

# Medical Assessments, Inc.

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## Notice of Independent Review Decision

September 11, 2013

### **IRO CASE #:**

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

1 Lumbar Posterior Decompression and Interbody Fusion at L2-L3 and L3-L4 with Pedicle Screw Fixation. 1 Day Inpatient Hospital Stay.

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

The Reviewer is Board Certified in the area of Neurological Surgery with over 16 years of experience.

### **REVIEW OUTCOME:**

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

XX Partially Overturned (Agree in part/Disagree in part)

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:**

11/02/2012: Lumbar X-Rays Post Myelogram  
11/02/2012: CT Lumbar Spine with Contrast  
11/14/2012: EMG/NCS of the lower extremities  
11/26/2012: Follow up  
11/26/2012: Follow up  
12/06/2012: Office Notes  
12/06/2012: Procedure Report  
12/20/2012: Procedure Report  
02/18/2013: Follow up  
03/07/2013: Procedure Report  
04/15/2013: Follow up  
05/13/2013: Follow up

05/30/2013: Procedure Report  
06/13/2013: Evaluation  
06/20/2013: Evaluation  
07/12/2013: UR performed  
07/19/2013: Psychiatric Diagnostic Evaluation  
08/08/2013: UR performed  
08/23/2013: Letter

**PATIENT CLINICAL HISTORY [SUMMARY]:**

The claimant is a male who was originally injured on xx/xx/xx. The injured employee had a previous two-level fusion from L4 through S1 as well as a two-level cervical discectomy and fusion. There were continued back problems which led to the use of a spinal cord stimulator. There have also been several epidural steroid injections over the past several years.

11/02/2012: Lumbar X-Rays Post Myelogram, Impression: 1. Status post L4-L5 Laminectomy and Interbody fusion. 2. 2 MM Retrolisthesis of L2 on L3 and L3 on L4. 3. Moderate L2-3 and mild L3-4 central canal stenosis due to a combination of disc bulges and the retrolisthesis of L2 on L3 and L3 on L4, respectively.

11/02/2013: CT Lumbar Spine with Contrast, Impression: 1. Although difference in technique, no significant interval change since 09/24/2012. 2. Status Post L4-5 and L5-S1 Laminectomy with interbody fusions at L4-5 and L5-S1. 3. Disc bulge at L2-3, in association with 2 mm retrolisthesis of L2 on L3 resulting in mild to moderate central canal stenosis. 4. Disc bulge with 2 mm retrolisthesis of L3 on L4, resulting in mild central canal stenosis. 5. Moderate bilateral L2-3, moderate right and severe left L3-4 neural foraminal narrowing. 6. Severe disc space narrowing at L2-3 and L3-4 associated vacuum disc and endplate sclerosis.

11/14/2012: EMG/NCS of the lower extremities. Electrodiagnostic Impression: The prolonged left peroneal F wave latency and absent bilateral tibial H response are nonspecific, but quite sensitive findings that are certainly compatible with non-denervative radicular affection of the bilateral L5-S1 nerve roots. Needle electromyographic abnormalities are absent and support the lack of significant axonal loss or conduction block. Clinical correlation with lumbar MRI is advised if clinically indicated and not already performed.

11/26/2012: Follow up for bilateral leg pain and difficulty while walking with knees giving away. On physical examination he had grade 4 motor power in the quadriceps bilaterally. Diminished knee jerk bilaterally. Dysesthesias in the L3 and L4 nerve root distribution and femoral nerve root distribution bilaterally. Plan: A selective nerve root block of L3 was recommended.

12/06/2012: Procedure Report, Postoperative Diagnoses: 1. Bilateral lumbar radiculopathy with discogenic low back pain. 2. Bilateral neural foraminal stenosis. Operative Procedure: Bilateral selective nerve root block L3-4

12/20/2012: Procedure Report, Postoperative Diagnosis: Disogenic back pain with lumbar radiculopathy. Operative Procedure: Lumbar epidural steroid injection (caudal approach) with epidurogram.

02/18/2013: Follow up: Claimant was seen two months after lumbar epidural steroid injection. Reported dramatic sustained improvement from the ESI. Pain was gradually beginning to recur. Claimant was beginning to experience his radicular complaints down both legs. Claimant had equivocally positive straight leg raising tests bilaterally from a seated position, decreased range of motion in the lumbar spine, and lumbar paravertebral muscle spasm and tenderness. Claimant was requesting a repeat of the lumbar epidural steroid injection.

03/07/2013: Procedure Report; Postoperative Diagnosis: 1. Discogenic back pain. 2. Post laminectomy syndrome. 3. Lumbar radiculopathy. Operative Procedure: Lumbar epidural steroid injection (caudal approach) with epidurogram.

04/15/2013: Follow up: Claimant reported partial relief of his discomfort and had been able to use his medication a bit more sparingly. Claimant continued with low back pain which radiated into the legs on the basis of failed back syndrome/post-laminectomy syndrome. No sign of tachyphylaxis or abuse of his prescriptions. Physical examination remained unchanged. Renewed claimant's oxycodone at previously prescribed levels. Claimant had no need of renewals for either his monosteroidal anti-inflammatory medication or his breakthrough medicine.

05/30/2013: Procedure Report: Postoperative Diagnosis: Chronic discogenic back pain with lumbar radiculopathy. Operative Procedure: Lumbar Epidural Steroid injection (caudal approach) with epidurogram.

06/13/2013: Evaluation for chronic back and bilateral leg pain with intermittent give-way of his legs. Current medications: Oxycontin, Naproxen, and Cialopram. On physical examination he had a mildly antalgic gait and straight leg raise bothered him mostly in the left leg at 60 degrees. Deep tendon reflexes were minus one and symmetric in the lowers with no focal motor deficit. Assessment: Lumbar spinal stenosis syndrome with grade 1 spondylolysis L2/3 and L3/4. Plan: The claimant is a candidate for posterior lumbar decompression and interbody fusion.

07/12/2013: UR performed; Rationale for Denial: Obviously, there are degenerative and stenotic findings at the levels indicated. There is long-standing pain. There have been conservative treatments; however, this would result in a four-level surgical fusion in the lumbar region. This is a very extensive intervention which would have unknown expectation by way of functional return and comfort return. It certainly would seem to exceed the usual ODG of fusions limited to two levels of pathology as multiple levels of pathology and documented in this spine, even extending above the proposed levels where there is spurring with bulge at T12-L1 and spurring at L1-2. believes that he can help the claimant by extending him to a four level fusion. When asked about smoking cessation,

indicates that he thinks he can convince the individual to stop smoking but this has not yet occurred. No psychological screening has been provided. For these reasons, guidelines remain unsatisfied for medical necessity.

07/19/2013: Psychiatric Diagnostic Evaluation. Summary and Recommendations: Patient reported an average pain level of 5/10 and difficulty in multiple activities of daily living due to this pain condition. He reported minimal depression and anxiety. These symptoms are not expected to interfere with the Lumbar Posterior Decompression and Interbody Fusion at L2-3 and L3-4 with Pedicle Screw Fixation. Overall, the patient appears to be able to proceed with the recommended surgery without negative outcome.

08/08/2013: UR performed. Rationale for Denial: The injured employee had a previous two level fusion from L4 through S1 as well as a two-level cervical discectomy and fusion. There were continued back problems which led to the use of a spinal cord stimulator. There have also been several ESI over the past several years. A CT lumbar myelogram is stated to show significant adjacent segment disease with stenosis and spondylosis of the unoperated L3-L4 level. The injured employee was referred for a psychological evaluation on July 19, 2013, which stated that the injured employee was psychologically able to proceed with lumbar decompression and interbody fusion surgery. Mr. was seen on June 13, 2013, and complained of low back pain radiating to both of his legs. The physical examination noted a mildly antalgic gait, a left-sided straight leg raise at 60degrees, and symmetrical -1 deep tendon reflexes. There was a diagnosis of lumbar spinal stenosis with grade 1 spondylolisthesis of L3-L4. A lumbar decompression surgery and interbody fusion was recommended. While the requesting physician has stated that the injured employee has maximized conservative treatment, there is no mention in any of the medical records that the injured employee has participated in any physical therapy or even a home exercise program. Furthermore, the injured employee is a known smoker, and while he has done well to decrease his smoking he should abstain from smoking for six weeks prior to and during the period of fusion healing to maximize the success of surgery. There has been no mention of the injured employee's abstaining from smoking. Therefore this request is not medically necessary.

08/23/2013: Letter indicating that the claimant has stopped smoking and has continued with Chantix and has done well. It was also reported that the claimant has continued to be on a home exercise program with stretching and walking and that ODG guideline therapy has been exhausted.

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

The previous adverse determinations are partially overturned. This claimant has chronic back and leg pain since a fall xxxx. He has had a course of nerve blocks and ESIs with some relief. He is on Oxycontin, Naproxen, and Celexa for pain control. He apparently has stopped smoking and has no psychological limits to surgery options. The claimant's exam appears concerning

for lumbar claudication causing his legs to give away. This is consistent with the stenosis seen at L2/3 and L3/4 on the Lumbar CT myelogram. I agree the claimant may benefit from a posterior decompression at L2/3 and L3/4 to help his leg symptoms. It is unclear if he is still working and the goal of improved gait endurance may be obtainable. The median length of hospital stay is 1 day for decompression, so the request falls within guidelines.

I don't agree that the claimant meets ODG criteria for an instrumented fusion at L2/3 and L3/4. He has had a prior fusion at L4/5 and L5/S1 and has residual radicular findings on EMG/NCVs of lower extremities. The 2 mm retrolithesis at L2/3 and L3/4 doesn't rise to the 4.5 mm movement criteria of ODG to declare him unstable enough to warrant a fusion. The Lumbar CT myelogram is not read as showing pars defects consistent with spondylolysis and there are no dynamic lumbar studies to confirm significant movement at L2/3 and L3/4. Historically a 4 level fusion has minimal long term pain control benefit, and the ODG doesn't recommend more than a 2 level fusion. The disc degeneration at L2/3 and L3/4 decrease the risk of increased movement with a decompressive laminotomy/ foraminotomy without fusion. The claimant does not have persistent quadriceps weakness or atrophy on his last exam compared to his 11/26/12 exam which suggests that a more limited procedure may be helpful.

Therefore, the request for 1 Lumbar Posterior Decompression at L2-3 and L3-4 with 1 Day Inpatient Hospital Stay is found to be medically necessary, but the request for Interbody Fusion at L2-3 and L3-4 with Pedicle Screw Fixation is not found to be medically necessary at this time.

PER 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) -- *Outpatient*

##### **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*

*Note: About 6% of discharges paid by workers' compensation.*

##### **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*

*Note: About 15% of discharges paid by workers' compensation.*

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

Actual data -- median 3 days; mean 4.2 days ( $\pm 0.2$ ); 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 ( $\pm 0.2$ ); discharges 15,125; charges (mean) \$89,088

Best practice target (no complications) -- *3 days*

#### **ODG Indications for Surgery<sup>TM</sup> -- 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](#) ( $\geq 2$  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).

**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)**