STATE OF VERMONT
DEPARTMENT OF LABOR

Jeremey Harrness

v.

Robert E. Therrien

Opinion No. 23-16WC

By: Phyllis Phillips, Esq.
Administrative Law Judge

For: Anne M. Noonan
Commissioner

State File No. M-12928

OPINION AND ORDER

Hearing held in Montpelier on February 10, 2016
Record closed on March 16, 2016

APPEARANCES:

Frank Talbott, Esq., for Claimant
Jennifer K. Moore, Esq., for Defendant

ISSUE PRESENTED:

Was Claimantôs hospitalization from January 2, 2014 through January 6, 2014 causally related to his 1998 work injury, such that Defendant is obligated to pay the associated medical bills under 21 V.S.A. § 640(a)?

EXHIBITS:

Claimantôs Exhibit 1:	Medical records related to 2014 hospitalization
Claimantôs Exhibit 2:	Medical bills related to 2014 hospitalization
Claimantôs Exhibit 3:	Superior Court Decision and Orders, *Jeremey K. Harrness v. Therrien Foundations*, Docket No. 557-11-05Wrcv, April 28, 2008
Claimantôs Exhibit 4:	Deposition of Robert Smith, MD, February 2, 2016
Defendantôs Exhibit A:	Medical records
Defendantôs Exhibit B:	Dr. Backusô medical records review, November 11, 2015

CLAIM:

Medical benefits pursuant to 21 V.S.A. § 640(a)
Costs and attorneyôs fees pursuant to 21 V.S.A. § 678

FINDINGS OF FACT:

1. At all times relevant to these proceedings, Claimant was an employee and Defendant was his employer as those terms are defined in the Vermont Workersô Compensation Act.

2. Judicial notice is taken of all forms and correspondence in the Departmentôs file relating to this claim.

Claimant's 1998 Work Injury and Subsequent Medical Course

3. Claimant was injured in a work-related motor vehicle accident in 1998 when he lost control of his vehicle on an icy highway. He was ejected from the vehicle and thrown 150 feet down the highway. The accident caused injury to his thoracic spine and necessitated removal of his spleen (in medical terms, a splenectomy), among other injuries.

4. The spleen is part of the bodyôs immune system. Its removal renders a person more susceptible to some types of infections. If he or she subsequently contracts such an infection, the resulting illness could be more severe. The increased risk, which is primarily associated with encapsulated bacteria, is of lifelong duration, though it is highest during the first two years. Asplenia (the medical term for the absence of a spleen) is not generally associated with an increased risk from viruses or non-encapsulated bacteria.

5. In November 2005 Claimant underwent disc removal surgery in his thoracic spine followed by a multilevel spinal fusion to treat injuries he received in the 1998 work-related accident.

6. During his hospital stay, Claimantôs spinal hardware became infected with MRSA, an antibiotic-resistant bacteria. The infection entailed a difficult period of recovery and a two-year course of antibiotic treatment. Claimant credibly testified that his physician advised him to go to the emergency room immediately if he ever has a fever higher than 100 degrees because that could indicate that his MRSA infection has recurred.

Claimant's 2014 Hospitalization

7. In December 2013 Claimant contracted an illness. He had a headache, sore throat, body aches and a productive cough. After some days, his condition worsened and his body temperature rose to 101 degrees. Consistent with his doctorôs prior instructions, he went to the emergency department at a local hospital in Montana, where he resided at the time, on January 2, 2014.

8. According to the emergency department medical records, Claimantôs chief complaint on arrival was ñfever (immunocompromised) and headache.ò Staff noted that he was chronically ill appearing, uncomfortable and sweaty. His body temperature was 102.1 degrees, his heart rate was elevated, and his chest x-ray showed signs of abnormality. He had a high white blood cell count, an increased C-reactive protein level, and an elevated lactic acid level, all of which are markers for inflammation or infection.

9. Claimant was diagnosed in the emergency department with Systemic Inflammatory Response Syndrome (SIRS). SIRS is a general diagnosis for cases in which markers for infection or inflammation are identified, but with no known cause.[1] The criteria for a diagnosis of SIRS include the presence of at least two of several factors, including fever, increased heart rate, increased respiratory rate, and a high white blood cell count.

10. Dr. Kremkau, an emergency department physician, ordered a variety of tests to determine the cause of Claimantôs SIRS, including tests for influenza and other infectious agents, but the results were negative. Dr. Kremkau suspected that Claimant had viral or bacterial pneumonia, but also noted the risk for a recurrence of MRSA. Not knowing the identity of the infectious agent, he administered two broad spectrum antibiotics to cover the possibility of a MRSA infection. Despite having failed to identify a specific infectious agent, Dr. Kremkau suspected nevertheless that Claimantôs SIRS was caused by an infection and that he was septic.

11. Claimant was admitted into the hospital the same day. At the time of admission, some of his vital signs and lab results had improved, and some had not. His blood pressure and heart rate were normal, and his body temperature was 98.8 degrees. As described in the contemporaneous medical record, he ñlook[ed] sick but not toxic.ò However, his lactate level was still elevated, he required supplemental oxygen, and he had a mild C-reactive protein elevation.

12. Dr. Caramore wrote the hospital admission note. He acknowledged that there had been concern about a possible MRSA infection in Claimantôs spinal hardware. However, with a normal erythrocyte sedimentation rate (ESR) and only mildly elevated C-reactive protein level, he doubted this was the case. Accordingly, he switched Claimant from the broad-spectrum antibiotics typically used to treat MRSA to more narrowly targeted antibiotics used to treat community-acquired pneumonia. He also wrote a note to recheck Claimantôs lactate level in six hours, because continued elevation could indicate a serious, even deadly, infection.

13. In the hospital, Claimant saw an infectious disease specialist, Dr. Christiansen. Dr. Christiansenôs January 4, 2014 note states in part: ñMost likely diagnosis is atypical pneumonia (possibly even viral).ò

14. Dr. Christiansen discharged Claimant from the hospital on January 6, 2014. Ultimately, his treating doctorsô best guess was that his illness was a community-acquired pneumonia, which could be viral or bacterial. At hearing, Claimant testified to his understanding that he had suffered a bout of viral pneumonia.

15. Claimant sought payment from Defendant for his hospitalization. In April 2015, Defendant denied responsibility on the grounds that the hospitalization was not causally related to his 1998 work injury. Claimant subsequently requested a hearing.

[1] If and when a specific infection is positively identified, the diagnosis changes to sepsis.

Expert Medical Opinions

16. The parties presented expert medical testimony as to the causal relationship, if any, between Claimantôs work-related medical history and his January 2014 hospitalization. More specifically, the expert opinion evidence sought to answer two questions: first, whether Claimantôs infection was one involving encapsulated bacteria, to which his asplenia rendered him more susceptible; and second, whether Claimant would have been admitted to the hospital even if he had presented with a functioning spleen and no history of MRSA.

17. As to the first question, as noted above, Finding of Fact No. 10 *supra*, tests for various infectious agents were all negative. While such results do not definitively exclude a diagnosis of bacterial infection, certainly they do not establish it. To the contrary, Dr. Christiansen, Dr. Backus and Dr. Smith all considered viral pneumonia a possible cause of his illness, though none of them could state that to the required degree of medical certainty. Nevertheless, lacking sufficient credible evidence establishing that Claimantôs infection resulted from encapsulated bacteria, I cannot find that his asplenia increased his risk or otherwise made him more susceptible.

18. As to the second question, whether Claimant would have been admitted to the hospital if he had a functioning spleen and no history of MRSA, the parties presented conflicting expert testimony. Claimantôs primary care physician, Dr. Smith, testified that but for the medical sequelae of his work-related injury, he likely would not have been hospitalized. Defendantôs independent medical examiner, Dr. Backus, testified that his condition merited in-patient observation regardless of his prior medical history.

(a) Dr. Smith

19. Dr. Smith graduated from the UCLA School of Medicine in 1991 and completed his residency in family medicine at the Indianapolis Community Hospital in 1994. He is board certified in family medicine and has worked as a family physician and community-based primary care provider since his residency. Dr. Smith testified by deposition.

20. Dr. Smith became Claimantôs primary care physician seven months prior to his hospitalization, when he took over for another doctor in the same practice who had retired. Dr. Smith had no involvement with Claimantôs 2014 hospitalization, and his opinions on that matter were based solely on his review of the pertinent medical records. Dr. Smith did not review Dr. Backusô report, and thus did not offer any testimony addressing Dr. Backusô causation opinion.

21. In Dr. Smithôs opinion, Claimant would not have been hospitalized if he had had a functioning spleen and no history of MRSA. He testified:

> The situation he has is not having a spleen present makes him at higher risk of getting very sick, to the point of, you know, possibly getting IV antibiotics and hospitalization; whereas most people, I think he was probably 38 years old or 37 years old at the time of this hospitalization, that get an outpatient or community acquired pneumonia wouldnôt be admitted to the hospital. But I believe the doctors that were taking care of him then said because he doesnôt have a spleen, a simple, you know, outpatient pneumonia could make somebody very sick and require IV antibiotics so that it doesnôt, you know, become a much more severe situation.

22. Dr. Smith testified that if a person presented to the hospital emergency room with a normal ESR (a marker for inflammation), a mild C-reactive protein level, a low grade fever and a functioning spleen, the likelihood that he or she would be admitted to the hospital was ñalmost zero.ò In his opinion, if the emergency room doctor thought such a patient even needed antibiotics at all, he or she would most likely either administer a single dose of intravenous antibiotics or prescribe a course of oral antibiotics, then discharge the patient home with instructions to follow up as needed.

23. Notably, the hypothetical patient Dr. Smith described in his testimony did not present with other markers for infection, such as an elevated lactate level, as Claimant did. When specifically questioned, Dr. Smith acknowledged that an elevated lactate level was suggestive of serious illness. It can be a sign of sepsis, which he described as a serious whole body infection in which bacteria invade the bloodstream. Dr. Smith conceded that while Claimant did not appear seriously ill at the time of his admission, his abnormally elevated lactate level might have led the emergency department doctor to admit him for further treatment.

24. I find that Dr. Smithôs failure to consider the various markers for infection with which Claimant presented at the hospital, particularly his elevated lactate level, significantly weakens his opinion that he would not have been admitted but for his asplenia.

25. Dr. Smith further testified that it was ñprobably speculationò on his part that Claimantôs asplenia was the cause of his hospital admission, as he did not see Claimant at that time. I find that this further weakens his causation opinion.

(b) Dr. Backus

26. At Defendantôs request, Dr. Backus reviewed all of Claimantôs pertinent medical records and offered his opinion whether the 2014 hospitalization was work-related. Dr. Backus is board certified in occupational and environmental medicine. He completed his residency at Harvard, where he also obtained a Masterôs Degree in public health. The latter program included biostatistics and epidemiology, both of which made him adept at reviewing medical literature and understanding the science behind questions involving causation and evidence-based medical treatment guidelines. Dr. Backus has clinical experience and training in the assessment, evaluation and treatment of individuals presenting for emergency care.

27. In Dr. Backusô opinion, Claimantôs 2014 hospitalization was not causally related to his work injury. Specifically, according to his analysis Claimant would have been admitted into the hospital based solely on his clinical presentation, regardless of his history of asplenia and MRSA infection.

28. Dr. Backus observed that when Claimant came to the emergency department for evaluation, he exhibited multiple factors indicative of SIRS, a serious medical condition that can cause a patient to deteriorate rapidly. These included fever, an increased heart rate, a high white blood cell count and the inability to sustain an oxygen saturation rate above 92 percent without the use of supplemental oxygen. He also had an abnormal chest x-ray, insufficient fluid in his blood, an elevated C-reactive protein level and an elevated lactate level.

29. An increased lactate level can be very serious, as it indicates an increased risk for rapid deterioration. A person with an elevated lactate level might have or develop septicemia, a serious blood infection, or even disseminated intravascular coagulation, a potentially fatal condition in which the blood coagulates or clots throughout the bloodstream.

30. Dr. Backus testified that Claimant was admitted into the hospital both because he had been diagnosed with SIRS and possibly sepsis, and because his medical condition was unstable. There was a serious risk of deterioration requiring urgent action by the hospital staff. In Dr. Backusô opinion, the hospital admissions doctor appropriately considered Claimantôs medical history of MRSA and asplenia, but that was not the reason for his admission. I find this analysis credible.

31. According to Dr. Backus, the only specific factor related to Claimantôs medical history that affected his treatment was the emergency department doctorôs initial choice of two broad spectrum antibiotics effective against MRSA and other encapsulated bacteria. When it became apparent upon admission to the hospital that Claimant had a community-acquired infection, not MRSA, different antibiotics were prescribed.

32. Dr. Backus disagreed with Dr. Smithôs position that Claimantôs condition had markedly improved prior to his admission, such that but for his asplenia and history of MRSA his hospitalization would have been unnecessary. He acknowledged that at the time the decision to admit Claimant was made, some of his vital signs and lab results had improved ï his body temperature was 98.8 degrees, he looked ñsick but not toxic,ò and his ESR was normal. Nevertheless, he still had an elevated C-reactive protein level, an abnormal chest x-ray, an elevated lactate level and a high white blood cell count. Dr. Backus credibly testified that it is not uncommon for a patientôs body temperature to cycle up and down, as in fact Claimantôs had, ranging from 102.1 earlier in the day to 98.8 upon his admission. There was still reason to remain concerned about his fever, therefore. There was also concern that his chest x-ray might show infiltrates after he was rehydrated, and he continued to require supplemental oxygen. In Dr. Backusô opinion, all of these factors were determinative of Claimantôs admission for further treatment, to make sure he was getting better, not worse, and none of them were triggered by his injury-related medical history. I find this analysis persuasive in all respects.

CONCLUSIONS OF LAW:

1. In workersô compensation cases, the claimant has the burden of establishing all facts essential to the rights asserted. *King v. Snide*, 144 Vt. 395, 399 (1984). He or she must establish by sufficient credible evidence the character and extent of the injury, *see, e.g., Burton v. Holden & Martin Lumber Co.*, 112 Vt. 17 (1941), as well as the causal connection between the injury and the employment, *Egbert v. The Book Press*, 144 Vt. 367 (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* at 19; *Morse v. John E. Russell Corp.*, Opinion No. 40-92WC (May 7, 1993). A claimant cannot meet his burden of proof with speculative testimony. *Daignault v. State of Vermont Economic Services Division*, Opinion No. 35-09WC (September 2, 2009).

2. The primary disputed issue here is whether Claimantôs hospitalization was causally related to his work injury, such that Defendant is responsible to pay for it. To resolve that issue, it is necessary to determine whether he would have been admitted regardless of his asplenia and history of MRSA, as those conditions provide the only plausible link back to that event.

3. The parties presented conflicting expert medical testimony on this issue. In such cases, the Commissioner traditionally uses a five-part test to determine which expertôs 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).

4. Relying primarily on the third factor, I conclude that Dr. Backusô causation opinion is more persuasive than Dr. Smithôs. Dr. Backus reviewed all of Claimantôs medical records, including all of the objective test results and vital sign measurements from his arrival at the emergency department through the time of his hospital admission. He credibly explained the significance of those findings and the risks they posed, particularly as to patients who present with an elevated lactate level. As Dr. Backus convincingly explained, this finding alone indicates a risk for sudden, even life-threatening, deterioration.

5. In contrast, by his own admission Dr. Smithôs opinion was speculative and incomplete. He failed to fully account for the lab results and vital signs that would have led even a patient with an intact spleen to be hospitalized, including recent history of fever, need for supplemental oxygen and elevated lactate level. Moreover, given the possibility that the latter finding may have indicated sepsis, he conceded there might have been sufficient cause to admit Claimant on that basis alone.

6. As for the other elements of the *Geiger* test, I acknowledge that Dr. Smith is Claimantôs treating physician, but he did not evaluate or treat Claimant during his 2014 hospitalization, and his prior history with Claimant was brief. Thus, I give no more weight to his testimony than I do to Dr. Backusô. Both experts based their opinions on a review of Claimantôs medical records, although Dr. Backusô review was more extensive. Neither was board certified in emergency medicine, but both had sufficient education and training to offer an opinion.

7. In the final analysis, I conclude that Dr. Backus offered a clear, thorough and objectively supported analysis, whereas Dr. Smith did not. On those grounds, I conclude that Dr. Backusô opinion is the most credible.

8. I conclude that Claimant has failed to sustain his burden of proving the necessary causal relationship between his 1998 work injury and his 2014 hospitalization, and therefore that Defendant is not responsible for the associated medical charges.

9. As Claimant has failed to prevail on his claim for benefits, he is not entitled to an award of costs and attorneyôs fees.

ORDER:

Based on the foregoing Findings of Fact and Conclusions of Law, Claimantôs claim for workersô compensation benefits referable to his 2014 hospitalization is **DENIED.**

DATED at Montpelier, Vermont this 2nd day of December, 2016.

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Anne M. Noonan
Commissioner

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.