STATE OF VERMONT
DEPARTMENT OF LABOR

Jayne Mansfield

v.

TPW Management, LLC

Opinion No. 08-17WC

By: Phyllis Phillips, Esq.
Administrative Law Judge

For: Lindsay H. Kurrle
Commissioner

State File No. EE-00487

OPINION AND ORDER

Hearing held in Montpelier on July 20, 2016
Record closed on December 8, 2016

APPEARANCES:

Christopher McVeigh, Esq., for Claimant
David Berman, Esq., for Defendant

ISSUES PRESENTED:

1. Which of the following disputed medical treatments are reasonable:

    a) Repeat epidural steroid injection;
    b) Percutaneous disc decompression;
    c) Right-sided sacroiliac joint block;
    d) Left-sided sacroiliac joint rhizotomy;
    e) Repeat lumbar facet joint blocks;
    f) Lumbar facet rhizotomies; and
    g) Hydrocodone.

2. Has Claimant reached an end medical result for her October 20, 2012 compensable work injury and, if so, as of what date?

3. If Claimant has reached an end medical result for her October 20, 2012 compensable work injury, what is the extent of her permanent partial impairment?

4. If Claimant has reached an end medical result for her October 20, 2012 compensable work injury, what is her current work capacity?

EXHIBITS:

Joint Medical Exhibit I:	Medical records
Claimantôs Exhibit 1:	Deposition of Jerry Keepers, MD, June 16, 2016
Claimantôs Exhibit 2:	Deposition of Louise Lynch, PT, September 14, 2016
Defendantôs Exhibit A:	Deposition of Nancy Binter, MD, October 6, 2016

CLAIM:

Medical benefits pursuant to 21 V.S.A. §640
Temporary disability benefits pursuant to 21 V.S.A. §642
Permanent partial disability benefits pursuant to 21 V.S.A. §648
Interest, costs and attorney fees pursuant to 21 V.S.A. §§664 and 678

FINDINGS OF FACT:

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

2. Judicial notice is taken of all forms and correspondence in the Departmentôs file relating to this claim. Judicial notice is also taken of the relevant portions of the *AMA Guides to the Evaluation of Permanent Impairment (5th ed.)* (the *"AMA Guides"*).

3. Claimant is a 59-year-old woman who has worked in the property management field in the Killington area for 18 years. She holds a bachelor of science degree in marketing and management, and an MBA in finance from Fordham University. In July 2012, she began work for Defendant as a vacation rental manager. Her duties included managing condominium rentals and homeownersôassociations. Her leisure activities included hiking, skiing and golfing. Claimant credibly reported that she did not have back pain prior to October 2012.

Claimant's Work Injury and Subsequent Medical Course

4. On October 20, 2012 Claimant went to the Killington Events Hall to set up a condominium ownersôassociation meeting. She walked up the stairs to the front door and found it locked. Because the stairs were steep, she decided to walk down the handicapped ramp instead. As she did so, her feet went out from under her and she landed hard on her back and buttocks.

5. An ambulance transported Claimant to the hospital, where she complained of excruciating pain across her lower back. Medical staff diagnosed an acute compression fracture at the L1 level of her lumbar spine and provided her with a hard-shell back brace.

6. Claimant returned to work half time about a month after her fall, but her pain was severe and she stopped working after three weeks. Aside from a brief period of project work in October 2014, she has not worked since.

7. By January 2013, Claimantôs compression fracture was healing well, but she continued to complain of low back pain. She participated in several courses of physical therapy, but her pain did not significantly lessen.

8. At Defendantôs request, in June 2013 Claimant underwent an independent medical examination with Dr. Binter, a retired neurosurgeon. Dr. Binter concluded that her compression fracture had healed and that her residual low back pain was causally related to pre-existing lumbar facet arthropathy ï degenerative arthritis in the facet joints ï aggravated either by her fall at work and/or by the back brace.

9. In May 2014 Claimant underwent an evaluation with Dr. McLellan, an occupational medicine specialist at Dartmouth Hitchcock Medical Center. Dr. McLellan concluded that in addition to compressing her L1 vertebral body when she fell, Claimant had also damaged other structures in her lumbar spine. Specifically, he diagnosed facet arthropathy, potential SI joint involvement and some spinal instability at the L4-5 level.

10. Claimant has undergone multiple courses of conservative treatment since her injury, all with the intent of controlling her pain and increasing her function. These have included two lumbar epidural steroid injections, two lumbar facet joint blocks, one sacroiliac joint block, multiple courses of physical therapy, an intensive functional restoration program and a home exercise program. None of these treatments have resulted in sustained pain relief. As additional treatment, Claimantôs current treatment provider, Dr. Keepers, has recommended a variety of injection therapies, but Defendant has denied coverage on the grounds that they are not medically necessary.

Reasonableness of Proposed Medical Treatments

11. Dr. Keepers has recommended several medical procedures, mainly injection therapies, to improve Claimantôs pain and function. As generally described below, each works somewhat differently, and depending on results, may serve both diagnostic and/or therapeutic purposes:

- A lumbar epidural steroid injection involves placing a needle into the epidural space and injecting a mixture of steroids and local anesthetic. The local anesthetic provides immediate pain relief, while the steroids bathe the nerve roots to combat swelling and inflammation.

- Percutaneous disc decompression involves placing a needle into a bulging or herniated disc and then passing a small auger-tipped instrument through it. As the shaft spins, the auger pulls disc material out, thereby shrinking it so it will not put pressure on the nerve root.

- A sacroiliac (SI) joint block is an injection of steroids mixed with local anesthetic into the sacroiliac joint. The injection may be therapeutic or diagnostic. When diagnostic, the goal is to identify a specific pain generator for further targeted treatment. One such treatment following a successful diagnostic SI joint block is a therapeutic rhizotomy.

- A lumbar facet joint block (sometimes referred to as a medial branch block), is a diagnostic procedure in which an anesthetic is injected into the nerves that supply the facet joints. As with a sacroiliac joint block, if the patientôs pain generator is successfully identified, the next step might be a therapeutic rhizotomy.

- The goal of a rhizotomy (also known as radiofrequency ablation) is to alleviate pain by inhibiting the sensory nerves from transmitting pain signals to the brain. The doctor places a special needle with an uninsulated tip into the sensory nerve and then heats the needle. The uninsulated tip burns the nerves, while the insulation on the rest of the needle protects the surrounding structures. If successful, the nerves will be destroyed, the brain will no longer receive pain signals and the patient will no longer feel pain.

Expert Medical Testimony as to Medical Necessity

12. The parties presented expert medical testimony as to the medical necessity of each of the above procedures.

(a) Dr. Keepers

13. Dr. Keepers is Claimantôs current treating physician. He is not board certified, but he has practiced anesthesiology and pain management for more than 30 years. For the past twelve years, he has limited his practice exclusively to interventional pain management.

(i) Epidural Steroid Injection and Percutaneous Disc Decompression

14. According to Dr. Keepers, a lumbar epidural steroid injection is a medically reasonable option for treating Claimantôs chronic low back pain, notwithstanding that she previously underwent two such injections with varying results. Claimant underwent the first injection in March 2013, following which she experienced one week of pain relief. In August 2015, she underwent a second injection; this one provided no pain relief, and in fact, Claimant credibly testified that her leg pain worsened thereafter.

15. In Dr. Keepersô opinion, the fact that Claimant obtained a weekôs worth of pain relief from the March 2013 injection shows that the treatment was effective, and thus justifies another injection now. If a third injection fails to generate sustained improvement, the next step in his recommended treatment course would be for her to undergo a percutaneous disc decompression to shrink any bulging or herniated discs in her lumbar spine.

16. There are disturbing gaps in Dr. Keepersô analysis. He failed to account for the fact that Claimantôs August 2015 injection provided her with no pain relief whatsoever, and thus did not explain why a third injection would likely yield a positive result when the second one did not. Similarly, he failed to explain why percutaneous disc decompression would likely be successful in relieving nerve root pain given that the August 2015 injection into the same area was ineffective. Last, although he recommended both procedures as treatment for Claimantôs ñbulging discs,ò he failed to identify any basis for this diagnosis, which conflicts with that of the other providers who have treated and/or evaluated her.[1] Dr. Keepersô failure to address these issues significantly weakens his opinion.

(ii) Joint Blocks and Rhizotomies

17. Dr. Keepers has recommended both a right-sided SI joint block and lumbar facet joint blocks as diagnostic procedures. If successful, each would be followed by therapeutic rhizotomies.

18. In evaluating whether a nerve block has been ñsuccessfulò or not, Dr. Keepers considers both the degree and duration of a patientôs pain relief. In his analysis, if a patient reports pain reduction of 50 percent or more following a nerve block, this is a positive indication that the subject area is a pain generator, and would in turn justify a rhizotomy. I find this analysis, which is based on Dr. Keepersô understanding of the medical literature[2] and his thirty yearsô experience as a practitioner of anesthesiology and pain management, reasonably well supported and credible.

19. Claimant underwent a left-sided SI joint block in August 2015, following which she reported 70 percent pain relief that lasted two days. She has never undergone a right-sided SI joint block.

20. In Dr. Keepersô analysis, for Claimant to have realized two days of pain relief following her left-sided SI block was quite significant, as the local anesthetic component of the injection would have worn off after only a few hours. Because the block was successful, in his opinion there is no reason to repeat it. With that in mind, Dr. Keepersô current treatment recommendation is for Claimant to undergo a left-sided SI joint rhizotomy. I find this analysis credible.

21. Given both Claimantôs positive response to the left-sided SI joint block and her specific complaints of right-sided pain, Dr. Keepers now recommends that she undergo a right-sided SI joint block as well and, if successful, a right-sided rhizotomy. I find this analysis credible.

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[1] Drs. Binter and McLellan both diagnosed facet arthropathy, which causes hard, bony growth into the disc space rather than soft, contained disc fragments. As discussed *infra*, Finding of Fact No. 30, the difference is significant in terms of medically reasonable treatment options.

[2] Although Dr. Keepers did not cite to any specific studies, he credibly testified that he was familiar with the medical literature and believed that it supported his approach.

22. To properly evaluate Dr. Keepersô recommendation for diagnostic lumbar facet joint blocks (and rhizotomies to follow if these prove successful), it is necessary to review Claimantôs history. Previously, she underwent bilateral facet joint blocks in June 2014, under the supervision of Dr. Dent, a pain management specialist. She reported 100 percent pain relief lasting for approximately one hour. From this, Dr. Dent concluded that her facet joints were a pain generator, and that a bilateral facet joint rhizotomy was therefore indicated.

23. Unfortunately, due to a miscommunication regarding the results Claimant had reported, Dr. Dentôs office subsequently informed her that she was not a rhizotomy candidate after all.[3] Four months later, in October 2014 the miscommunication was discovered. At that point, Dr. Dent recommended a second set of blocks to confirm the initial results, with rhizotomy to follow if they were positive.

24. Claimantôs treatment was further delayed thereafter, when she relocated to Texas. In April 2015 her new treating physician, Dr. Dorsett, also a pain management specialist, performed the confirmatory blocks that Dr. Dent had recommended. Claimant reported only 20 percent pain relief, which Dr. Dorsett did not consider successful.

25. Dr. Dorsett did not testify. When questioned about the inconsistency between his results and Dr. Dentôs, Dr. Keepers theorized that Dr. Dorsett may not have placed the needles in the correct location. Facet joint blocks are difficult to administer correctly, and therefore it is difficult to compare results when different physicians perform them. I find this analysis credible.

26. To resolve the inconsistency, Dr. Keepers now recommends that Claimant undergo a third set of facet joint blocks. As Dr. Dent had planned, if these prove successful, a facet joint rhizotomy will be the medically reasonable next step. I find this analysis credible.

(b) Dr. Binter

27. At Defendantôs request, Dr. Binter performed independent medical examinations of Claimant in 2013 and 2014. She also reviewed Claimantôs medical records and updated her reports in November 2014 and June 2016. Dr. Binter is a board-certified neurosurgeon who focused her medical practice on head trauma and spine surgery. She has retired from active practice and currently performs independent medical examinations, records reviews and permanency ratings.

28. In general, Dr. Binter recommends an aggressive, self-directed exercise course as the best treatment for Claimantôs chronic pain. She does not believe that injection therapies will significantly benefit her.

(i) Epidural Steroid Injection and Percutaneous Disc Decompression

[3] As she had been instructed to do, Claimant called the doctorôs office the day after undergoing the facet joint blocks to report her level of pain relief. However, instead of reporting her pain level *as of the time the blocks were done*, she erroneously reported her pain *as of the time of the phone call,* 24 hours later. This led Dr. Dent to amend his conclusion that the blocks had been successful, and as a result he did not schedule the rhizotomy.

29. In Dr. Binterôs opinion, there is no medically appropriate reason for Claimant to undergo a third lumbar epidural steroid injection, because the two previous ones did not result in any sustained period of pain relief. Epidural steroid injections are designed to treat nerve root pain. In Dr. Binterôs analysis, had the degenerative changes noted on Claimantôs MRI studies caused nerve root compression, the prior injections would have afforded significant pain relief. Because that did not occur, the nerve roots are likely not compressed. A third epidural steroid injection will likely be ineffective, therefore. I find this analysis credible.

30. As for percutaneous disc decompression, Dr. Binter was similarly skeptical. According to her analysis of the neurosurgical literature, this procedure yields very poor results and has been shown to be ineffective. It is particularly contraindicated in cases such as Claimantôs, whose MRI findings document a degenerative disc space rather than a soft, contained disc fragment. For these reasons, in Dr. Binterôs opinion the procedure does not constitute medically necessary treatment for Claimantôs condition. I find this analysis rational, well-explained and supported by the evidence.

(ii) Joint Blocks and Rhizotomies

31. Dr. Binter disputes the medical necessity of the right-sided SI joint block Dr. Keepers has recommended on both general and specific grounds. Generally, she believes that injection therapies have proven largely ineffective in Claimantôs case. More specifically, she did not recall that Claimant had complained of SI joint pain or dysfunction, and therefore concluded that treatment directed at that area was not indicated.

32. As to whether Claimantôs prior joint blocks have been effective or not, Dr. Binterôs criterion for determining success differs significantly from Dr. Keepersô. Whereas Dr. Keepers considers a nerve block successful if it results in at least 50 percent pain reduction, Dr. Binterôs benchmark is 75 percent or more. In support of this position, she cited a 2013 study, in which the evidence favoring the efficacy of diagnostic joint blocks was deemed ñgoodò when the patient achieved 75 to 100 percent pain relief. [4]

33. Dr. Binterôs reliance on this finding somewhat misplaced. While the study concluded that 75 percent pain relief is a ñgoodò diagnostic indicator, it does not necessarily follow that nothing less than 75 percent is acceptable. As Dr. Binter herself acknowledged, the 75 percent threshold is a guideline, not a standard of care. Its purpose is simply to assist practitioners in making evidence-based decisions in specific clinical circumstances, not to require compliance in all cases.

[4] Manchikanti, L., *et al., An Update of Comprehensive Evidence-Based Guidelines for Interventional Techniques in Chronic Spinal Pain. Part II: Guidance and Recommendations*, Pain Physician Journal 2013:16-S49-S283, Exhibit 1 to Dr. Binterôs deposition.

34. As Dr. Binter also acknowledged, pain is a complex psychosocial event. A patientôs pain assessment, and more specifically the level of pain reduction he or she realizes from a given procedure, is inherently subjective. To establish a hard and fast rule in which a nerve block is considered successful if the patient reports 75 percent pain relief, but unsuccessful if he or she reports anything less, seems fundamentally unsound. With that in mind, I do not consider persuasive the basis for Dr. Binterôs conclusion that none of Claimantôs previous SI joint blocks were successful.[5]

35. As for Dr. Binterôs assertion that there is no reason for Claimant to undergo a right-sided SI joint block because she has not complained of pain or dysfunction in that area, the medical records prove otherwise. Dr. McLellan diagnosed potential SI joint involvement in May 2014, Finding of Fact No. 9 *supra*, and following her June 2014 independent medical examination Dr. Binter herself suggested SI joint stabilization exercises.

36. Dr. Binter also disputes the medical necessity of the left-sided SI joint rhizotomy that Dr. Keepers has recommended. Again, the basis for her opinion is that Claimant reported only 70 percent pain relief from the August 2015 left-sided block rather than the 75 percent evidence-based guideline to which she would adhere. As noted above, Finding of Fact No. 34 *supra*, I find this analysis unpersuasive.

37. Dr. Binter acknowledged that there is no universally accepted ñgold standardò for diagnosing SI joint involvement as a component of a patientôs low back pain. Indeed, she characterized this area of medicine as very challenging. She has no expertise in injection therapies and has never performed an SI joint block or a rhizotomy. This gap in experience significantly weakens her opinion.

38. Regarding Claimantôs need to undergo additional facet joint blocks, with lumbar facet rhizotomy to follow if successful, Dr. Binter applied the same analysis she used to discredit the SI joint blocks ï that because the prior blocks did not meet her evidence-based threshold, they must be deemed unsuccessful. In her opinion, therefore, neither a third block nor a rhizotomy is medically necessary.

39. In fact, Claimantôs first block, in June 2014, yielded 100 percent pain relief, albeit for only a brief period. Both Dr. Dent and Dr. Keepers concluded that this result was sufficient at least to justify a confirmatory block. In contrast, Dr. Binter theorized that the positive result represented a placebo effect, and that the negative response Claimant obtained subsequently from Dr. Dorsettôs April 2015 block was likely more accurate. She did not address Dr. Keepersô alternate theory ï that Dr. Dorsett likely failed to administer the block correctly. Given Dr. Keepersô extensive hands-on experience with injection therapies, I am inclined to accept his theory as more credible than Dr. Binterôs.

Reasonableness of Ongoing Use of Hydrocodone as Treatment for Claimant's Chronic Pain

[5] Dr. Dorsett appears to have applied a similarly rigid standard in his practice. He determined that Claimantôs August 2015 left-sided SI joint block was unsuccessful because she reported only 70 percent pain reduction, which fell short of his 80 percent benchmark. In contrast, in concluding that the joint block yielded diagnostically significant results, Dr. Keepers focused not only on the extent of pain relief, but also its duration. *See* Finding of Fact No. 20 *supra*.

40. Claimant was prescribed an opioid pain medication immediately after her October 2012 work injury, but within months she replaced it with over-the-counter medications. Between September 2013 and October 2014, she did not routinely use opioid pain medications as treatment for her chronic pain.[6]

41. In late 2014, Claimant moved to Texas and began treating with Dr. Dorsett. He prescribed hydrocodone, an opioid pain medication, for pain flares. In November 2015, she transferred her care to Dr. Keepers, who prescribed 7.5 milligrams of hydrocodone three times a day for her chronic pain complaints. One month later, he increased her dosage to 10 milligrams three times a day.

42. Currently Claimant uses hydrocodone daily. She takes her first dose in the morning, before she gets out of bed. Even with that, she is unable to get up and dress herself until several hours later, and even then, she cannot engage in a daily activity for more than two hours before she needs to lie down again. I find from this description of Claimantôs daily routine that she no longer achieves satisfactory pain control with hydrocodone.

43. Although he continues to prescribe it, Dr. Keepers has offered no explanation as to why hydrocodone is a reasonable treatment option for Claimantôs chronic pain complaints, given the limited relief it affords her.

44. Dr. Binter credibly testified that opioid pain medications have proven ineffective in treating chronic musculoskeletal pain. In fact, long-term use can cause hypersensitivity, which worsens rather than alleviates the patientôs pain symptoms. For that reason, in Dr. Binterôs opinion Claimantôs ongoing use of hydrocodone is not medically indicated. She recommends that Claimant immediately embark on a four to six week tapering course, with the goal of discontinuing it completely. I find this analysis persuasive.

End Medical Result

45. The parties presented conflicting medical testimony regarding whether Claimant has reached an end medical result for her work-related injury. Both Dr. Dent and Dr. Keepers believe that until Claimant is either determined to be an inappropriate rhizotomy candidate (following unsuccessful facet and/or SI joint nerve blocks) or undergoes the procedures (following successful nerve blocks), the prospect of significant improvement, in both pain and function, remains reasonable.

46. To the extent she believes them to be efficacious at all, in Dr. Binterôs opinion rhizotomies offer only palliative, not curative, relief of symptoms, because they do not alter the underlying degenerative pathology in Claimantôs lumbar spine. In her analysis, Claimant had reached an end medical result at least as of November 2014, after reaching a ñclinical plateauò in an intensive functional restoration program she had entered earlier that fall.

[6] In preparation for her move from Vermont to Texas in the fall of 2014, Dr. Dent prescribed three hydrocodone tablets for her to take while traveling, with no refills. Aside from this limited instance, the medical records do not reflect any other opioid use or prescriptions between September 2013 and October 2014.

47. With Dr. Binterôs end medical result determination as support, Defendant sought to terminate Claimantôs temporary disability benefits. The Department approved the discontinuance effective November 22, 2014.

Extent of Permanent Impairment

48. The parties presented conflicting medical testimony regarding the extent of Claimantôs permanent impairment.

(a) Dr. Davignon

49. At her own referral, Claimant underwent an independent medical examination with Dr. Davignon, a certified independent medical examiner, in September 2015. Dr. Davignon maintains a private practice consisting of independent medical examinations, medical records reviews and permanency ratings. He personally examined Claimant, reviewed her medical records, elicited a medical history and responded to questions that her attorney posed to him.

50. Based on his evaluation, Dr. Davignon assessed Claimant with a 20 percent whole person permanent impairment referable to her October 2012 work injury. His calculation was derived as follows:

- For Claimantôs L1 compression fracture, Dr. Davignon examined her most recent, June 2014 radiograph. Using the computer image, he compared the height of the compressed L1 vertebra with that of a normal vertebra to determine the extent of the compression deformity, which he calculated as 64 percent. According to the *AMA Guides*, this placed Claimant in DRE Lumbar Category IV.

- DRE Category IV allows for a range of impairment from 20 to 23 percent, depending on whether the injury results in residual neurologic compromise such as motor deficits. Having observed no evidence of this on examination, Dr. Davignon assessed a 20 percent impairment. I find this analysis credible.

51. Dr. Davignon did not calculate an impairment rating referable specifically to Claimantôs facet arthropathy, which both Dr. Binter and Dr. McLellan had diagnosed separate from her compression fracture, *see* Finding of Fact Nos. 8 and 9, *supra*.

(b) Dr. Binter

52. Dr. Binter used a different analysis. Her calculations were derived as follows:

- For Claimantôs L1 compression fracture, Dr. Binter relied on the radiologistôs report of the imaging study taken on the day of the injury, in which the degree of compression was measured at 25 percent. Under the *AMA Guides*, this placed her in DRE Lumbar Category III, which provides for a whole person impairment range of ten to 13 percent. Because the

fracture was not limiting Claimantôs activities, Dr. Binter assessed a ten percent impairment.

- For Claimantôs facet arthropathy, Dr. Binter assessed a seven percent whole person impairment, based on her complaints of radicular pain without objective findings. This placed her in DRE Lumbar Category II, which provides for a whole person impairment range of five to eight percent.

- Dr. Binter used the *AMA Guides'* Combined Values Chart to combine the two ratings, for a total of 16 percent whole person permanent impairment.

53. The expert opinions thus differ in two important respects ï first, as to the appropriate method for measuring the degree of the compression deformity caused by Claimantôs fracture, and second, as to whether the sequelae of Claimantôs work-related injury should be rated as one impairment or two.

54. As to the first issue, the *AMA Guides* do not specify how best to measure the degree of compression for the purposes of assigning a DRE Category. Dr. Davignon credibly testified as to his methodology, and I find no reason to doubt his results. Notably, furthermore, for his analysis Dr. Davignon used the most recent radiograph, taken almost two years post-injury, whereas Dr. Binter used the earliest one, taken on the day of her injury. Compression fractures typically ñsettleò over time before ultimately plateauing. Measurements taken immediately after the injury likely will not accurately reflect the patientôs permanent status, therefore. For that reason, I find Dr. Davignonôs analysis particularly persuasive, and Dr. Binterôs far less so. [7]

55. As to the second difference in the expertsô rating methodology ï whether to rate Claimantôs facet arthropathy separately from her compression fracture ï Dr. Binterôs analysis comported with the *AMA Guides'* instruction, whereas Dr. Davignonôs did not. Specifically, the *AMA Guides* direct that in the case of two ñsignificant yet unrelated conditions,ò the total impairment should be calculated exactly as Dr. Binter did ï by rating each condition separately and then combining them accordingly. *AMA Guides* §2.5b at p. 19.

Claimant's Current Status and Work Capacity

56. Claimant has not worked full time since her October 2012 injury. In September 2014 she completed a functional restoration program, following which she met with Dr. Hazard, the program director. In October 2014 Dr. Hazard released her to part-time work ï a maximum of three hours per day, three days per week ï with restrictions against lifting more than five pounds frequently or fifteen pounds occasionally, and with the requirement that she have an opportunity to change positions every fifteen to twenty minutes.

[7] In her testimony, Dr. Binter asserted that even accounting for post-injury settling, the degree of compression likely would not have exceeded 50 percent, and therefore would have fit within the 25 to 50 percent range covered by DRE Category III in any event. I find this analysis speculative and imprecise.

57. Also in October 2014, Claimant began working part time for her former boss on a proposal for a ski area in China. In accordance with Dr. Hazardôs restrictions, she arranged her day into 45-minute work periods, each separated by a 30-minute break to lie down, for a total of three hours per day, three days per week. Claimant continued with the project for a few weeks after moving to Texas in late 2014. She stopped working because the Chinese economy made the project unfeasible, and not for any reason related to her work capacity.

58. Claimant has been working with a vocational rehabilitation counselor to identify suitable employment opportunities within Dr. Hazardôs functional restrictions. As of the hearing date, she remains unemployed.

59. On a typical day, Claimant does one primary activity, whether grocery shopping, reviewing internet job listings, doing laundry or attending a gentle yoga class, between 10:00 AM and noon. The remainder of the day she spends resting. She cooks her own simple meals, but has hired help for house cleaning and lawn mowing.

60. The parties presented conflicting expert testimony regarding Claimantôs current work capacity.

(a) *Louise Lynch, PT*

61. At her attorneyôs request, in September 2015 Claimant underwent a functional capacity evaluation (FCE) with Louise Lynch, P.T. Ms. Lynch holds a bachelor of science degree in physical therapy and is a certified work capacity evaluator. Her background includes experience in both orthopedic manual physical therapy and industrial rehabilitation. She has expertise in several FCE methods, including Matheson, in which she is certified, and she has conducted training sessions and seminars for others on that system as well.

62. In the course of her evaluation, Ms. Lynch interviewed Claimant, reviewed her extensive medical records, administered standardized testing, including embedded tests for consistency of effort, and generally observed her demeanor. Following the evaluation, she contacted Claimant to ascertain her post-testing pain levels.

63. Ms. Lynch concluded that Claimant exerted high levels of physical effort during the testing, that her results were reliable and that her reported pain levels were consistent both with her demonstrated movement patterns and with her diagnosis. I find this analysis credible.

64. Considering Claimantôs strength, positional tolerance and sustainability of effort, in Ms. Lynchôs opinion she is best suited for part-time sedentary work, to a maximum of two hours per day on an every-other-day basis. The work must allow for self-pacing and frequent position changes for up to two hours at a time.

65. Ms. Lynch acknowledged that Claimant is capable of lifting up to twenty pounds, and can carry up to fifteen pounds, both of which suggest a light duty work capacity. However, she cannot sustain this level of activity safely and comfortably. Ms. Lynch explained:

> [S]he has strength, but she doesnôt have muscular endurance to be able to sustain that level. She also had a fracture at L1 . . . [and] degenerative deterioration in her spine and . . . stenosis. Both of those are going to be worsened by an increase[e] in force with the back muscles. So when you start lifting over ten pounds your back muscles have to compress the spine to be able to do so . . . Twenty pounds is going to increase the functional use of her paraspinals that are going to create compression on a documented injury. I didnôt feel . . . that she would be able to sustain that.

66. According to Ms. Lynchôs analysis, Claimantôs greatest limitation is her positional tolerance; she cannot maintain a seated work posture for more than15 minutes. In Ms. Lynchôs experience, sedentary work requires a person to have at least a two-hour tolerance for functional sitting, that is, being able to sit in a chair so that oneôs arms are free to work. Claimantôs functional tolerance is complicated by her medical condition ï sitting relieves her spinal stenosis symptoms, but aggravates the symptoms referable to her degenerative spine disease. As a result, she frequently must use her arms to support her body weight, by pushing them against a chair, a desk or her knees while sitting, for example. Thus, her ability to perform even sedentary work is quite limited. I find this analysis credible in all respects.

(b) Steven Sopher, PT

67. At the request of her vocational rehabilitation case manager, in October 2015 Claimant underwent an FCE with Steven Sopher, PT. Mr. Sopher holds a master of science degree in physical therapy and has trained in performing FCEs. He does not adhere to a specific evaluation method, but rather uses his own ñhybridò system. Mr. Sopher currently performs five or six evaluations per month.

68. Consistent with his general process, in conducting his FCE Mr. Sopher interviewed Claimant, reviewed a progress note from her treating physician, Dr. Dorsett, and assessed her physical function through a series of tests.

69. Based on his evaluation, Mr. Sopher concluded that Claimant is currently functioning at a light physical demand level, defined as the ability to lift up to ten pounds frequently and up to twenty pounds infrequently. He also found that she can walk, bend, stoop and reach. Accordingly, he concluded that she is able to perform full-time light duty work.

70. Notably, while evaluating Claimantôs lifting capacity, Mr. Sopher reported that she terminated several tests before reaching her maximal muscle recruitment and with only minimal to moderate changes in her heart rate. From this he concluded that she was self-limiting her functional capacity.

71. Ms. Lynch disputed this finding. In her analysis, it was incorrect for Mr. Sopher to use lifting tasks to evaluate Claimantôs effort. By compressing the spine, such tasks would have been both painful and unsafe for her. The better practice would have been to evaluate her effort on tasks that did not impact the injured body area. I find this analysis credible.

72. Mr. Sopherôs conclusion regarding Claimantôs sitting tolerance is also suspect. He determined that she could sit for 30 minutes, but failed to measure the extent to which she had to use her arms to support her weight during that period. And while he noted that she suffers from spinal stenosis, the symptoms of which are relieved by sitting, he did not consider that she also suffers from degenerative disc and spine conditions, which are aggravated by sitting.

73. There are other disturbing gaps in Mr. Sopherôs analysis. Although he concluded that Claimant was capable of performing full-time light duty work, he failed to consider the extent to which her lifting capacity was sustainable throughout a work day. More generally, he did not adequately justify his use of a hybrid methodology as opposed to a more widely accepted process that has been tested for both reliability and validity of results. These omissions significantly weaken his opinions.

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 v. Holden Lumber Co.*, 112 Vt. 17 (1941); *Morse v. John E. Russell Corp.*, Opinion No. 40-92WC (May 7, 1993).

2. The disputed issues here involve the reasonableness of various medical treatments. Determinations as to end medical result, permanent impairment and work capacity are also disputed. The parties presented conflicting expert medical testimony on each of these issues. 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).

Reasonableness of Proposed Medical Treatments

3. Vermontôs workersô compensation statute obligates an employer to furnish ñreasonableò medical services and supplies to an employee who has suffered a compensable work-related injury. 21 V.S.A. §640(a). The Commissioner has discretion to determine what constitutes ñreasonableò medical treatment given the particular circumstances of each case. *MacAskill v. Kelly Services*, Opinion No. 04-09WC (January 30, 2009). A treatment can be unreasonable either because it is not medically necessary or because it is not related to the compensable injury. *Baraw v. F.R. Lafayette, Inc*., Opinion No. 01-10WC (January 20, 2010); *Brodeur v. Energizer Battery Manufacturing, Inc.,* Opinion No. 06-14WC (April 2, 2014).

4. Unless the employer is seeking to discontinue a previously accepted medical treatment, the claimant has the burden of proving that a proposed medical treatment is reasonable under 21 V.S.A. §640(a). *Merriam v. Bennington Convalescent Center*, Opinion No. 55-06 (January 2, 2007); *Baraw, supra*. In determining what is reasonable, the decisive factor is not what the claimant desires but what is shown by competent expert evidence to be reasonable. *Id.*

5. The partiesô experts approached the disputed medical treatments in this case from widely divergent points of view. As an anesthesiologist and pain management specialist, Claimantôs treating physician, Dr. Keepers, has extensive experience treating patients with the injection therapies he has proposed. In contrast, although Dr.Binter is familiar with the medical literature, in her neurosurgery practice she was never called upon to administer a course of injection therapy to her patients. Considering the *Geiger* factors noted above, Conclusion of Law No. 2 *supra*, I acknowledge generally that Dr. Keepersô training and experience render his opinions somewhat more persuasive than Dr. Binterôs. *See, e.g., Brodeur, supra.* Nevertheless, to determine the reasonableness of each of the disputed procedures, I must closely examine both expertsô opinions for clarity, thoroughness and objective support as well.

(a) Epidural Steroid Injection and Percutaneous Disc Decompression

6. As to the reasonableness of another epidural steroid injection and, if ineffective, a percutaneous disc decompression to follow, I conclude that Dr. Binterôs opinion is the most persuasive. Given that two prior epidural steroid injections had failed to provide any sustained period of pain relief, she credibly questioned the logic of presuming that a third one would likely succeed. In addition, based both on her review of the medical literature and on Claimantôs MRI findings, which documented a degenerative disc space rather than a soft contained disc fragment, she credibly concluded that percutaneous disc decompression was contraindicated and would likely be ineffective.

7. Dr. Keepers failed to adequately address the concerns that Dr. Binter raised. Although his stated rationale for performing both procedures was to treat Claimantôs ñbulging discs,ò he failed to identify any MRI findings or other objective support for that diagnosis. I am particularly troubled by his lack of clarity in that regard, and for that reason I cannot accept his opinion as credible.

8. I conclude from the credible evidence that it is not medically necessary, and therefore not reasonable, for Claimant to undergo another epidural steroid injection and possible percutaneous disc decompression as treatment for her compensable work-related injury.

(b) Joint Blocks and Rhizotomies

9. As to the reasonableness of a right-sided SI joint block and a left-side SI joint rhizotomy, I conclude that Dr. Keepersô opinion is the most persuasive. His analysis of the extent to which Claimantôs prior, left-sided SI joint block had been successful, which considered both the extent and the duration of her pain relief, was clear and thorough. His opinion was further buttressed by his training and experience as a pain management specialist, as well as his review of the medical literature.

10. Dr. Binterôs analysis was based on her strict adherence to a 75 percent pain relief benchmark for determining whether Claimantôs prior joint block had been successful, a position I have found unpersuasive.

11. I conclude from the more credible evidence that Dr. Keepersô SI joint treatment plan, consisting of a left-sided SI joint rhizotomy, a right-sided SI joint block, and if successful, a right-sided SI joint rhizotomy, constitutes reasonable medical treatment for Claimantôs work-related injury.

12. As to the reasonableness of the proposed lumbar facet joint blocks and rhizotomy, I conclude as well that Dr. Keepersô analysis is more persuasive than Dr. Binterôs. Dr. Keepers thoroughly explained his theory that Dr. Dorsett may have administered Claimantôs second set of joint blocks improperly, and why it is therefore necessary to administer a third set. Essentially, his treatment plan seeks to complete the regimen that Dr. Dent undertook in 2014, a goal that is as reasonable now as it was then.

13. Dr. Binterôs analysis as to the necessity for facet joint blocks stands on the same footing as her analysis of the need for SI joint blocks, and for the same reasons, I find it unpersuasive.

14. I conclude from the more credible evidence that Dr. Keepersô lumbar facet joint treatment plan, consisting of a third set of facet joint blocks, followed by a facet joint rhizotomy if successful, constitutes reasonable medical treatment for Claimantôs work-related injury.

(c) Hydrocodone

15. Claimant has been using hydrocodone since late 2014. According to her own testimony, the pain relief she derives from it has not translated into significantly increased function. Dr. Keepers, her current prescriber, did not offer a specific rationale for its continued use.

16. In contrast, Dr. Binter offered a clear and concise rationale for immediately tapering and then discontinuing the medication. I accept her opinion as credible, and therefore conclude that Claimantôs continued use is not medically necessary and does not constitute reasonable medical treatment. [8]

End Medical Result

17. Claimant seeks a determination that she is not at an end medical result and is therefore entitled to ongoing temporary disability benefits retroactive to November 22, 2014, the effective date of Defendantôs discontinuance. Defendant bears the burden of proof on this issue. *Merrill v. University of Vermont*, 133 Vt. 101, 105 (1974); *Baraw, supra*.

18. End medical result is defined as ñthe point at which a person has reached a substantial plateau in the medical recovery process, such that significant further improvement is not expected, regardless of treatment.ò Workersô Compensation Rule 2.2000. *Coburn v. Frank Dodge & Sons*, 165 Vt. 529, 533 (1996).

19. The date of end medical result marks an important turning point in an injured workerôs progress, both medically and legally. Medically, it signals a shift in treatment from curative interventions, the goal of which is to ñdiagnose, heal or permanently alleviate or eliminate a medical condition,ò to palliative ones, which aim instead to ñreduce or moderate temporarily the intensity of an otherwise stable medical condition.ò Workersô Compensation Rule 2.3400.

20. Legally, because temporary disability benefits are only payable ñfor so long as the medical recovery process is ongoing,ò once an injured worker reaches an end medical result his or her entitlement to temporary indemnity benefits ends, and the focus shifts instead to consideration of permanent disability. *Bishop v. Town of Barre*, 140 Vt. 564, 571 (1982).

21. The Vermont Supreme Court has defined the proper test for determining end medical result as ñwhether the treatment contemplated at the time it was given was reasonably expected to bring about significant medical improvement.ò *Brace v. Vergennes Auto, Inc.*, 2009 VT 49 at ¶11, citing *Coburn, supra* at 533. In *Brace*, the Court approved the trial courtôs determination that the claimant had not yet reached an end medical result because her referral to a rehabilitation and pain management clinic had the potential to improve her overall function, and in fact did so, in terms of both range of motion and ability to engage in activities and tasks. *Id.* at ¶13.

[8] Workersô Compensation Rule 12.1730, which became effective November 1, 2016, establishes a rebuttable presumption that unless an opioid medication is prescribed in accordance with ñbest practices,ò it does not constitute reasonable medical treatment. Because the specific prescriptions at issue in this case were written prior to the effective date, the rule itself is not applicable here. However, the rationale underlying both the rule and the statute upon which it is based ï ñto protect employees from the dangers of prescription drug abuse while maintaining a balance between the employeeôs health and the employeeôs expedient return to work,ò 21 V.S.A. §640c(a) ï was as critical a concern prior to the ruleôs promulgation as after.

22. In cases decided since *Brace*, the Commissioner has ruled that a defined course of treatment that (a) offers long-term symptom relief rather than just a temporary reprieve; and (b) is reasonably expected to provide significant functional improvement can, in appropriate circumstances, negate a finding of end medical result. *Marsh v. Koffee Kup Bakery, Inc.*, Opinion No. 15-15WC (July 6, 2015) (pain management treatment); *Luff v. Rent Way*, Opinion No. 07-10WC (February 16, 2010) (trial implantation of spinal cord stimulator); *Cochran v. Northeast Kingdom Human Services*, Opinion No. 31-09WC (August 12, 2009) (participation in functional restoration program). Interpreting the concept of the ñmedical recovery process,ò *Bishop, supra*, in this way is in keeping with the benevolent objectives and remedial nature of Vermontôs workersô compensation law. *Luff, supra*, citing *Montgomery v. Brinver Corp.*, 142 Vt. 461, 463 (1983).

23. Having concluded in this case that the joint blocks and, if successful, rhizotomies to follow are reasonable, I must now decide whether they are properly characterized as palliative or curative. On this issue, I conclude that Dr. Keepersô opinion is the most persuasive. His extensive clinical experience as a pain management specialist is particularly relevant. More important, the course of treatment he has proposed is discrete and finite, with the potential for longer lasting pain control that, if successful, will likely afford Claimant significantly increased function. This is sufficient to bring it within the ambit of what the *Brace* court described as ñsignificant medical improvement,ò and therefore curative in nature.

24. Although medically accurate, Dr. Binterôs assertion that joint blocks and rhizotomies do nothing to alter the underlying degenerative pathology in Claimantôs spine is unduly rigid. Indeed, by destroying the sensory nerves that transmit pain signals to the brain, a rhizotomy does in fact alter the patientôs anatomy. The more salient point, however, is that by doing so it offers the prospect of longer term pain relief than, for example, indefinite courses of chiropractic treatment would, *see Coburn, supra*.

25. I conclude that the joint blocks and rhizotomies Dr. Keepers has proposed are curative in nature, and therefore negate a finding of end medical result. Claimant is thus entitled to a resumption of temporary disability benefits retroactive to the date they were discontinued, November 22, 2014, and ongoing until she either reaches an end medical result or successfully returns to work.

Extent of Permanent Impairment

26. Having concluded that Claimant has not yet reached an end medical result, it is premature to rule on the extent of her permanent impairment. In keeping with Finding of Fact No. 53 *supra*, I note only that to the extent that Dr. Davignon based his calculation of the degree of compression deformity caused by Claimantôs fracture on the most recent radiograph, whereas Dr. Binter used the earliest one, I consider Dr. Davignonôs analysis more precise and therefore more persuasive. On the other hand, in keeping with Finding of Fact No. 54 *supra*, to the extent that Dr. Binter determined Claimantôs total impairment by separately rating her compression fracture and her facet arthropathy, whereas Dr. Davignon rated only the fracture, I consider Dr. Binterôs analysis more consistent with the *AMA Guides* and therefore more persuasive.

Work Capacity

27. Given the possibility of further functional improvement with Dr. Keepersô proposed treatment course, it is also premature to rule on the extent of Claimantôs work capacity. In keeping with Finding of Fact Nos. 68-72 *supra,* I note only that to the extent Mr. Sopherôs FCE analysis was based solely on her lifting capacity, and thus failed to consider either positional tolerance or sustainability of effort, I consider it far less credible than Ms. Lynchôs. That Ms. Lynch employed a generally accepted FCE methodology that has been tested for both reliability and validity, whereas Mr. Sopher used a ñhybridò of his own making, Finding of Fact No. 72 *supra*, lends further support to her opinions and detracts from his.

Summary

28. To summarize, I conclude that Claimant has failed to sustain her burden of proving that the following treatments are medically necessary and therefore reasonable:

- Repeat lumbar epidural steroid injection;
- Percutaneous disc decompression; and
- Following a reasonable taper period, continued use of hydrocodone as treatment for her chronic pain.

29. I conclude that Claimant has sustained her burden of proving that the following treatments are medically necessary and therefore reasonable:

- Right-sided SI joint block and, if successful, right-sided SI joint rhizotomy;
- Left-sided SI joint rhizotomy; and
- Repeat lumbar facet joint blocks and, if successful, lumbar facet rhizotomies.

30. I further conclude that Claimant has not yet reached an end medical result and is therefore entitled to a resumption of temporary disability benefits retroactive to the date Defendant discontinued them, November 22, 2014.

31. As Claimant has prevailed on some aspects of her claim, she is entitled to an award of only those costs that relate directly thereto. *Hatin v. Our Lady of Providence*, Opinion No. 21S-03 (October 22, 2003), citing *Brown v. Whiting*, Opinion No. 07-97WC (June 13, 1997). As for attorney fees, in cases where a claimant has partially prevailed, the Commissioner typically exercises her discretion to award fees commensurate with the extent of the claimantôs success. Subject to these limitations, in accordance with 21 V.S.A. §678 Claimant shall have 30 days from the date of this opinion within which to submit her itemized request. Defendant shall have 30 days thereafter within which to file any objections thereto.

ORDER:

Based on the foregoing findings of fact and conclusions of law, Defendant is hereby **ORDERED** to pay:

1. Medical benefits covering all reasonable medical services and supplies as outlined in Conclusion of Law No. 29 above, and including a safe taper plan for discontinuing Claimantôs use of hydrocodone, in accordance with 21 V.S.A. §640(a) and Workersô Compensation Rule 12.1720;

2. Temporary total disability benefits retroactive to the date of discontinuance, November 22, 2014, with interest as calculated in accordance with 21 V.S.A. §664, and ongoing until properly discontinued in accordance with 21 V.S.A. §643a and Workersô Compensation Rule 12.0000; and

3. Costs and attorney fees in amounts to be determined, in accordance with 21 V.S.A. §678.

DATED at Montpelier, Vermont this 8th day of May 2017.

_____
Lindsay H. Kurrle
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.