

CASEREVIEW

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Notice of Independent Review Decision

[Date notice sent to all parties]: December 18, 2013

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:

1 Left L3-4, L4-5, L5-S1 Facet Joint Injections under Fluoroscopy & Epidurography, as an Outpatient

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

This physician is Board Certified in Anesthesiology and has experience in Pain Management.

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.

INFORMATION PROVIDED TO THE IRO FOR REVIEW:

07/16/13: Initial Evaluation
07/17/13: Physical Therapy Evaluation
07/22/13: Physical Therapy Daily Note
07/23/13: Physical Therapy Daily Note
07/24/13: Follow-up Evaluation
07/26/13: Physical Therapy Daily Note
07/30/13: Physical Therapy Daily Note
07/31/13: Physical Therapy Re-Evaluation
07/31/13: Physical Therapy Daily Note
08/01/13: Follow-up Evaluation
08/05/13: Physical Therapy Daily Note
08/07/13: Physical Therapy Daily Note
08/07/13: MRI Lumbar Spine

08/08/13: Physical Therapy Daily Note
08/09/13: Follow-up Evaluation
08/13/13: Physical Therapy Daily Note
08/14/13: Physical Therapy Re-evaluation
08/14/13: Physical Therapy Daily Note
08/18/13: Physical Therapy Daily Note
08/19/13: Follow-up Evaluation
08/20/13: Physical Therapy Daily Note
08/21/13: Initial Pain Evaluation
08/28/13: Follow-up Evaluation
09/04/13: Follow-up Note
09/25/13: Follow-up Evaluation
09/30/13: Follow-up Note
10/02/13: Follow-up Evaluation
10/09/13: Follow-up Evaluation
10/16/13: EMG/NCS interpreted
10/21/13: Follow-up Evaluation
10/24/13: Follow-up Note
11/04/13: Follow-up Evaluation
11/12/13: UR performed
11/13/13: UR performed
11/25/13: Follow-up Evaluation

PATIENT CLINICAL HISTORY [SUMMARY]:

This claimant is a male who was injured on xx/xx/xx when he had a sharp pain shoot from the middle of his back down both legs into the toes.

On July 16, 2013, the claimant was evaluated for low back pain rated 7/10 with numbness and tingling in the lower extremities. On physical examination side bending was normal with rotation decreased bilaterally. Extension was also decreased. There was muscle spasm along the paraspinal muscle bilaterally. Deep tendon reflexes were normal. Sensation was normal. Muscle strength was normal. SLR was negative bilaterally. X-rays of the lumbar spine were negative for fracture or dislocation. Diagnosis: Bilateral Displacement of lumbar intervertebral disc without myelopathy. Recommendations: Physical therapy evaluation, Medication: Naprosyn 500 mg, Flexeril 10 mg, and Ultracet 37.5/325 mg.

On August 1, 2013, the claimant was re-evaluated. The claimant reported he was worse and that PT was making the pain worse. His pain was rated 8/10 with numbness, tingling and shooting pain down his left leg. On physical examination, muscle spasm along the paraspinal muscles increased. Reflexes, sensation, muscle strength were all normal. SLR was negative bilaterally. Diagnosis: Bilateral Lumbar Sprain. Recommendations: Continue physical therapy. Continue medications. MRI.

On August 7, 2013, MRI Lumbar Spine, Impression: 1. Facet joint effusions are present at L2-3 through L5-S1, indicative of acute facet joint irritation and lumbar

facet syndrome. 2. L1-L2: 2mm right paracentral protrusion with mild thecal sac stenosis. 3. L2-3: No evidence of disc herniation, thecal sac stenosis or neural foraminal encroachment. 4. L3-4: Broad 1 mm disc protrusion. 5. L4-5: Broad 1-2 mm disc protrusion. 6. L5-S1: Broad 1 mm disc protrusion.

On August 9, 2013, the claimant was re-evaluated. Pain was rated 6/10. Recommendations: Continue physical therapy and medication. Referral for ESI.

On August 14, 2013, the claimant had a physical therapy re-evaluation reported no goals were met and that impairments remaining were: LSP pain, ROM, flexibility, strength and endurance. Recommendations were to continue treatment for reducing impairments and improve functional performance.

On August 21, 2013, the claimant was evaluated for chronic persistent axial back, bilateral buttock and leg pain. Pain was rated 8/10. On physical examination he walked with upright gait, balance and coordination. He had increased paraspinal muscle tone, trigger point tenderness throughout the mid thoracic and lumbar spine, extension at 20 degrees and flexion at 20 degrees reproduced back pain. He showed significant paravertebral spasm throughout this back as well as into the buttock and hamstring regions. Straight leg rising was 70 degrees bilateral with hamstring tightness noted. Pinprick sensation was diminished in non-segmental dermatomal fashion. Diagnoses: 1. Chronic axial back pain consistent with mechanical back pain syndrome or lumbar facet syndrome following work related accident. 2. Lumbar disk protrusions, cannot rule out radiculopathy following work related accident. 3. Reactive depression, anxiety and chronic pain state. Recommendations: gabapentin 600 mg 3 times per day with his tramadol 50 mg three times per day and Klonopin at night. Elimination of noxious stimuli such as smoking and caffeine was encouraged. Also began him on Wellbutrin. Once medication management has been stabilized, consider a facet versus ESI.

On September 4, 2013, the claimant was re-evaluated who reported the Ultram was not helping with his back pain. Due to having undergone conservative, rehabilitative and medical treatment with no improvement, and ESI was recommended. Hydrocodone 7.5 mg was also started.

On September 30, 2013, the claimant was re-evaluated for continued moderate back, left buttock and leg pain. On exam he had decreased pinprick sensation in the L5 distribution and an antalgic limp and gait was now requiring a cane support device. An ESI was recommended.

On October 16, 2013, EMG/NCS, Impression: 1. There is no electrical evidence for a lumbar radiculopathy. 2. There is no electrical evidence for a lower extremity motor or sensory neuropathy. 3. Normal electrical study of the lumbar spine and bilateral lower extremities.

On October 21, 2013, the claimant was re-evaluated. On physical examination ROM was decreased in all planes. Muscle spasm along the paraspinal muscles resolved. Tenderness remained the same. Deep tendon reflexes were normal.

Sensation was decreased on the right and S1 nerve root distribution. Muscle strength decreased, mostly pain related. SLR was positive bilaterally. Recommendations: No PT, Medication: Wellbutrin, Neurontin, Klonopin, And Hydrocodone.

On October 24, 2013, the claimant was re-evaluated who reported they had achieved improvement of affect, mood, sleep and pain tolerance following their combination of medications. He was still having moderate back pain aggravated with side bending and extension. opined that the claimant's clinical findings were consistent with lumbar facet syndrome in light of the MRI and EMG/NCS findings. Facet injection therapy was recommended.

On November 12, 2013, performed a UR. Rationale for Denial: When noting the date of injury, tempered by the multiple level degenerative changes identified in the facet joints from L2 through S1, it is clear that the pathology being addressed is not a function of the compensable event and this appears to be an ordinary disease of life issue. That point notwithstanding, as outlined in the ODG, there is no indication to perform therapeutic facet joint injections at more than 2 levels. Therefore, given the request made, this is not clinically indicated.

On November 13, 2013, performed a UR. Rationale for Denial: When noting the date of injury, tempered by the multiple level degenerative changes identified in the facet joints from L2 through S1, it is clear that the pathology being addressed is not a function of the compensable event and this appears to be an ordinary disease of life issue. That point notwithstanding, as outlined in the ODG, there is no indication to perform therapeutic facet joint injections at more than 2 levels. Therefore, given the request made, this is not clinically indicated.

On November 25, 2013, the claimant was re-evaluated. Pain level was reported an 8. He remained ambulating with a cane slightly hunched over. Sensation still decreased on the right in a L5, S1 distribution. SLR positive bilaterally.

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

The previous adverse determinations are upheld. Based on radiographic studies, it is likely that the degenerative changes in the facet joints from L2 to S1 are attributable to natural degenerative processes rather than a single injurious event. Furthermore, per ODG, it is not advisable to perform facet injections at more than two levels in one session. For both of these reasons the request for 1 Left L3-4, L4-5, L5-S1 Facet Joint Injections under Fluoroscopy & Epidurography, as an Outpatient is not clinically indicated and is non-certified at this time.

PER ODG:

Facet joint diagnostic blocks (injections)	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 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
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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) (Manchikonda, 2007) (Dreyfuss, 2000) (Manchikanti2, 2003) (Datta, 2009)

Etiology of false positive blocks: 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)

MBB procedure: 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](#).

Criteria for the use of diagnostic blocks for facet “mediated” pain:

Clinical presentation should be consistent with [facet joint pain, signs & symptoms](#).

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 negate the results of a diagnostic block, and should only be given in cases

of extreme anxiety.

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.

10. Diagnostic facet blocks should not be performed in patients in whom a surgical procedure is anticipated. ([Resnick, 2005](#))

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](#))]

Facet joint intra-articular injections (therapeutic blocks)

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](#))

Systematic reviews endorsing therapeutic intra-articular facet blocks:

Pain Physician, 2005: In 2005 there were two positive systematic reviews published in *Pain Physician* 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](#))

Pain Physician, 2007: *Pain Physician* 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 acetone. 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 improvement of low back pain. ([Boswell, 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)**