

CASEREVIEW

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Notice of Independent Review Decision

DATE OF REVIEW: June 8, 2012

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:

Lumbar Laminectomy/Discectomy at L4/L5 and L5/S1 and LSO back brace

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 13 years of experience.

REVIEW OUTCOME:

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

Partially Overturned (Agree in part/Disagree in part)

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:

PATIENT CLINICAL HISTORY [SUMMARY]:

The claimant is a male who was injured on xx/xx/xx while xxxxx on his right shoulder. He was walking and tripped xxxxx, causing him to fall forward. He received immediate medical attention by the company doctor who ordered an MRI and physical therapy.

On xx/xx/xx, MRI of Lumbar Spine, Impression: 1. Mild disc space narrowing with central 4 mm protrusion/herniation at L4-5 with bilateral facet hypertrophy creates mild stenosis with bilateral L5 nerve root encroachment. 2. Left paracentral 3 mm protrusion at L5-S1 with mild disc space narrowing and facet arthropathy creates effacement of the thecal sac without significant nerve root compromise.

On August 29, 2011, the claimant was evaluated by MD for complaints of pain in his lumbar spine, left knee, left shoulder and left wrist. He described the pain as stabbing in the lumbar spine and reported the pain as constant. On physical examination Double Leg Raise was positive for acute lumbosacral/ligamentous injury. Straight Leg Raise was positive for space occupying lesion at 30 degrees bilaterally. Yeoman's was positive for posterior lumbar spine pain bilaterally. Kemps was positive for nerve root compression and/or muscular injuries. Evaluation of the lumbar spine revealed moderate-severe tension, tenderness, spasms and decreased range of motion. Muscle strength of the knee extensors (L3-L4) was 4/5 and of the knee flexors (L4-L5) was 4/5. Paraesthesia was noted in the left L5 dermatome. X-rays of the lumbar spine revealed displacement of lumbar intervertebral disc without myelopathy. Diagnosis for the Lumbar spine: Displacement of Lumbar Intervertebral Disc without Myelopathy and Lumbosacral Radiculitis. Plan: He was prescribed Ultram and Vicodin. Physical therapy was recommended to include for the lumbar spine, ice, heat, electrical muscle stimulation, therapeutic exercises, myofascial release and manipulation for 3 times per week for 2 weeks.

On November 10, 2011, the claimant was evaluated by MD at the request of Dr. for lumbar epidural steroid injection at the level of L4-L5. It was reported that in the pas the claimant had been treated with oral medication and physical therapy and continued to complain of some constant lower back pain. The claimant described that pain as constant aching with associated numbness with a rating of 5/10. Diagnosis: Low back pain, lumbar radiculopathy and internal derangement of the lumbar spine.

On November 10, 2011, Operative Note by MD. Preoperative Diagnosis: 1. Low back pain. 2. Lumbar radiculopathy. 3. Herniated nucleus pulposus of the lumbar spine. Procedure: 1. Lumbar epidural steroid injection #1 with preservative-free normal saline and Kenalog. 2. Fluoroscopy. 3. Radiological examination and interpretation of lumbar epidurogram.

On February 21, 2012, the claimant was evaluated by MD with, LLC who reported the claimant presented with low back pain and numbness and tingling traveling down the left lower extremity going all the way down to the toes. The claimant reported a feeling of weakness in the left leg and that his leg gives way from time

to time. Dr. reported that he claimant received physical therapy over six weeks without significant improvement and that he has had one epidural steroid injection with no improvement in symptoms. On physical examination he had a normal gait and was able to heel walk and toe walk with difficulty. He was able to flex to 35 degrees and extend to 10 degrees. Straight leg raising test reproduced buttock pain on the left side. Neurologic testing was significant for extensor hallucis longus weakness on the left and foot evetor weakness on the left side. This was consistent with L5 and S1 myotome weakness on the left. Dermatomal sensory testing was diminished over the outer border of the foot on the left side consistent with S1 dermatomal sensory impairment. Deep tendon reflexes were within normal limits. X-rays of the Lumbar spine showed five non-rib-bearing lumbar vertebrae. Lumbar lordosis was maintained. Disc space height was preserved. No fracture or subluxation was seen. Between flexion to extension, no abnormal translation or rotation was evident. Diagnosis: 1. Lumbar disc herniation, L4-L5, centrally. 2. Lumbar disc herniation, L5-S1, left side. Recommendations: Lumbar laminectomy and discectomy at L4-L5 centrally and L5-S1 on the left.

On March 21, 2012, the claimant was evaluated by MD who cleared him for surgery from a cardiovascular standpoint.

On April 10, 2012, the claimant was re-evaluated by MD who reported the surgical treatment had been denied by the insurance carrier. An EMG/NCV study of the lower extremities was recommended to provide further objective evidence of the underlying pathology.

On April 17, 2012, the claimant underwent an EMG/NCV of the lower extremities. Interpretation: Findings are consistent with subacute left L5 root irritation consistent with radiculopathy with some evidence of ongoing denervation.

On April 12, 2012, MD performed a UR on the claimant. Rationale for Denial: The patient presents with low back pain and numbness and tingling travelling down the left lower extremity going all the way down to the toes, a feeling of weakness in the left leg and giving way of the left leg. Objective findings include positive straight leg raise on the left, EHL weakness on the left, foot evetor weakness on the left and decreased sensation in the S1 dermatome. Imaging findings include an 8/23/11 lumbar MRI demonstrating, at the L4-5 level, bilateral L5 nerve root encroachment; and, at the L5-S1 level, a 3 mm protrusion creating effacement of the thecal sac without significant nerve root compromise. Conservative care has included PT, lumbar ESI, and medication. However, imaging reports do not demonstrate S1 nerve root compromise. In additional, electrodiagnostic studies also failed to corroborate S1 radiculopathy. Therefore, the request is non-certified. As the surgical request is non-certified, the associated request for an LSO back brace is also non-certified.

On May 14, 2012, DO preformed a UR on the claimant. Rationale for Denial: The claimant reported to have sustained a back injury as the result of lifting. The records report the failure of conservative management that has included oral

medications, physical therapy, and ESI. The claimant has objective findings of L5 nerve root involvement. MRI indicates impingement of the nerve roots, EMG/NCV (nerve conduction velocity) notes a chronic L5 radiculopathy and examination notes findings consistent with L5 nerve root involvement. However, imaging does not support the presence of neurocompression involving the S1 nerve root and EMG/NCV did not indicate an S1 radiculopathy. Therefore, the request cannot be supported as medically necessary. Further clinical information and insight is required to establish the medical necessity for surgical intervention at the L5/S1 level. Attempts have been made to reach the provider but were unsuccessful.

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

The previous adverse determinations are partially overturned. The ODG supports back braces for the treatment of nonspecific back pain. The claimant's back pain is most likely associated with the documented facet joint disease at L4-5 and L5-S1. The brace could theoretically limit motion in the facet joints, and help the patient's back pain. The back brace is recommended prior to considering surgery.

This claimant also meets ODG criteria for Discectomy/Laminectomy at the L4-L5 level only. He has documented L5 nerve compression on MRI and EMG/NC studies. He has associated extensor hallucis longus weakness, which correlates with L5 nerve root compression. He has failed conservative therapy. Surgery would be indicated after a trial of the back brace.

Surgery at L5-S1 is not indicated. The claimant has no MRI or EMG/NCV evidence of S1 nerve compression. The MRI report specifically indicates that the L5-S1 disc does not significantly affect the nerve root. The MRI does not support a concordance between radicular findings on examination and radiologic evidence of nerve compression at the L5-S1 level.

In summary, the request for Lumbar Laminectomy/Discectomy at L4/L5 and L5/S1 and LSO back brace is partially approved. The Lumbar Laminectomy/Discectomy at L4/L5 is found to be medically necessary after a trail of LSO back brace. The Laminectomy/Discectomy at L5/S1 has not been found to be medically necessary.

Per ODG:

ODG Indications for Surgery™ -- Discectomy/laminectomy --

Required symptoms/findings; imaging studies; & conservative treatments below:

I. Symptoms/Findings which confirm presence of radiculopathy. Objective findings on examination need to be present. Straight leg raising test, crossed straight leg raising and reflex exams should correlate with symptoms and imaging.

Findings require ONE of the following:

A. L3 nerve root compression, requiring ONE of the following:

1. Severe unilateral quadriceps weakness/mild atrophy
2. Mild-to-moderate unilateral quadriceps weakness
3. Unilateral hip/thigh/knee pain

- B. L4 nerve root compression, requiring ONE of the following:
 1. Severe unilateral quadriceps/anterior tibialis weakness/mild atrophy
 2. Mild-to-moderate unilateral quadriceps/anterior tibialis weakness
 3. Unilateral hip/thigh/knee/medial pain
- C. L5 nerve root compression, requiring ONE of the following:
 1. Severe unilateral foot/toe/dorsiflexor weakness/mild atrophy
 2. Mild-to-moderate foot/toe/dorsiflexor weakness
 3. Unilateral hip/lateral thigh/knee pain
- D. S1 nerve root compression, requiring ONE of the following:
 1. Severe unilateral foot/toe/plantar flexor/hamstring weakness/atrophy
 2. Moderate unilateral foot/toe/plantar flexor/hamstring weakness
 3. Unilateral buttock/posterior thigh/calf pain

(EMGs are optional to obtain unequivocal evidence of radiculopathy but not necessary if radiculopathy is already clinically obvious.)

II. Imaging Studies, requiring ONE of the following, for concordance between radicular findings on radiologic evaluation and physical exam findings:

- A. Nerve root compression (L3, L4, L5, or S1)
- B. Lateral disc rupture
- C. Lateral recess stenosis

Diagnostic imaging modalities, requiring ONE of the following:

1. [MR](#) imaging
2. [CT](#) scanning
3. [Myelography](#)
4. [CT myelography](#) & X-Ray

III. Conservative Treatments, requiring ALL of the following:

- A. [Activity modification](#) (not bed rest) after [patient education](#) (≥ 2 months)
- B. Drug therapy, requiring at least ONE of the following:
 1. [NSAID](#) drug therapy
 2. Other analgesic therapy
 3. [Muscle relaxants](#)
 4. [Epidural Steroid Injection](#) (ESI)
- C. Support provider referral, requiring at least ONE of the following (in order of priority):
 1. [Physical therapy](#) (teach home exercise/stretching)
 2. [Manual therapy](#) (chiropractor or massage therapist)
 3. [Psychological screening](#) that could affect surgical outcome

4. [Back school](#) ([Fisher, 2004](#))

For average hospital LOS after criteria are met, see [Hospital length of stay](#) (LOS).

Lumbar supports	<p>Not recommended for prevention. Recommended as an option for treatment. See below for indications.</p> <p><i>Prevention:</i> Not recommended for prevention. There is strong and consistent evidence that lumbar supports were not effective in preventing neck and back pain. (Jellema-Cochrane, 2001) (van Poppel, 1997) (Linton, 2001) (Assendelft-Cochrane, 2004) (van Poppel, 2004) (Resnick, 2005) Lumbar supports do not prevent LBP. (Kinkade, 2007) A systematic review on preventing episodes of back problems found strong, consistent evidence that exercise interventions are effective, and other interventions not effective, including stress management, shoe inserts, back supports, ergonomic/back education, and reduced lifting programs. (Bigos, 2009) This systematic review concluded that there is moderate evidence that lumbar supports are no more effective than doing nothing in preventing low-back pain. (van Duijvenbode, 2008)</p> <p><i>Treatment:</i> Recommended as an option for compression fractures and specific treatment of spondylolisthesis, documented instability, or post-operative treatment, and for treatment of nonspecific LBP. Among home care workers with previous low back pain, adding patient-directed use of lumbar supports to a short course on</p>
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	<p>healthy working methods may reduce the number of days when low back pain occurs, but not overall work absenteeism. (Roelofs, 2007) Acute osteoporotic vertebral compression fracture management includes bracing, analgesics, and functional restoration. (Kim, 2006) An RCT to evaluate the effects of an elastic lumbar belt on functional capacity and pain intensity in low back pain treatment, found an improvement in physical restoration compared to control and decreased pharmacologic consumption. (Calmels, 2009) This RCT concluded that lumbar supports to treat workers with recurrent low back pain seems to be cost-effective, with on average 54 fewer days per year with LBP and 5 fewer days per year sick leave. (Roelofs, 2010) This systematic review concluded that lumbar supports may or may not be more effective than other interventions for the treatment of low-back pain. (van Duijvenbode, 2008) See also Back brace, post operative (fusion).</p>
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<p>Back brace, post operative (fusion)</p>	<p>Under study, but given the lack of evidence supporting the use of these devices, a standard brace would be preferred over a custom post-op brace, if any, depending on the experience and expertise of the treating physician. There is conflicting evidence, so case by case recommendations are necessary (few studies though lack of harm and standard of care). There is no scientific information on the benefit of bracing for improving fusion rates or clinical outcomes following instrumented lumbar fusion for degenerative disease. Although there is a lack of data on outcomes, there may be a tradition in spine surgery of using a brace post-fusion, but this tradition may be based on logic that antedated internal fixation, which now makes the use of a brace questionable. For long bone fractures prolonged immobilization may result in debilitation and stiffness; if the same principles apply to uncomplicated spinal fusion with instrumentation, it may be that the immobilization is actually harmful. Mobilization after instrumented fusion is logically better for health of adjacent segments, and routine use of back braces is harmful to this principle. There may be special circumstances (multilevel cervical fusion, thoracolumbar unstable fusion, non-instrumented fusion, mid-lumbar fractures, etc.) in which some external immobilization might be desirable. (Resnick, 2005)</p>
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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)**