

AccuReview
An Independent Review Organization
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Notice of Independent Review Decision

DATE OF REVIEW: April 4, 2012, AMENDED April 5, 2012

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:

Inpatient 360 degree lateral L2-3 and L3-4 laminectomy and fusion with two (2) days length of stay and purchase of a thoracic-lumbosacral orthotic (TLSO) brace.

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

This physician is Board Certified in Neurological Surgery with over 40 years of experience.

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)

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:

08-19-11: Physical Therapy Initial Evaluation by
08-29-11: Evaluation by
08-29-11: Physical Therapy Discharge Summary by
08-30-11: Physical Therapy Initial Evaluation by
09-29-11: Neurosurgery C-Arm Report by
10-06-11: Lumbar Progress Note/Discharge Summary from
10-06-11: Evaluation by
10-20-11: Operative Report by

10-20-11: Lumbar Myelogram interpreted by
10-20-11: CT of Lumbar Spine interpreted by
12-16-11: Evaluation by
12-16-11: Scoliosis Series interpreted by
03-15-12: UR performed by
03-15-12: Evaluation by
03-22-12: UR performed by

PATIENT CLINICAL HISTORY [SUMMARY]:

The claimant is a male who was injured on xx/xx/xx when he bent over and injured his back. He had pain in his low back throughout his left hip and thigh on the anterior aspect of his thigh to his knee and was described as a pulling pain rated an 8/10. It is documented that the claimant had prior lumbar fusion at L4-L5 in 2003. The claimant was first evaluated by who prescribed Tramadol and physical therapy.

08-19-11: Physical Therapy Initial Evaluation by Assessment: Low back pain with radicular symptoms that has led to a decrease in functional mobility.
Treatment Plan: PT 2 times a week for 4 weeks.

08-29-11: Evaluation by It was reported that the claimant's chief complaint was low back pain with radiating pain into the left anterior lower extremity and into the left buttock. Pain was rated an 8/20. It was noted he did use a cane at times to assist with ambulation. He denied any loss of bowel or bladder control. It was reported a MRI of the lumbar spine completed that month showed degenerative discs from L3-4 through L5-S1. He had a laminectomy defect noted at L4-5, however, he did show a large herniated disc at the L4-5 level compressing the descending L5 nerve root on the left-hand side. There was a severe amount of central canal stenosis noted at the L3-4 level as well. (The official radiology dictation was not available during the office visit, just the MRI images). On physical examination, the left lower extremity had slight muscle weakness to the extensor hallucis longus and tibialis anterior being 5-/5. NO other focal muscle weaknesses noted. Gait was antalgic. There was sensory deficit to the L5 dermatomal distribution to pinprick and light touch from the dorsum of the foot and the great toe into the anterior lower leg. L4 and S1 reflexes were depressed. Straight leg raise was positive on the left at 40 degrees aggravated by Lasegue's. Diagnosis: Low back pain with left L5 lumbar radiculopathy. Plan: Begin physical therapy 3 times a week over the next month. Also an ESI at the L4-L5 level on the left was recommended.

08-29-11: Physical Therapy Discharge Summary by Reported the claimant would be performing physical therapy in Del Rio. No sessions were completed.

08-30-11: Physical Therapy Initial Evaluation by Plan: Physical therapy 3 times a week for 4 weeks.

09-29-11: Neurosurgery C-Arm Report by Procedure performed: Lumbar Epidural Steroid Injection.

10-06-11: Lumbar Progress Note/Discharge Summary from Amistad Physical Therapy Clinic. Number of visits completed was 8. It was noted that WC approved only 8 visits. Recommendation: Further PT now that the claimant had received good results from the ESI.

10-06-11: Evaluation by The claimant reported the physical therapy did not help and that the ESI only gave him relief from the time of the injection until he had returned home. He continued to complain of low back pain with radiating pain into his buttock, the left lateral thigh, and the anterior lower leg with numbness and tingling into the dorsum of the left foot. He rated the pain 5/10. On exam, the lumbar spine revealed no muscle atrophy, spasms, or tremors. His gait was antalgic, station normal. He had muscle weakness to the left lower extremity in the extensor hallucis longus and tibialis anterior being 4.5/5. He had sensory deficit to the dorsum of the foot and the left great toe. No other sensory deficits were noted. L4 reflexes were 1+. S1 reflexes were depressed. Straight leg raise was positive on the left at approximately 40 to 50 degrees, aggravated by Lasegue's. Plan: A CT myelogram was recommended. His prescription for Hydrocodone was refilled.

10-20-11: Operative Report by Postoperative diagnosis: 1. Low back pain. 2. Lumbar radiculopathy. Procedure: Lumbar myelography with CT scan to follow as a preoperative diagnostic tool.

10-20-11: Lumbar Myelogram interpreted by Impression: Thecal sac deformity as described above.

10-20-11: CT of Lumbar Spine interpreted by Impression: Prominent multilevel thecal sac deformity as described above. Findings: There is congenital narrowing of the central canal. L2-L3: Prominent broad-based disk bulge with superimposed disk herniation, severe facet disease, and ligamentum flavum thickening producing severe spinal stenosis and bilateral foraminal stenosis. L3-L4: Prominent broad-based disk bulge with facet hypertrophy producing moderately severe spinal stenosis and bilateral foraminal stenosis. L4-L5: Postop change of interbody fusion and laminectomy. No distortion of the thecal sac with bilateral foraminal stenosis primarily due to bony overgrowth of the facets and endplates.

12-16-11: Evaluation by The claimant reported he could not work and that he could barely walk. He used a cane. On physical examination he had weakness of the extensor hallucis longus and tibialis anterior on the left hand side. There was slight depression of the patellar reflex on the left. There was decreased sensation in the top of the foot on the left. His gait was normal and was able to tandem gait. Romberg was negative. Straight leg raise test was positive, aggravated by Lasegue's to 30 degrees. Diagnosis: 1. Herniated lumbar disc. 2. Low back pain with radiculopathy. 3. Post laminectomy syndrome. 4. Attempted

fusion at L5-S1 with a pseudoarthrosis. Plan: noted that the claimant has a complicated problem. He has a pseudoarthrosis at the L5-S1 level from a previous surgery. He also has sagittally leaning facet joints and a small spinal canal and two herniated discs, L2-3 and L3-4 on the left hand side. opined that ideally the claimant would benefit from a microdiscectomy at both level's but his canal is small and his facets are so sagittal that thought he would disrupt the facet joints in order to be able to remove the herniated disc and render the claimant unstable from surgery. That the surgery itself would cause spinal instability. Therefore, opined that the best option would be a lateral L2-3 and L3-4 fusion and then posterior pedicle screws with instrumentation. As far as the previous fusion, he would need to have that fused as well because he has an arthrodesis, but that is not related to the current work related injury.

12-16-11: Scoliosis Series interpreted by Impression: 1. Mild s-shaped curvature of the lower thoracic and lumbar spine. 2. Otherwise normal scoliosis series.

03-15-12: UR performed by Reason for Denial: In this case, the claimant's prior surgical history, current imaging, deficits on examination and current surgical plan are inconsistent. The claimant presents with evidence of L4-5 pseudoarthrosis and deficits consistent with this level on examination; but are not addressed by the requested procedure. The current examination does not outline deficits consistent with the proposed surgical level. Medical necessity is not evident in the documentation submitted for review.

03-15-12: Evaluation by It was reported the claimant had one ESI and 12 physical therapy sessions with no relief. He had no chiropractic treatments. He was still taking Hydrocodone 5 mg 1 tablet 3 times daily and Lyrica 75 mg 1 tablet twice daily and Flexeril 10 mg 1 tablet twice daily. The claimant stated that his pain was unrelenting and would like to have his back "fixed" so that he may return to work. The claimant is a non smoker. No changes on physical exam. The 360 lateral fusion at L2-3, L3-4 was still recommended.

03-22-12: UR performed by Reason for Denial: In this case, the imaging studies, deficits documented on examination and current surgical plan are inconsistent. The claimant presents with L4-5 pseudoarthrosis and deficits consistent with this level, but the requested procedure does not address this level. There are no progressive neurological signs or symptoms. The examinations do not document deficits consistent with the requested surgical levels. There is no documented spinal instability that would indicate the need for fusion. The request does not follow ODG recommendations for this type of surgery.

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

The previous adverse determinations are upheld. The claimant's clinical picture does not correspond with the requested levels of L2-3, L3-4. On the physical examination by on December 16, 2011, the claimant had weakness of the extensor hallucis longus and tibialis anterior on the left hand side. There was

slight depression of the patellar reflex on the left and there was decreased sensation in the top of the foot on the left. The claimant's clinical picture and imaging studies correlate more with L4-5 pseudoarthrosis which would not be addressed by the proposed surgery. Therefore the request for Inpatient 360 degree lateral L2-3 and L3-4 laminectomy and fusion is not indicated. The requested two (2) days length of stay would not be relevant as the surgery has been found to be not medically necessary.

AMENDED April 5, 2012: The request for purchase of a thoracic-lumbosacral orthotic (TLSO) brace would not be medically necessary as the requested surgery was not indicated.

ODG:

Patient Selection Criteria for Lumbar Spinal Fusion:

For chronic low back problems, fusion should not be considered within the first 6 months of symptoms, except for fracture, dislocation or progressive neurologic loss. Indications for spinal fusion may include: (1) Neural Arch Defect - Spondylolytic spondylolisthesis, congenital neural arch hypoplasia. (2) Segmental Instability (objectively demonstrable) - Excessive motion, as in degenerative spondylolisthesis, surgically induced segmental instability and mechanical intervertebral collapse of the motion segment and advanced degenerative changes after surgical discectomy, with relative angular motion greater than 20 degrees. ([Andersson, 2000](#)) ([Luers, 2007](#)) (3) Primary Mechanical Back Pain (i.e., pain aggravated by physical activity)/Functional Spinal Unit Failure/Instability, including one or two level segmental failure with progressive degenerative changes, loss of height, disc loading capability. In cases of workers' compensation, patient outcomes related to fusion may have other confounding variables that may affect overall success of the procedure, which should be considered. There is a lack of support for fusion for mechanical low back pain for subjects with failure to participate effectively in active rehab pre-op, total disability over 6 months, active psych diagnosis, and narcotic dependence. Spinal instability criteria includes lumbar inter-segmental movement of more than 4.5 mm. ([Andersson, 2000](#)) (4) Revision Surgery for failed previous operation(s) if significant functional gains are anticipated. Revision surgery for purposes of pain relief must be approached with extreme caution due to the less than 50% success rate reported in medical literature. (5) Infection, Tumor, or Deformity of the lumbosacral spine that cause intractable pain, neurological deficit and/or functional disability. (6) After failure of two discectomies on the same disc, fusion may be an option at the time of the third discectomy, which should also meet the ODG criteria. (See [ODG Indications for Surgery -- Discectomy.](#))

Pre-Operative Surgical Indications Recommended: Pre-operative clinical surgical indications for spinal fusion should include all of the following: (1) All pain generators are identified and treated; & (2) All physical medicine and manual therapy interventions are completed; & (3) X-rays demonstrating spinal instability and/or myelogram, CT-myelogram, or discography (see [discography criteria](#)) & MRI demonstrating disc pathology correlated with symptoms and exam findings; & (4) Spine pathology limited to two levels; & (5) [Psychosocial screen](#) with confounding issues addressed. (6) For any potential fusion surgery, it is recommended that the injured worker refrain from smoking for at least six weeks prior to surgery and during the period of fusion healing. ([Colorado, 2001](#)) ([BlueCross BlueShield, 2002](#)) For average hospital LOS after criteria are met, see [Hospital length of stay](#) (LOS).

ODG hospital length of stay (LOS) guidelines:

Discectomy (*icd 80.51 - Excision of intervertebral disc*)

Actual data -- median 1 day; mean 2.1 days (\pm 0.0); discharges 109,057; charges (mean) \$26,219

Best practice target (no complications) -- 1 day

Laminectomy (*icd 03.09 - Laminectomy/laminotomy for decompression of spinal nerve root*)

Actual data -- median 2 days; mean 3.5 days (\pm 0.1); discharges 100,600; charges (mean) \$34,978

Best practice target (no complications) -- 1 day

Lumbar Fusion, posterior (*icd 81.08 - Lumbar and lumbosacral fusion, posterior technique*)

Actual data -- median 3 days; mean 3.9 days (\pm 0.1); discharges 161,761; charges (mean) \$86,900

Best practice target (no complications) -- 3 days

Lumbar Fusion, anterior (*icd 81.06 - Lumbar and lumbosacral fusion, anterior technique*)

Actual data -- median 3 days; mean 4.2 days (± 0.2); discharges 33,521; charges (mean) \$110,156

Best practice target (no complications) -- 3 days

Lumbar Fusion, lateral (*icd 81.07 - Lumbar fusion, lateral transverse process technique*)

Actual data -- median 3 days; mean 3.8 days (± 0.2); discharges 15,125; charges (mean) \$89,088

Best practice target (no complications) -- 3 days

Back brace, post operative (fusion)

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](#))

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)**