilateral medial branch blocks and advised Claimant that he could work with restrictions. Due to the edema shown on Claimant's MRI, she also recommended additional thoracic and cervical MRIs as well as a bone scan. (JME 170).
- 12. By late December 2021, Claimant had difficulty standing and completing basic tasks like putting in his contact lenses and brushing his teeth.
- 13. On December 29, 2021, Claimant returned to CVMC's Emergency Department, reporting that his legs collapsed when he stood up from bed that day, and that he fell forward onto his knees. He was admitted to the hospital for acute on chronic back pain and a fall at home and remained hospitalized until January 4, 2022. (JME 195 *et seq.*). Claimant asserted a claim for temporary total disability benefits as a result, which Defendant denied on the grounds that his disability was not related to his workplace injury.
- 14. On January 3, 2022, Claimant underwent a biopsy of his L2 vertebral body and his L2-3 disc. The following day, board-certified infectious disease physician Jessie Leyse, MD concluded that Claimant suffered from osteomyelitis as a result of a *streptococcus mitis* infection. Dr. Leyse did not testify at the formal hearing in this case but has recorded a written opinion that Claimant developed osteomyelitis because of his workplace injury. Specifically, on January 6, 2022, she recorded her assessment in relevant part as follows:

66 y.o. M with h/o HTN, arthritis, and back pain who was recently admitted - now referred to ID for vertebral osteomyelitis. Back injury 11/27/21. Now with IR biopsy of L2 vertebral body and L2-3 disc space with Strep mitis group. It's impossible to say for sure what the progression of events was. But it seems most likely, given the lack of symptoms before his injury on 11/27, that he injured his back and subsequently developed an infection. Strep mitis is normal oropharyngeal flora, which most of us likely have in our blood every time we brush our teeth. Usually we have no problems, but sometimes when there's a pre-existing injury it can cause infection in that area.

(JME 314).

15. Claimant thereafter underwent intravenous antibiotic therapy, additional imaging studies, and numerous follow-up appointments. Dr. Kellogg completed applications for Claimant to receive short-term disability insurance benefits as well as Family and Medical Leave Act leave in January 2022. As part of those applications, he removed Claimant from work with an effective date of December 29, 2021, based on Claimant's severe back pain from osteomyelitis.

## Claimant's Current Condition

- 16. Claimant has not returned to work since his December 29, 2021 hospital admission due to his back pain.
- 17. As of the formal hearing in this case, his low back pain was worsening, and was the worst in his lower back and down his left leg. He has experienced some symptomatic relief following ablation therapies, but that relief has not lasted long-term. He experiences worsening pain from common activities like stooping, reaching, twisting, or riding or driving in a car. He can walk, but not as far as he used to. He can also perform some housework, but it takes him approximately three sessions to wash one meal's worth of dishes.
- 18. Claimant's treating doctor, occupational medicine physician Austin Sumner, MD, initially released Claimant to work five hour shifts three days a week with limitations on May 31, 2022, at Claimant's request. (JME 592). However, Claimant did not feel that he was able to perform that amount of work. Additionally, his wife testified that based on her perceptions, Claimant was unable to do more than fifteen minutes of anything without stopping. On July 13, 2022, Dr. Sumner took Claimant out of work completely. (JME 787).

# **Medical Expert Testimony**

- 19. Each party presented expert medical testimony: Claimant presented Andrew Hale, MD, and Defendant presented Thomas Winters, MD. Dr. Hale performed an independent medical evaluation (IME) of Claimant on May 9, 2022. (JME 751 et seq.). Dr. Winters performed a medical records review in February 2022 (JME 561 et seq.) and issued an addendum to his report on June 21, 2022 (JME 779 et seq.).
- 20. Although Drs. Hale and Winters differ in their opinion as to whether Claimant's lower back injury at work in November 2021 caused or contributed to his vertebral myelitis infection, they agree on the following key facts:
  - a. Streptococcus mitis is a bacterium that commonly lives in the human mouth.
  - b. Those bacteria most likely traveled from Claimant's mouth into his bloodstream as a result of him brushing his teeth.<sup>2</sup>

<sup>2</sup> Both physicians considered and rejected the possibility that this organism entered Claimant's bloodstream during a dental cleaning that Claimant underwent in September 2021, because Claimant used prophylactic antibiotics during that cleaning.

- c. Those bacteria eventually grew into an infection in the vertebral bodies of Claimant's spine at the L2 level.
- d. While it is impossible to ascertain a specific date when the bacteria first seeded into Claimant's spine, the edema observed on Claimant's December 20, 2021 lumbar MRI makes it highly likely that Claimant suffered from an infection at that time.
- e. The intravenous antibiotics that Claimant received for his osteomyelitis infection were reasonable and effective medical treatment.
- f. Claimant's osteomyelitis infection is now resolved, although he still suffers symptoms as a result of it.

### Dr. Hale

- 21. Dr. Hale is a board certified physician in the specialties of infectious disease and internal medicine, and a professor of infectious disease at the University of Vermont, where he manages the Infectious Disease Clinic. He attended medical school at Tufts University and completed his infectious disease residency and fellowship at Harvard Medical School. He is predominantly a clinician in infectious disease though he also performs research and has published approximately fifty articles in peer-reviewed publications. He has seen hundreds of cases involving vertebral myelitis and bacterial bone infections, including two such cases on the day he gave his testimony in this case. He also demonstrated an extensive and detailed knowledge of the peer-reviewed medical literature concerning the infectious patterns of the disease Claimant developed in this case.
- 22. Dr. Hale performed an independent medical examination ("IME") of Claimant in May 2022, in which he reviewed all of Claimant's relevant medical records, took an oral history from him, and performed a physical examination.
- 23. By the time of Dr. Hale's physical examination, Claimant's infection had resolved, but he had residual damage to areas of his spinal column where the bacteria had consumed his bone material. This damage, in Dr. Hale's opinion, is likely permanent.
- 24. Dr. Hale testified that Claimant was in a normal state of health with no significant deviations from his baseline before his November 27, 2021 workplace incident. In particular, he noted that as of November 17, 2021, just ten days prior to his workplace incident, Claimant had undergone routine blood testing in connection with a routine physical examination. At that time, Claimant's white blood cell count was on the low side of normal and platelet levels were normal, making it unlikely that he was suffering from any significant infection or inflammatory process at that time. (JME 133).

- 25. By December 29, 2021, however, Dr. Hale noted that Claimant's white blood count and platelet levels were both significantly higher, suggesting the presence of an infection. (JME 220). In Dr. Hale's opinion, this suggests that Claimant's infection began after his November 17 bloodwork. I find this credible and persuasive.
- 26. Dr. Hale testified that according to the medical literature surrounding *streptococcus mitis*, the organism responsible for Claimant's infection, is typically found in the mouth and can enter the bloodstream when a person brushes his teeth or undergoes dental work. Ordinarily, the immune system kills the bacteria quickly. However, the presence of a physical injury makes the organism more likely to land in the location of the injury and develop into an infection.
- 27. Dr. Hale noted that Claimant underwent a routine dental cleaning in September 2021 and received a prophylactic antibiotic prior to this cleaning because of a non-work-related cardiac condition. In Dr. Hale's opinion, that antibiotic most likely would have prevented a *streptococcus mitis* infection from taking hold at that time. Therefore, he found that the most likely explanation of this bacteria's presence in Claimant's bloodstream was that Claimant, while simply brushing his teeth, loosened up these bacteria in his mouth, and the workplace injury at his L2-L3 level made him more vulnerable to infection at that location. The bacteria lodged in that area and developed into an infection.
- 28. Thus, Dr. Hale's central opinion is that Claimant suffered a workplace injury on November 27, 2021 that traumatically changed the architectural structure of his spine, making it more susceptible to the bacterial infection that subsequently developed there; thus, in his opinion, Claimant's workplace incident on November 27, 2021 causally contributed to his vertebral osteomyelitis. While he acknowledged that it was impossible to know when the infection took place, he found that this sequence of events was the most probable. I find this assessment persuasive.

#### Dr. Winters

- 29. Dr. Winters is a board-certified physician in the specialties of internal medicine, preventative medicine, and occupational medicine. He attended medical school at Tufts University and completed a fellowship in infectious disease at Saint Vincent Hospital in Worcester, Massachusetts. He currently serves as an assistant professor of medicine at the Harvard School of Public Health. He has taught on the subject of medical causation at occupational medicine conferences and has also performed hundreds of medical records reviews for AIG and related companies to assess causation and work-relatedness of injuries.
- 30. Dr. Winters has some experience treating patients with vertebral myelitis, although none of the patients he has treated in the last twenty years have had that condition. Most of the patients he treated for that condition before that time were intravenous drug users.

- 31. He performed a review of Claimant's medical records in this case and has reviewed Dr. Hale's IME report and preservation deposition. He has not physically examined Claimant. On cross-examination, Dr. Winters also demonstrated a less thorough knowledge of the medical literature surrounding osteomyelitis and *streptococcus mitis* than Dr. Hale.
- 32. Dr. Winters agreed with Dr. Hale that Claimant brushing his teeth was the most likely route for *streptococcus mitis* to enter his bloodstream. However, he does not believe that a back strain from reaching at work, such as Claimant experienced on November 27, 2021, would be a sufficient injury to create an impetus for that bacteria to develop into a bacterial bone infection.
- 33. Dr. Winters noted that there are several known risk factors for developing vertebral osteomyelitis, including being immunocompromised, cancer, diabetes, age greater than fifty, being male, and having degenerative spinal disc conditions. Claimant exhibited three of these risk factors: being over fifty, being male, and having some degenerative spinal processes.
- 34. Dr. Winters testified that *streptococcus mitis* is generally a slow growing and low-virulence organism, although its precise incubation period is not known because it is generally not diagnosed until a patient becomes symptomatic.
- 35. In Dr. Winters's opinion, the pain Claimant experienced at work on November 27, 2021 was actually Claimant's first symptom of osteomyelitis. He believes that this infection had most likely been brewing in his body for months and that Claimant's work had no causal role in this infection. In his opinion, the fact that Claimant's first symptom manifested at work was a mere coincidence. While facially plausible, I do not find that this explanation adequately accounts for Claimant's normal bloodwork ten days before his workplace incident followed by elevated levels roughly month thereafter.

### **CONCLUSIONS OF LAW:**

- 1. Claimant has the burden of proof to establish all facts essential to the rights he asserts. Goodwin v. Fairbanks Morse & Co., 123 Vt. 161, 166 (1962); King v. Snide, 144 Vt. 395, 399 (1984). He must establish by sufficient credible evidence the character and extent of the injury, see Burton v. Holden & Martin Lumber Co., 112 Vt. 17, 20 (1941), as well as the causal connection between the injury and the employment. Egbert v. The Book Press, 144 Vt. 367, 369 (1984). There must be created in the mind of the trier of fact something more than a possibility, suspicion or surmise that the incidents complained of were the cause of the injury and the resulting disability, and the inference from the facts proved must be the more probable hypothesis. Burton, supra, 112 Vt. at 20; Morse v. John E. Russell Corp., Opinion No. 40-92WC (May 7, 1993).
- 2. The parties presented conflicting expert medical testimony regarding the causal relationship between Claimant's back condition and his November 27, 2021

workplace incident. In such cases, the Commissioner traditionally uses a five-part test to determine which expert's opinion is the most persuasive: (1) the nature of treatment and the length of time there has been a patient-provider relationship; (2) whether the expert examined all pertinent records; (3) the clarity, thoroughness and objective support underlying the opinion; (4) the comprehensiveness of the evaluation; and (5) the qualifications of the experts, including training and experience. *Geiger v. Hawk Mountain Inn*, Opinion No. 37-03WC (September 17, 2003).

- 3. In this case, the first and second factors weigh equally between Drs. Hale and Winters, as neither had a treating relationship with Claimant, and both reviewed the relevant medical records. The fifth factor also weighs substantially equally. Both physicians are well-credentialed and highly qualified. While Dr. Hale demonstrated a greater familiarity with the medical literature surrounding infections like Claimant's and has more recent experience treating such conditions, Dr. Winters has more extensive professional experience specifically analyzing the work-relatedness of injuries and illnesses.
- 4. The fourth factor favors Dr. Hale to some degree, as he physically examined Claimant, while Dr. Winters only reviewed Claimant's medical records. However, the importance of this difference is perhaps less in this case than in many others, because there is no question as to what sort of infection Claimant suffered from, and that infection had resolved by the time of Dr. Hale's physical examination. Additionally, both physicians' analysis focused more on Claimant's medical history and the general characteristics of *streptococcus mitis* infections than any direct clinical observations of Claimant's condition.
- 5. As in most workers' compensation cases involving conflicting expert opinions, the third factor matters most. I find that this factor favors Dr. Hale's analysis. As both experts credibly noted, it is impossible to be certain of when the infection began. However, I find that Dr. Hale's analysis better accounts for Claimant's normal blood chemistry ten days before his workplace incident and his increasing symptoms thereafter, with significantly higher white blood cell counts a month later. If, as Dr. Winters suspects, Claimant had been experiencing an infection for months before November 27, 2021, he has not convincingly explained his white cell count was on the low side of normal just ten days before that date and subsequent increase.
- 6. This is not to discount the relevance of the risk factors that Dr. Winters identified. Claimant's age, sex, and history of degenerative spinal conditions certainly could have been contributing factors to his development of vertebral osteomyelitis. However, Claimant's workplace injury need not be the sole cause of his infection to render it compensable; it is sufficient for it to be one of multiple contributing causes. *See McNall v. Town of Westford*, Opinion No. 08-19WC (May 10, 2019) ("...if Claimant's 2015 fall was one of several contributing factors, this claim would be compensable").
- 7. Given Claimant's relatively stable condition before his injury, the timing of his workplace incident, his subsequent symptom worsening, and his subsequent edema

- and increased infection markers, I am unconvinced that his workplace strain was a mere coincidence, as Dr. Winters believes.
- 8. Dr. Hale's convincing testimony that a physical injury creates conditions favorable for the development of an infection that would ordinarily be killed by the immune system, and the fact that Claimant experienced a lumbar strain followed by such an infection, leads me to find that the more probable conclusion is that Claimant's lumbar strain at work contributed to his development of osteomyelitis.

# Specific Benefits

- 9. Claimant is entitled to receive medical benefits for all treatment he has undergone relating to his now-resolved vertebral myelitis infection. *See* 21 V.S.A. § 640.
- 10. Additionally, the evidence convinces me that Claimant has had no meaningful work capacity since his hospital admission on December 29, 2021. Although Dr. Sumner released him to work with reduced hours and activity limitations at Claimant's request in May 2022, he took Claimant out of work entirely shortly thereafter. Accordingly, I conclude that Claimant is entitled to temporary total disability benefits from December 29, 2021, to the present, continuing until he either successfully returns to work or Defendant files, and the Department approves, a Discontinuance of Benefits (Form 27). See 21 V.S.A. § 642; Cote v. ADA Traffic Control, Ltd., Opinion No. 13-22WC (June 21, 2022). However, given the passage of time since Dr. Sumner's most recent out-of-work note, I find it appropriate for Claimant to undergo a new assessment of his work capacity, whether via a formal functional capacity evaluation or otherwise.
- 11. Because Claimant's period of entitlement to temporary total disability benefits exceeds ninety days, I conclude that he is entitled to a vocational rehabilitation screening pursuant to 21 V.S.A. § 641(a)(3); *Armstrong v. Norwich University*, Opinion No. 07-20WC (April 23, 2020).
- 12. There is currently no evidence in the record as to whether Claimant is at end medical result. As such, I have no basis to assess his entitlement for permanent partial disability benefits under 21 V.S.A. § 642. However, nothing in this opinion shall limit his right to such benefits after a showing that he has reached end medical result.

#### **ORDER:**

Based on the foregoing findings of fact and conclusions of law, Claimant is entitled to workers' compensation benefits for his vertebral osteomyelitis infection in accordance with this opinion.

| Michael A. Harrington |
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**DATED** at Montpelier, Vermont this 2nd day of March 2023.

# Appeal:

Within 30 days after copies of this opinion have been mailed, either party may appeal questions of fact or mixed questions of law and fact to a superior court or questions of law to the Vermont Supreme Court. 21 V.S.A. §§ 670, 672.

Commissioner