

AccuReview

An Independent Review Organization

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Notice of Independent Review Decision

DATE OF REVIEW: May 10, 2012

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:

LT L4-L5 Medial Branch Block

A DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION:

This physician is Board Certified in Occupational Medicine with over 34 years of experience.

REVIEW OUTCOME:

Upon independent review the reviewer finds that the previous adverse determination/adverse determinations should be:

Overturned (Disagree)

Provide a description of the review outcome that clearly states whether or not medical necessity exists for each of the health care services in dispute.

INFORMATION PROVIDED TO THE IRO FOR REVIEW:

10-13-10: MRI Lumbar interpreted by MD

10-25-10: Evaluation by MD with Orthopedics, xxxx

11-03-10: Initial Consultation with MD

12-22-10: Orthopedic Consult by MD with Orthopedics
01-18-11: Peer Review by MD
01-19-11: MRI Right Shoulder interpreted by MD
08-30-11: Peer Review by MD
10-11-11: Orthopedic Report by MD with Orthopedics
11-07-11: Report of Medical Evaluation by Designated Doctor, MD
02-08-12: Order of Dismissal with Prejudice signed by xxxxx Hearing Officer with TDI
03-01-12: Orthopedic Report by MD with Orthopedics
03-19-12: UR performed by MD
03-30-12: Orthopedic Report by MD with Orthopedics
04-12-12: UR performed by MD

PATIENT CLINICAL HISTORY [SUMMARY]:

The claimant is a male who was injured on xx/xx/xx when he was carrying a heavy piece of sheet rock and slipped on a rock, still holding the sheet rock, and sustained a twisting injury of his lower back and injured his right shoulder.

10-13-10: MRI Lumbar interpreted by xxxxx, MD. Impression: 1. L2-L3: There is decrease in vertical disc height. Mild disc desiccation is seen. Disc herniation is seen with protrusion of the disc by approximately 2mm. 2. L3-L4: There is decrease in vertical disc height. Mild disc desiccation is seen. The facet joints are normal. No significant central or foraminal stenosis. There is herniation of the disc by approximately 3mm into the spinal canal. 3. L4-L5: There is decrease in vertical disc height. Mild disc desiccation is seen. Moderate osteoarthritis of the facet joints. No significant central or foraminal stenosis. 4. Moderate osteoarthritis of the facet joint at L5-S1.

10-25-10: The claimant was evaluated by MD for back pain with radiation down his right leg and pain in his right shoulder. The claimant had been treated with physical therapy and medication and had been on light duty, but had failed to improve. On physical examination he showed antalgic scoliosis with severe spasm in the lumbar spine. Flexion of the lumbar spine was 70 degrees. Extension did not reach neutral. Lateral flexion to the right was 10 degrees and lateral flexion to the left did not correct the lumbar spasm or the lumbar scoliosis. He had significant weakness of the dorsiflexors of the right foot and absence of the right Achilles tendon reflex. Straight leg raising was 70 degrees in the recumbent and in the sitting position. Diagnosis: Herniated disc L4-L5, Lumbar radiculopathy, and Probable herniated disc C5-C6 with cervical radiculopathy. Plan: A transforaminal epidural steroid injection on the right side at L4-L5 and L5-S1 was recommended.

11-03-10: The claimant had a consultation with MD for pain and discomfort of his right shoulder and low back. On examination of his lumbar spine revealed mild to moderate tenderness to palpation and slight tenseness of the paravertebral muscles. He had painful range of motion and slightly decreased in all directions. Straight leg raises were

negative bilaterally. Patellar reflexes were present. Ankle reflexes were present. Neurosensory was grossly intact. The musculature was 5/5 in all groups tested. Diagnosis: Cervical spine strain, Thoracic spine sprain, Lumbosacral spine sprain, and Sprain of the right shoulder. Plan: He was given a prescription for oral medications to include Darvocet-N 100, Mobic 7.5 mg, and Skelaxin 800 mg. He was also referred to Physical Therapy and for an orthopedic consultation.

12-22-10: The claimant had an orthopedic consultation with MD for complaints of low back pain that he rated as 9/10 with constant pain in his low back area, discomfort with side-to-side movement, soreness, and stiffness. Diagnosis: Disk herniation at L3-L4 and L4-L5, Cervical strain and possible herniated nucleus pulposus, and internal derangement of the right shoulder. Plan: With regard to the lumbar spine, Dr. stated he had exhausted physical therapy with medications, with temporary relief. A lumbar epidural steroid injection in conjunction with post injection physical therapy was recommended.

08-30-11: Peer Review by MD. Dr. xxxxx opined that there was no documentation that any of the current problems related to the shoulder or the back were caused by the injury itself. In medical probability the low back complaints relate to degenerative spondylosis of the lumbosacral spine which is an ordinary disease of life condition. He further opined that the medications prescribed for the claimant were not medically indicated. Additionally no further care for the back including office visits or a TENS unit or electrical muscle stimulator was indicated for this condition. In other words, the condition which is being treated is chronic lumbar spondylosis which is a degenerative condition and an ordinary disease of life. It was not caused by nor exacerbated or aggravated by the injury itself.

10-11-11: The claimant had a follow-up evaluation by MD who noted the claimant had been approved and scheduled for a lumbar epidural steroid injection but on the date he came in for his injection, the claimant's blood pressure was too high and not under control. The claimant had since been treated and his blood pressure was back under control to proceed with the lumbar ESI. On physical examination he continued to have tenderness on his mid to lower lumbar region with decreased range of motion with flexion and extension. He had a positive straight leg raise on the right, negative on the left. His motor strength was weaker in his right lower extremity, mostly with plantar flexors, dorsiflexors, knee extensors, and knee flexors. He continued to experience paresthesias along the lateral aspect of his right lower extremity. His reflexes were 2+ in his patella and his Achilles' reflexes were 1+ on the left and absent on the right.

11-07-11: Report of Medical Evaluation by Designated Doctor, MD who opined the claimant reached clinical Maximum Medical Improvement as of January 25, 2011 with a 5% whole person impairment. Dr. conclude the claimant reached MMI upon that date as that was the date he completed appropriate conservative therapy as per ODG guidelines. He had undergone a course of chiropractic/physical therapy (ODG recommends 10 visits). He had been treated with anti-inflammatories and pain medications. Imaging of his shoulder and back had demonstrated only degenerative

changes. There was no evidence of lumbar radiculopathy on physical exam and there was no atrophy or loss of reflexes.

02-08-12: Order of Dismissal with Prejudice signed by Hearing Officer with TDI. In this Order it is stated that Dr. has withdrawn his pursuit of the lumbar epidural steroid injection & Claimant has agreed to dismiss the disputed issues; and it appearing there is good cause shown.

03-01-12: The claimant had a follow-up evaluation with, MD who reported that following physical therapy and time, his lower extremity symptoms had decreased in nature. He continued to complain mostly of axial mechanical back pain. He presented that day with low back pain he rated as 8/10 with constant pain in the back area, discomfort with side-to-side movement, soreness, and stiffness. He used a cane for ambulation. On physical examination he had tenderness on his left paravertebral area, more so around his left L4 and left L5 area with decreased range of motion in all directions. He had high levels of pain with right and left lateral bending. Straight leg raise elicited back pain only. His motor strength was weakened in both lower extremities, mostly due to back pain. He had very little paresthesias along the lateral aspect of his right lower extremity. His reflexes were 2+ in his patellae. His Achilles reflexes were 1+ on the left and absent on his right. Diagnosis: Disc herniation, L3-L4 and L4-L5 with mechanical axial back pain. Plan: A diagnostic medial branch block to his left L4 and left L5 areas was recommended. Dr. stated that if the claimant did well following the diagnostic medial branch block, he would be a candidate for a radio frequency ablation to treat his mechanical axial back pain.

03-19-12: UR performed by MD. Reason for Denial: Official Disability Guidelines (chapter on pain) states, "Diagnostic blocks may be performed with the anticipation that if successful, treatment may proceed to facet neurotomy at the diagnosed levels." Official Disability Guidelines (chapter on pain) further states, "Facet joint radiofrequency neurotomy 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). Studies have not demonstrated improved function." Medical branch blocks are a prelude to a procedure that is itself not medically necessary, making it too not medically necessary. The medical necessity of this request is unsupported by the records. This conclusion is consistent with Official Disability Guidelines (chapter on the low back).

03-30-12: The claimant had a follow-up evaluation with MD who reports that the claimant continued to remain symptomatic in his lumbar spine with no lower extremity symptoms. His primary complaint was of axial mechanical back pain that he rated 9/10, mostly in the left lower lumbar area. There were no changes from the last documented physical examination. Dr. continued to recommend the medial branch blocks of the left L4-L5.

04-12-12: UR performed by MD. Reason for Denial: The request does not appear medically necessary at this time. There are no results given of previous trial of epidural steroid injection performed on or about 10-11-11. The claimant has apparently completed a tertiary chronic pain program as well as lumbar surgery. The designated doctor evaluation dated 11-07-11 opined that claimant has reached MMI with clinical condition not likely to improve with further active medical treatment or surgical intervention. Per ODG guidelines, facet/medial branch blocks should be limited to patients with low back pain that is nonradicular and at no more than two levels bilaterally. There also should be documentation that the claimant has had and failed at least 4-6 weeks conservative treatment including home exercise, PT and NSAIDs prior to the procedure. Noting that the claimant has radicular symptoms on examination and noting that there is no documentation of recent conservative care, medical necessity is not established.

ANALYSIS AND EXPLANATION OF THE DECISION INCLUDE CLINICAL BASIS, FINDINGS AND CONCLUSIONS USED TO SUPPORT THE DECISION:

The previous adverse determinations are overturned. Per ODG guidelines, facet/medial branch blocks should be “limited to patients with low-back pain that is non-radicular and at no more than two levels bilaterally.” Per Dr. report on 03-01-12, the claimant continued to complain mostly of axial mechanical back pain. He presented that day with low back pain he rated as 8/10 with constant pain in the back area, discomfort with side-to-side movement, soreness, and stiffness. On physical examination the claimant had tenderness on his left paravertebral area, more so around his left L4 and left L5 area with decreased range of motion in all directions. He had high levels of pain with right and left lateral bending. Straight leg raise elicited back pain only. His motor strength was weakened in both lower extremities, mostly due to back pain. He had very little paresthesias along the lateral aspect of his right lower extremity. His reflexes were 2+ in his patellae. His Achilles reflexes were 1+ on the left and absent on his right. Therefore, the claimant would meet the criteria as he has complaints of mechanical low back pain with no radicular complaints and on physical examination he presented with no radicular findings on the left. Additionally, the ODG guidelines states there should be “documentation of failure of conservative treatment (including home exercise, PT and NSAIDS) prior to the procedure for at least 4-6 weeks.” The medical documentation sent for review clearly documented failure of prior conservative care. The request is for left L4-L5 Medial Branch Block and therefore also meets the ODG criteria that no more than two levels are injected. Based on the documentation provided for review, ODG guidelines and the above reasons, I find the request for LT L4-L5 Medial Branch Block is medically necessary.

Per ODG:

Facet joint	Recommend no more than one set of medial branch diagnostic blocks prior to facet neurotomy, if neurotomy is chosen as an option for treatment (a procedure that is still
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<p>diagnostic blocks (injections)</p>	<p>considered “under study”). Diagnostic blocks may be performed with the anticipation that if successful, treatment may proceed to facet neurotomy at the diagnosed levels. Current research indicates that a minimum of one diagnostic block be performed prior to a neurotomy, and that this be a medial branch block (MBB). Although it is suggested that MBBs and intra-articular blocks appear to provide comparable diagnostic information, the results of placebo-controlled trials of neurotomy found better predictive effect with diagnostic MBBs. In addition, the same nerves are tested with the MBB as are treated with the neurotomy. The use of a confirmatory block has been strongly suggested due to the high rate of false positives with single blocks (range of 25% to 40%) but this does not appear to be cost effective or to prevent the incidence of false positive response to the neurotomy procedure itself. (Cohen, 2007) (Bogduk, 2000) (Cohen2, 2007) (Manecchukonda, 2007) (Dreyfuss, 2000) (Manchikanti2, 2003) (Datta, 2009)</p> <p><i>Etiology of false positive blocks:</i> Placebo response (18-32%), use of sedation, liberal use of local anesthetic, and spread of injectate to other pain generators. The concomitant use of sedative during the block can also interfere with an accurate diagnosis. (Cohen, 2007)</p> <p><i>MBB procedure:</i> The technique for medial branch blocks in the lumbar region requires a block of 2 medial branch nerves (MBN). The recommendation is the following: (1) L1-L2 (T12 and L1 MBN); (2) L2-L3 (L1 and L2 MBN); (3) L3-L4 (L2 and L3 MBN); (4) L4-L5 (L3 and L4 MBN); (5) L5-S1: the L4 and L5 MBN are blocked, and it is recommended that S1 nerve be blocked at the superior articular process. Blocking two joints such as L3-4 and L4-5 will require blocks of three nerves (L2, L3 and L4). Blocking L4-5 and L5-S1 will require blocks of L3, L4, L5 with the option of blocking S1. (Clemans, 2005) The volume of injectate for diagnostic medial branch blocks must be kept to a minimum (a trace amount of contrast with no more than 0.5 cc of injectate), as increased volume may anesthetize other potential areas of pain generation and confound the ability of the block to accurately diagnose facet pathology. Specifically, the concern is that the lateral and intermediate branches will be blocked; nerves that innervate the paraspinal muscles and fascia, ligaments, sacroiliac joints and skin. (Cohen, 2007) Intraarticular blocks also have limitations due to the fact that they can be technically challenging, and if the joint capsule ruptures, injectate may diffuse to the epidural space, intervertebral foramen, ligamentum flavum and paraspinal musculature. (Cohen, 2007) (Washington, 2005) (Manchikanti, 2003) (Dreyfuss, 2003) (BlueCross BlueShield, 2004) (Pneumaticos, 2006) (Boswell, 2007) (Boswell2, 2007) A recent meta-analysis concluded that there is insufficient evidence to evaluate validity or utility of diagnostic selective nerve root block, intra-articular facet joint block, medial branch block, or sacroiliac joint block as diagnostic procedures for low back pain with or without radiculopathy. (Chou2, 2009) This study suggests that proceeding to radiofrequency denervation without a diagnostic block is the most cost-effective treatment paradigm, but does not result in the best pain outcomes. (Cohen, 2010) See also Facet joint pain, signs & symptoms; Facet joint radiofrequency neurotomy; Facet joint medial branch blocks (therapeutic injections); & Facet joint intra-articular injections (therapeutic blocks). Also see Neck Chapter and Pain Chapter.</p> <p>Criteria for the use of diagnostic blocks for facet “mediated” pain:</p> <p>Clinical presentation should be consistent with facet joint pain, signs & symptoms.</p> <ol style="list-style-type: none"> 1. One set of diagnostic medial branch blocks is required with a response of $\geq 70\%$. The pain response should last at least 2 hours for Lidocaine. 2. Limited to patients with low-back pain that is non-radicular and at no more than two levels bilaterally. 3. There is documentation of failure of conservative treatment (including home exercise, PT and NSAIDs) prior to the procedure for at least 4-6 weeks. 4. No more than 2 facet joint levels are injected in one session (see above for medial branch block levels). 5. Recommended volume of no more than 0.5 cc of injectate is given to each joint. 6. No pain medication from home should be taken for at least 4 hours prior to the diagnostic block and for 4 to 6 hours afterward. 7. Opioids should not be given as a “sedative” during the procedure. 8. The use of IV sedation (including other agents such as midazolam) may be grounds to
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	<p>negate the results of a diagnostic block, and should only be given in cases of extreme anxiety.</p> <p>9. The patient should document pain relief with an instrument such as a VAS scale, emphasizing the importance of recording the maximum pain relief and maximum duration of pain. The patient should also keep medication use and activity logs to support subjective reports of better pain control.</p> <p>10. Diagnostic facet blocks should not be performed in patients in whom a surgical procedure is anticipated. (Resnick, 2005)</p> <p>11. Diagnostic facet blocks should not be performed in patients who have had a previous fusion procedure at the planned injection level. [Exclusion Criteria that would require UR physician review: Previous fusion at the targeted level. (Franklin, 2008)]</p>
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<p>Facet joint intra-articular injections (therapeutic blocks)</p>	<p>Under study. Current evidence is conflicting as to this procedure and at this time no more than one therapeutic intra-articular block is suggested. If successful (pain relief of at least 50% for a duration of at least 6 weeks), the recommendation is to proceed to a medial branch diagnostic block and subsequent neurotomy (if the medial branch block is positive). If a therapeutic facet joint block is undertaken, it is suggested that it be used in consort with other evidence based conservative care (activity, exercise, etc.) to facilitate functional improvement. (Dreyfuss, 2003) (Colorado, 2001) (Manchikanti, 2003) (Boswell, 2005) See Segmental rigidity (diagnosis). In spite of the overwhelming lack of evidence for the long-term effectiveness of intra-articular steroid facet joint injections, this remains a popular treatment modality. Intra-articular facet joint injections have been popularly utilized as a therapeutic procedure, but are not currently recommended as a treatment modality in most evidence-based reviews as their benefit remains controversial. The therapeutic facet joint injections described here are injections of a steroid (combined with an anesthetic agent) into the facet joint under fluoroscopic guidance to provide temporary pain relief. (Dreyfuss, 2003) (Nelemans-Cochrane, 2000) (Carette, 1991) (Nelemans, 2001) (Slipman, 2003) (van Tulder, 2006) (Colorado, 2001) (ICSI, 2004) (Bogduk, 2005) (Resnick, 2005) (Airaksinen, 2006) An updated Cochrane review of injection therapies (ESIs, facets, trigger points) for low back pain concluded that there is no strong evidence for or against the use of any type of injection therapy, but it cannot be ruled out that specific subgroups of patients may respond to a specific type of injection therapy. (Staal-Cochrane, 2009)</p> <p><i>Systematic reviews endorsing therapeutic intra-articular facet blocks:</i></p> <p><i>Pain Physician, 2005:</i> In 2005 there were two positive systematic reviews published in <i>Pain Physician</i> that stated that the evidence was moderate for short-term and limited for long-term improvement using this intervention. (Boswell, 2005) (Boswell, 2005) These results were based, in part, on five observational studies. These non-controlled studies were confounded by variables such as lack of confirmation of diagnosis by dual blocks and recording of subjective pain relief, or with measures that fell under verbal rating and/or pain relief labels (measures that have been reported to have problems with validity). (Edwards, 2005)</p> <p><i>Pain Physician, 2007:</i> <i>Pain Physician</i> again published a systematic review on this subject in 2007 and added one additional randomized trial comparing intra-articular injections with sodium hyaluronate to blocks with triamcinolone acetonide. The diagnosis of facet osteoarthritis was made radiographically. (Fuchs, 2005) Two randomized trials were not included, in part, as they failed to include controlled diagnostic blocks. These latter articles were negative toward the use of therapeutic facet blocks. (Lilius, 1989) (Marks, 1992) An observational non-controlled study that had positive results was included that made the diagnosis of lumbar facet syndrome based on clinical assessment of “pseudoradicular” lumbar pain, including evidence of an increase of pain in the morning and with excessive stress and exercise (no diagnostic blocks were performed). (Schulte, 2006) With the inclusion of these two articles the conclusion was changed so that the evidence for lumbar intra-articular injections was “moderate” for both short-and long-term</p>
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improvement of low back pain. ([Boswell2, 2007](#))

Complications: These included suppression of the hypothalamic-pituitary-adrenal axis for up to 4 weeks due to steroids with resultant elevated glucose levels for less than a week. ([Ward, 2002](#)) There have been rare cases of infection (septic arthritis, epidural abscess and meningitis). ([Cohen, 2007](#)) Complications from needle placement include dural puncture, spinal cord trauma, intraarterial and intravenous injection, spinal anesthesia, neural trauma, pneumothorax, and hematoma formation. ([Boswell2, 2007](#))

Single photon emission computed tomography: (bone scintigraphy, SPECT scan): Not recommended although recent research is promising. This technique is recommended based on the ability of radionuclide bone scintigraphy to detect areas of increased function, depicting synovial areas of inflammation as well as degenerative changes. Thirteen of 15 patients had a > 1 standard deviation pain score improvement at 1 month versus 7 of 32 patients with a negative or no scan. The benefit of the injection lasted for approximately 3 months and did not persist to 6 months. ([Pneumaticos2, 2006](#)) See also [Facet joint diagnostic blocks](#) (injections); [Facet joint pain, signs & symptoms](#); [Facet joint radiofrequency neurotomy](#); [Facet joint medial branch blocks](#) (therapeutic injections); & [Segmental rigidity](#) (diagnosis). Also see [Neck Chapter](#) and [Pain Chapter](#).

Criteria for use of therapeutic intra-articular and medial branch blocks, are as follows:

1. No more than one therapeutic intra-articular block is recommended.
2. There should be no evidence of radicular pain, spinal stenosis, or previous fusion.
3. If successful (initial pain relief of 70%, plus pain relief of at least 50% for a duration of at least 6 weeks), the recommendation is to proceed to a medial branch diagnostic block and subsequent neurotomy (if the medial branch block is positive).
4. No more than 2 joint levels may be blocked at any one time.
5. There should be evidence of a formal plan of additional evidence-based activity and exercise in addition to facet joint injection therapy.

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)**