

SENT VIA EMAIL OR FAX ON  
Nov/20/2008

## Applied Resolutions LLC

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### NOTICE OF INDEPENDENT REVIEW DECISION

**DATE OF REVIEW:** Nov/19/2008

**IRO CASE #:**

**DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:**

Facet Injections, bilateral L3/4, L4/5, L5/S1 with post injection physical therapy

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

Board Certified in Physical Medicine and Rehabilitation?  
Subspecialty Board Certified in Pain Management ?  
Subspecialty Board Certified in Electrodiagnostic Medicine?  
Residency Training PMR and ORTHOPAEDIC SURGERY?

**REVIEW OUTCOME:**

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

Upheld (Agree)

Overturned (Disagree)

Partially Overturned (Agree in part/Disagree in part)

**INFORMATION PROVIDED TO THE IRO FOR REVIEW**

Denial Letters 10/31/08 and 11/6/08  
MRI 6/26/08  
Records from 6/20/08 thru 11/3/08  
Records from Dr. 7/10/08 thru 10/20/08  
Record from Dr. 9/19/08  
WC Statement 6/18/08  
X-Ray 6/19/08  
Records from Dr. 7/13/08 and 8/5/08  
Daily Progress Notes 7/11/08 thru 9/3/08  
Record from Dr.  
OD Guidelines

**PATIENT CLINICAL HISTORY SUMMARY**

This is a heavy xx year old woman who reportedly developed back pain after moving a large television on xx/xx/xx. The pain developed gradually. Subsequent evaluations and pain drawings described localized pain in the lower back going to the posterior thighs. The pain worsened with back extension and left and right lateral flexion. She had a lumbar MRI (6/26/08) that described a right L4/5 paracentral disc protrusion and a narrow right lateral

recess, a L5/S1 posterocentral disc protrusion, and L4/5 and L5/S1 disc desiccation. The only comment of the facets in the report was that there was mild facet hypertrophy at the L5/S1 level. She had an EMG that showed no evidence of a radiculopathy. She underwent an epidural injection for the pain on 7/10/08 without improvement. She had several FCEs that showed her functional level was limited to light physical demand. There are sonograph studies of the lumbar spine that initially showed lumbar joint inflammation (presumably swelling) and paraspinal swelling. The SI joint was normal. The second study on 8/5 showed improvement of the swelling. There are several requests for facet injections. There are reports of depression.

#### **ANALYSIS AND EXPLANATION OF THE DECISION INCLUDING CLINICAL BASIS, FINDINGS AND CONCLUSIONS USED TO SUPPORT THE DECISION**

This lady reportedly injured her back as cited above. There were questions of the development of depression. Pain and depression are causally linked. One may create or contribute to the other. There was no history, physical or diagnostic finding to suggest a radiculopathy. The ESI did not help. The pain generator is not clear. The spinal ultrasounds suggest facet joints (the lumbar joint in the initial report) as being inflamed. It improved in the second study. There are questions of the value of spinal ultrasounds from my training with the American Institute of Ultrasound in Medicine. Be that as it may, the study, if valued, shows improvement. The pain generator has not been identified. There are clinical findings suggestive of either SI or facet pain. It can be difficult to determine which is the pain generator. The ODG addresses the diagnostic role of facet blocks prior to a therapeutic neurectomy. The technical issues are discussed in the ODG.

The criteria are specific. She has non radicular pain. The ODG finds evidence to limit the study to no more than two levels bilaterally in criteria 2 and 4 of the diagnostic block and criteria 4 of the therapeutic blocks. The requesting physician wants to perform 3 bilateral levels. Therefore, the request is not medically necessary.

#### 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 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) (Mancchukonda, 2007) (Dreyfuss, 2000) (Manchikanti2, 2003)

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) (Pneumatics, 2006) (Boswell, 2007) (Boswell2, 2007) 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 be approximately 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.

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)

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 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 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

Facet joint injections, multiple serie

Not recommended.

Diagnostic blocks: One set of medial branch blocks is recommended prior to a neurotomy. Intra-articular blocks are not recommended as the diagnostic procedure. Confirmatory blocks, while recommended for research studies, do not appear to be cost effective or to prevent the incidence of a false positive response to the neurotomy procedure itself. See Facet joint diagnostic blocks (injections).

Therapeutic injections: With respect to facet joint intra-articular therapeutic injections, 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). See Facet joint intra-articular injections (therapeutic blocks). There is no peer-reviewed literature to support a "series" of therapeutic fact blocks.

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

ACOEM-AMERICA 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 ERVIEWED NATIONALLY ACCEPTED MEDICAL LITERATURE (PROVIDE A DESCRIPTION)

OTHER EVIDENCE BASED, SCIENTIFICALLY VALID, OUTCOME FOCUSED GUIDELINES (PROVIDE A DESCRIPTION)