CASEREVIEW
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May 18, 2018

**DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:**
XX (XXX) L5/S1 level medial branch of the dorsal ramus bilaterally x 1.

**A DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION:**
This physician is a Board Certified Orthopedic Surgeon with over 16 years of experience.

**REVIEW OUTCOME:**
Upon independent review, the reviewer finds that the previous adverse determination/adverse determinations should be:

☒ Upheld (Agree)

Provide a description of the review outcome that clearly states whether medical necessity exists for each of the health care services in dispute.

**PATIENT CLINICAL HISTORY [SUMMARY]:**
The claimant is a XXXX year old XXXX who was injured on XXXX while XXXX. XXXX felt immediately lower back pain when XXXX came back up to a normal standing position. XXXX did have X-rays and physical therapy which was of minimal help.

On XXXX, MRI Lumbar Spine, Impression: Normal MRI of Lumbosacral Spine.

On XXXX, the claimant presented to XXXX with lower back pain rated a 7/10. On examination XXXX ROM remained the same. Tenderness and muscle spasm remained the same. Deep tendon reflexes were normal. Sensation was decreased on the left nerve root distribution. Sitting SLR on the right was negative, positive on the left. Diagnosis: Sprain of ligaments of lumbar spine. Recommendations: 1. No physical therapy. 2. Medication: XX 400 mg, XX 10 mg. 3. Follow-up with primary care doctor. 4. Cont HEP. 5. Refer to pain management for possible SI/trigger point injection for the pain. 6. Moist heat. 7. Referral to the ESI.

On XXXX, the claimant presented to XXXX, MD for low back pain that radiates. Pain level rated 7-9/10. XXXX was able to stand, sit, and walk for less than 30 minutes. Pain described as constant throbbing, shooting pain and pinching. Medication and rest helps. Pain made worse by sitting, standing, walking. The claimant was currently not working. On examination toe and heel walking was good. Deep tendon reflexes were intact. Facet pain on spine rotation/extension/flexion and palpation and axial loading in the lumbar spine. Pain in the lumbar facets bilaterally at the L5/S1. Plan: Lumbar facet block L5/S1 level.

On XXXX, the claimant presented to XXXX for XXXX.

On XXXX, the claimant presented to XXXX with improvement of overall pain by 70%. After the lumbar medial branch facet blocks XXXX was able to stand longer, sit longer, walk, longer, and sleep better. XXXX pain returned and XXXX was requesting an additional injection. No significant changes in the physical exam since the last office visit. Plan: Radiofrequency neurolysis/ablation (RFA) L5/S1 Level. Followed by physical therapy.

On XXXX, XXXX performed a UR. Rationale for Denial: As per ODG, "Under study. Conflicting evidence is available as to the efficacy of this procedure, and approval of treatment should be made on a case-by-case basis (only 3 RCTs with one suggesting pain benefit without functional gains, potential benefit if used to reduce narcotics)." The injured worker notes lower back pain. The pain radiates. The medial branch facet block is noted to have relieved the pain by 70%. XXXX was able to sit, stand, and walk longer. XXXX was able to sleep better. However, there are no recent objective findings provided post injection. The MRI done does not corroborate pathology. Therefore, this request is no medically reasonable and necessary, at this time and non-certified.

On XXXX, the claimant presented to XXXX with continued low back pain. RFA L5/S1 bilaterally still recommended.

On XXXX, XXXX performed a UR. Rationale for Denial: The ODG notes that radiofrequency neurotomy is under study and notes that conflicting evidence is available as to the efficacy of the procedure and approval of treatment should be made on a case-by-case basis. The ODG notes that while repeat neurotomies may be required, they should not occur at an interval of less than six months from the first procedure and thee should be documented pain relief for at least 12 weeks at greater than or equal to 50% relief. The provided documentation indicates 70% symptom improvement following a radiofrequency ablation on XXXX, but the symptom relief lasted less than four weeks. Based on the provided documentation and the ODG recommendation, the radiofrequency neurolysis/ablation (RFA) L5/S1 level medial branch of the dorsal ramus bilaterally is not medically necessary.

**ANALYSIS AND EXPLANATION OF THE DECISION INCLUDE CLINICAL BASIS, FINDINGS, AND CONCLUSIONS USED TO SUPPORT THE DECISION:**
The request for L5-S1 neurolysis/ablation is not found to be medically necessary and therefore is denied.

This patient injured XXXX lower back at work in XXXX. The XXXX MRI of the lumbar spine was read as normal. Following a lumbar facet block at L5-S1, the patient had significant pain relief (70%) on a temporary basis. The treating physician recommended a radiofrequency neurolysis/ablation at L5-S1.

The Official Disability Guidelines (ODG) documents conflicting evidence in support of facet joint radiofrequency neurotomy. This procedure may be appropriate for a patient with facet joint pain. The procedure is most commonly performed to relieve pain associated with facet joint arthritis. Risks of this procedure include cutaneous dysesthesias, increased pain due to neuritis or neurogenic inflammation, and cutaneous hyperesthesia.

It is unclear whether this patient truly has facet joint pain. The lumbar MRI of this XXXX year-old XXXX identified no pathology at L5-S1 that would correlate with facet-mediated pain. This MRI study did not reveal a pain generator associated with the XXXX work injury. Based on the records reviewed, there is little evidence to support permanent ablation of nerves around the facet joints of L5-S1.

**PER ODG:**

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| Facet joint radiofrequency neurotomy | Under study. Conflicting evidence is available as to the efficacy of this procedure, and approval of treatment should be made on a case-by-case basis (only 3 RCTs with one suggesting pain benefit without functional gains, potential benefit if used to reduce narcotics).<br><br>See Facet joint diagnostic blocks (injections); Facet joint pain, signs & symptoms; Facet joint medial branch blocks (therapeutic injections); and Facet joint intra-articular injections (therapeutic blocks). See also the Neck Chapter and Pain Chapter.<br><br>**Criteria for use of facet joint radiofrequency neurotomy:**<br>(1) Treatment requires a diagnosis of facet joint pain using a medial branch block as described above. See Facet joint diagnostic blocks (injections).<br>(2) While repeat neurotomies may be required, they should not occur at an interval of less than 6 months from the first procedure. A neurotomy should not be repeated unless duration of relief from the first procedure is documented for at least 12 weeks at ≥ 50% relief. The current literature does not support that the procedure is successful without sustained pain relief (generally of at least 6 months duration). No more than 3 procedures should be performed over the course of a year.<br>(3) Approval of repeat neurotomies depends on variables such as evidence of adequate diagnostic blocks, documented improvement in VAS score, decreased medications and documented improvement in function.<br>(4) No more than two joint levels are to be performed at one time.<br>(5) If different regions require neural blockade, these should be performed at intervals of no sooner than one week, and preferably 2 weeks for most blocks.<br>(6) There should be evidence of a formal plan of additional evidence-based conservative care in addition to facet joint therapy.<br><br>Studies have not demonstrated improved function. Also called Facet rhizotomy, Radiofrequency medial branch neurotomy, or Radiofrequency ablation (RFA), this is a type of injection procedure in which a heat lesion is created on specific nerves to interrupt pain signals to the brain, with a medial branch neurotomy affecting the nerves carrying pain from the facet joints.<br><br>*Current research:* Multiple placebo-controlled trials have been completed on this topic, but these studies all had potential clinical methodologic flaws including the use of non-controlled diagnostic blocks and potential discrepancies in technique of lesioning from that which is currently recommended. (Hooten, 2005) (van Kleef, 1999) (Boswell, 2005) (Leclaire, 2001) (Van Kleef, 1999) (Gallagher, 1994) (van Wijk, 2005) A recent small RCT found that the percutaneous radiofrequency neurotomy treatment group showed statistically significant improvement not only in back and leg pain but also back and hip movement as well as the sacroiliac joint test. There was significant improvement in quality of life variables, global perception of improvement, and generalized pain. But RF neurotomy was not a total treatment, and it provided relief for only one component of the patients' pain. (Nath, 2008) *Observational Trials:* One observational trial found 60% of patients received 90% relief at 12 months and 87% had 60% pain relief. The authors used confirmatory blocks with 80% pain relief. (Dreyfuss, 2000) Clinical audits have reported pain relief in almost 70% of patients at 6 months. (Gofeld, 2007) Among the top 5 tests and therapies that are of questionable usefulness in the field of pain medicine, as prepared by the American Society of Anesthesiologists (ASA) and the American Pain Society (APS) is to avoid irreversible interventions for noncancer pain, such as peripheral chemical neurolytic blocks or peripheral radiofrequency ablation, because such interventions may be costly and carry significant long-term risks of weakness, numbness, or increased pain. (ASA, 2014)<br><br>*Systematic reviews:* When compiled into systematic reviews, the evidence has been found to be conflicting for a short-term effect (Niemisto-*Cochrane*, 2003) (Niemisto-Cochrane, 2006) and |

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| | moderate to strong for a long-term effect when compared to a placebo. (Geurts, 2001) (Boswell, 2005) The latter systematic review failed to distinguish results between lumbar and cervical patients. A critical nonsystematic review by Slipman et al. reported "sparse evidence" to support use in the lumbar region (Slipman, 2003) and the ICSI did not feel the current scientific evidence allowed for a conclusion on the subject. (ICSI, 2005) Boswell et al. have recently published a systematic review that included several new observational studies that came to the conclusion that the evidence for neurotomy was moderate (Level III) for long-term relief of cervical and lumbar facet joint pain. This conclusion was based on the standard techniques used in the United States. (Boswell2, 2007) Interventional strategies, such as prolotherapy, botulinum toxin injections, radiofrequency denervation, and intradiscal electrothermal therapy, are not supported by convincing, consistent evidence of benefit from randomized trials. (Chou, 2008)<br><br>*Technique:* There are several techniques. (Gofeld2, 2007) The North American technique uses tangential insertion of a curve-tipped cannula parallel to the nerves. There is a long learning curve and results vary among operators. The European technique relies on radiologic appearance. Potential technical flaws include inadequate exposure of the tip to the target nerve and generation of a lesion that is too small to ablate the nerve. There is also an Australian technique.<br><br>*Factors associated with failed treatment:* These include increased pain with hyperextension and axial rotation (facet loading), longer duration of pain and disability, significant opioid dependence, and history of back surgery.<br>*Factors associated with success:* Pain above the knee (upper leg or groin); paraspinal tenderness. (Cohen2, 2007)<br><br>*Duration of pain relief:* One retrospective analysis has determined that the mean duration of relief is approximately 10-12 months (range 4-19 months). Subsequent procedures may not be as successful (possibly secondary to technical failure or progression of spinal degeneration). (Schofferman, 2004) In a more recent study 68.4% of patients reported good to excellent pain relief at 6 months and showed consistent results with the above findings. (Gofeld, 2007)<br><br>*Complications:* Potential side effects include painful cutaneous dysesthesias, increased pain due to neuritis or neurogenic inflammation, and cutaneous hyperesthesia. Neuritis is the most frequent complication (5% incidence). (Boswell, 2005) (Boswell2, 2007) (Cohen, 2007) The clinician must be aware of the risk of developing a deafferentation centralized pain syndrome as a complication of this and other neuroablative procedures. This procedure is commonly used to provide a window of pain relief allowing for participation in active therapy. (Washington, 2005) (Manchikanti, 2003) |

**A DESCRIPTION AND THE SOURCE OF THE SCREENING CRITERIA OR OTHER CLINICAL BASIS USED TO MAKE THE DECISION:**

- ☐ **ACOEM- AMERICAN COLLEGE OF OCCUPATIONAL & ENVIRONMENTAL MEDICINE UM KNOWLEDGEBASE**
- ☐ **AHCPR- AGENCY FOR HEALTHCARE RESEARCH & QUALITY GUIDELINES**
- ☐ **DWC- DIVISION OF WORKERS COMPENSATION POLICIES OR GUIDELINES**
- ☐ **EUROPEAN GUIDELINES FOR MANAGEMENT OF CHRONIC LOW BACK PAIN**
- ☐ **INTERQUAL CRITERIA**
- ☒ **MEDICAL JUDGEMENT, CLINICAL EXPERIENCE, AND EXPERTISE IN ACCORDANCE WITH ACCEPTED MEDICAL STANDARDS**
- ☐ **MERCY CENTER CONSENSUS CONFERENCE GUIDELINES**
- ☐ **MILLIMAN CARE GUIDELINES**
- ☒ **ODG- OFFICIAL DISABILITY GUIDELINES & TREATMENT GUIDELINES**
- ☐ **PRESSLEY REED, THE MEDICAL DISABILITY ADVISOR**
- ☐ **TEXAS GUIDELINES FOR CHIROPRACTIC QUALITY ASSURANCE & PRACTICE PARAMETERS**
- ☐ **TEXAS TACADA GUIDELINES**
- ☐ **TMF SCREENING CRITERIA MANUAL**
- ☐ **PEER REVIEWED NATIONALLY ACCEPTED MEDICAL LITERATURE (PROVIDE A DESCRIPTION)**
- ☐ **OTHER EVIDENCE BASED, SCIENTIFICALLY VALID, OUTCOME FOCUSED GUIDELINES (PROVIDE A DESCRIPTION)**