



CLAIMS EVAL

*Utilization Review and
Peer Review Services*

Notice of Independent Review Decision-WCN

DATE OF REVIEW: 12-2-11

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE

Inpatient lumbar laminectomy and discectomy @ L5-S1 63047, 63030

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

American Board of Orthopaedic Surgery-Board Certified

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

- 4-25-11, MD., office visit.
- Physical therapy evaluation on 4-26-11. Physical therapy visits from 4-29-11 through 5-27-11.
- 4-25-11 MD., office visit.
- 5-25-11 MRI of the lumbar spine.
- 5-26-11 MD., office visit.
- 6-3-11 MD., office visit.
- 6-16-11 Lumbar epidural steroid injection at L5-S1 performed by MD.
- 7-1-11 MD., office visit.
- 7-20-11 Lumbar epidural steroid injection performed by MD.
- 7-29-11 MD., office visit.
- 8-16-11 MD., office visit.
- 8-23-11 MD., office visit.
- 9-13-11 MD., office visit.
- 9-19-11 UR performed by MD.
- 9-21-11 MD., provided a letter.
- 10-13-11 UR performed by MD.

PATIENT CLINICAL HISTORY [SUMMARY]:

4-25-11, MD., the claimant reported she injured her lower back two weeks ago after picking up a. On exam, the claimant's reflexes are normal, sensation is normal, strength is normal. SLR is positive on the right. Diagnosis: Lumbar sprain. Recommendations: Physical therapy, prescription for Skelaxin and Ultracet, apply heat three times a day.

Physical therapy evaluation on 4-26-11. Physical therapy visits from 4-29-11 through 5-27-11.

5-25-11 MRI of the lumbar spine shows at the L5-S1 level, a 1-cm right posterolateral broad-based disc protrusion and mild bilateral facet joint hypertrophy primarily impinging the right S1 nerve root within the right L5-S1 lateral recess. The disc is broad based and is also abutting and to a lesser extent impinging the left S1 nerve root in the left L5-S1 lateral recess, as well as the arising bilateral L5 nerve roots in the bilateral L5-S1 neural foramina. Moderate-sized disc space desiccation with endplate degenerative changes are identified. At the L4-5 level, a 1-2-mm diffuse annular disc bulge, asymmetrically more prominent toward the left and mild bilateral facet joint hypertrophy. Mild bilateral facet joint hypertrophy at the L1-2 Level and L3-4 level.

5-26-11 MD., the claimant injured her lower back two weeks ago after picking up a. On exam, the claimant has normal reflexes, muscle strength is normal. Sensation is normal. SLR is positive on the right. The claimant is to continue with physical therapy, prescription for Skelaxin and Ultracet. Consult Dr. for epidural steroid injection.

6-3-11 MD., the claimant complains of low back pain with radiation to the right lower extremity. The pain is worsening recently to the point the claimant's functioning is being impaired. The MRI was reviewed. On exam, SLR was negative on the left and positive on the right. Sensory exam shows deficit in the right L5-S1 dermatome. Impression: Lumbar strain, lumbar HNP, lumbar radiculitis. Plan: lumbar epidural steroid injection on the right at L5-S1.

6-16-11 Lumbar epidural steroid injection at L5-S1 performed by, MD.

7-1-11 MD., the claimant had an epidural steroid injection. She reported 90% improvement after the procedure. The evaluator recommended a second epidural steroid injection.

7-20-11 Lumbar epidural steroid injection performed by MD.

7-29-11 MD., the claimant reported no improvement after the lumbar epidural steroid injection. No significant changes in her physical exam. The evaluator recommended a neurosurgical evaluation.

8-16-11 MD., the claimant had a second epidural steroid injection with little to no effect. Range of motion has remained the same. She has the same radiating pain at the right sciatic distribution. On exam she has muscle spasms at paraspinal muscles, tenderness resolved. DTR are normal, sensation is decreased on right L5 and S1 nerve root distribution persists. Muscle strength is normal. Sitting SLR on the right is positive. Diagnosis: Lumbar sprain. Recommendations: No physical therapy at this time, prescription for Ultracet, consult with spine surgeon, follow up with Dr., continue home exercise program, continue modified duties.

8-23-11 MD., the claimant comes in for a new patient evaluation. She presents for back pain. The pain radiates from the back to right leg. The patient states her pain is right side of low back. She injured her back at work picking up a. She had a MRI that shows a herniated disc. She has back and right leg pain, occasionally left. She has had physical therapy and 2 ESI's without relief. This injury was work related. She is employed as. On exam, reflexes are 1+ at patella, left Achilles 2+ and right Achilles 1+. Sensation shows right paresthesias. SLR is positive on the left. Range of motion is decreased. There is no weakness on exam. Impression: /1 HNP central and paracentral right--no relief with injections PT and time. The MRI was reviewed. Medications: Glucophage, Neurontin, Norco. Plan: she may need a discectomy, but her morbid obesity would increase complication rate. Work status: Light duty.

9-13-11 MD., the claimant is a, right hand dominant female who comes in for a routine follow up visit today. She presents for lumbar pain. The pain radiates from the back to foot. The patient states she feels the same. She is still having pain. She is taking pain medication and muscle relaxers. She went to see Dr. and he recommended surgery. He didn't think any more injections were work since the first two injections did not work. She is still having pain radiating down to her right foot. She is now starting to feel numbness and tingling on the left because of the way she is walking. Sometimes she feels like something is crawling on her leg, but its not. This injury was work related. On exam, there is decreased range of motion at the lumbar spine. There is non-specific pain during the exam. Reflexes are symmetrical and normal bilaterally. Sensory exam shows right paresthesias. Pain with straight leg raise: pain that radiates from back to ankle and positive cross straight leg test. There is no weakness on exam. Impression: large 5/1 HNP central and paracentral right, no relief with injections PT and time. Plan: She has failed all nonoperative treatment and despite her obesity and increased complication rate she wishes to proceed with surgery.

9-19-11 UR performed by MD., notes the medical report dated 9/13/11 indicates that the patient has lumbar pain radiating to the right foot. On physical examination, there is decreased lumbar spine range of motion, normal reflexes, right paresthesia, positive straight leg raising test on the right, and no weakness. MRI showed at the L5-S1 level a 1 centimeters right posterolateral broad-based disc protrusion and mild bilateral facet joint hypertrophy primarily impinging the right S1 nerve root within the right L5-S1 lateral recess, the disc is broad-based and is also abutting and to a lesser extent impinging the left S1 nerve root in the left L5-S1 lateral recess, as well as the exiting bilateral L5 nerve roots la the bilateral L5-S1 neural foramina. Treatment has included medication, ESI, and physical therapy with no relief. However, there is no clear documentation of associated clinical findings such as loss of relevant reflexes, muscle weakness and/or atrophy of appropriate muscle groups, loss of sensation in the corresponding dermatome(s). Therefore, the medical necessity of the request has not been substantiated.

9-21-11 MD., provided a letter. He noted the claimant has been under his care for the injury to her lumbar that occurred on xx/xx/xx. She has a herniated disc and has

sensory loss and paresthesias in a S1 distribution as neurologic evidence of her HNP. The claimant has been going through conservative treatment and is now in need of surgery. Please take this into consideration when evaluating her case.

10-13-11 UR performed by MD. As per medical records, the claimant complains of lumbar pain radiating to the right foot. On physical examination, there is decreased lumbar spine range of motion, normal reflexes, right paresthesia, positive Straight Leg Raise test on the right, and no weakness. The MRI scan of the lumbar spine showed at L5-S1 level, a one centimeters right posterolateral broad-based disc protrusion and mild bilateral facet joint hypertrophy primarily impinging the right S1 nerve root within the right L5-S1 lateral recess, the disc is broad-based and is also abutting and to a lesser extent impinging the left S1 nerve root in the left L5-S1 lateral recess. The records indicate that the claimant has had Physical Therapy in order to address the low back complaints. The Physical Therapy rendered to the claimant was noted. However, the objective response to the pain medications given was not included for review. Furthermore, the clinical information did not provide objective documentation of the claimant's clinical and functional response from the mentioned Epidural Steroid Injection that includes sustained pain relief, increased performance in the activities of daily living and reduction in medication use. Moreover, the record does not indicate that a preoperative psychiatric evaluation has been performed. A psychological evaluation must be initially done and indicate the claimant's realistic expectations for the procedure. With this, the medical necessity of the requested appeal has not been fully established. Determination: This request is not certified.

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

I WOULD AGREE WITH A LUMBAR LAMINECTOMY AND DISCECTOMY AT L5/S1. CONSIDERING THE SIZE OF THE DISC PROTRUSION WITH EXAM FINDINGS AND FAILURE OF RESPONSE TO INJECTIONS, SURGERY WOULD BE INDICATED.

CLAIMANT DOES NOT HAVE MOTOR WEAKNESS, WHICH IS FREQUENTLY SEEN, BUT SHE HAS CONSISTENT CLINICAL COMPLAINTS WITH EXAM FINDINGS TO SUPPORT A LAMINECTOMY AND DISCECTOMY. THEREFORE, THE REQUEST FOR INPATIENT LUMBAR LAMINECTOMY AND DISCECTOMY @ L5-S1 63047, 63030 IS REASONABLE AND MEDICALLY NECESSARY.

ODG-TWC, last update 11-11-11 Occupational Disorders of the Low Back – Laminectomy/Discectomy: Recommended for indications below. Surgical discectomy for carefully selected patients with radiculopathy due to lumbar disc prolapse provides faster relief from the acute attack than conservative management, although any positive or negative effects on the lifetime natural history of the underlying disc disease are still unclear. Unequivocal objective findings are required based on neurological examination and testing. (Gibson-Cochrane, 2000) (Malter, 1996) (Stevens, 1997) (Stevenson, 1995) (BlueCross BlueShield, 2002) (Buttermann, 2004) For unequivocal evidence of

radiculopathy, see AMA Guides. (Andersson, 2000) Standard discectomy and microdiscectomy are of similar efficacy in treatment of herniated disc. (Bigos, 1999) While there is evidence in favor of discectomy for prolonged symptoms of lumbar disc herniation, in patients with a shorter period of symptoms but no absolute indication for surgery, there are only modest short-term benefits, although discectomy seemed to be associated with a more rapid initial recovery, and discectomy was superior to conservative treatment when the herniation was at L4-L5. (Osterman, 2006) The SPORT studies concluded that both lumbar discectomy and nonoperative treatment resulted in substantial improvement after 2 years, but those who chose discectomy reported somewhat greater improvements than patients who elected nonoperative care. (Weinstein, 2006) (Weinstein2, 2006) A recent RCT compared decompressive surgery with nonoperative measures in the treatment of patients with lumbar spinal stenosis, and concluded that, although patients improved over the 2-year follow-up regardless of initial treatment, those undergoing decompressive surgery reported greater improvement regarding leg pain, back pain, and overall disability, but the relative benefit of initial surgical treatment diminished over time while still remaining somewhat favorable at 2 years. (Malmivaara, 2007) Patients undergoing lumbar discectomy are generally satisfied with the surgery, but only half are satisfied with preoperative patient information. (Ronnberg, 2007) If patients are pain free, there appears to be no contraindication to their returning to any type of work after lumbar discectomy. A regimen of stretching and strengthening the abdominal and back muscles is a crucial aspect of the recovery process. (Burnett, 2006) According to a major recent trial, early surgery (microdiscectomy) in patients with 6-12 weeks of severe sciatica caused by herniated disks is associated with better short-term outcomes, but at 1 year, disability outcomes of early surgery vs conservative treatment with eventual surgery if needed are similar. The median time to recovery was 4.0 weeks for early surgery and 12.1 weeks for prolonged conservative treatment. The authors concluded, "Patients whose pain is controlled in a manner that is acceptable to them may decide to postpone surgery in the hope that it will not be needed, without reducing their chances for complete recovery at 12 months. Although both strategies have similar outcomes after 1 year, early surgery remains a valid treatment option for well-informed patients." (Peul-NEJM, 2007) (Deyo-NEJM, 2007) A recent randomized controlled trial comparing decompression with decompression and instrumented fusion in patients with foraminal stenosis and single-level degenerative disease found that patients universally improved with surgery, and this improvement was maintained at 5 years. However, no obvious additional benefit was noted by combining decompression with an instrumented fusion. (Hallett, 2007) A recent British study found that lumbar discectomy improved patients' self-reported overall physical health more than other elective surgeries. (Guilfoyle, 2007) Microscopic sequestrectomy may be an alternative to standard microdiscectomy. In this RCT, both groups showed dramatic improvement. (Barth, 2008) There is consistent evidence that for patients with a herniated disk, discectomy is associated with better short-term outcomes than continued conservative management, although outcomes begin to look similar after 3 to 6 months. This is a decision to be made with the patients, discussing the likelihood that they are going to improve either way but will improve faster with surgery. Similar evidence supports the use of surgery for spinal stenosis, although the outcomes look better with surgery out to about 2 years. (Chou,

2008) Standard open discectomy is moderately cost-effective compared with nonsurgical treatment, a new Spine Patient Outcomes Research Trial (SPORT) study shows. The costs per quality-adjusted life-year gained with surgery compared with nonoperative treatment, including work-related productivity costs, ranges from \$34,355 to \$69,403, depending on the cost of surgery. It is wise and proper to wait before initiating surgery, but if the patient continues to experience pain and is missing work, then the higher-cost option such as surgery may be worthwhile. (Tosteson, 2008) Note: Surgical decompression of a lumbar nerve root or roots may include the following procedures: discectomy or microdiscectomy (partial removal of the disc) and laminectomy, hemilaminectomy, laminotomy, or foraminotomy (providing access by partial or total removal of various parts of vertebral bone). Discectomy is the surgical removal of herniated disc material that presses on a nerve root or the spinal cord. A laminectomy is often involved to permit access to the intervertebral disc in a traditional discectomy.

Patient Selection: Microdiscectomy for symptomatic lumbar disc herniations in patients with a preponderance of leg pain who have failed nonoperative treatment demonstrated a high success rate based on validated outcome measures (80% decrease in VAS leg pain score of greater than 2 points), patient satisfaction (85%), and return to work (84%). Patients should be encouraged to return to their preinjury activities as soon as possible with no restrictions at 6 weeks. Overall, patients with sequestered lumbar disc herniations fared better than those with extruded herniations, although both groups consistently had better outcomes than patients with contained herniations. Patients with herniations at the L5-S1 level had significantly better outcomes than did those at the L4-L5 level. Lumbar disc herniation level and type should be considered in preoperative outcomes counseling. Smokers had a significantly lower return to work rate. In the carefully screened patient, lumbar microdiscectomy for symptomatic disc herniation results in an overall high success rate, patient satisfaction, and return to physically demanding activities. (Dewing, 2008) Workers' comp back surgery patients are at greater risk for poor lumbar discectomy outcomes than noncompensation patients. (DeBerard, 2008) In workers' comp it is recommended to screen for presurgical biopsychosocial variables because they are important predictors of discectomy outcomes. (DeBerard, 2011)

Spinal Stenosis: For patients with lumbar spinal stenosis, standard posterior decompressive laminectomy alone (without discectomy) offers a significant advantage over nonsurgical treatment. Discectomy should be reserved for those conditions of disc herniation causing radiculopathy. (See Indications below.) Laminectomy may be used for spinal stenosis secondary to degenerative processes exhibiting ligamentary hypertrophy, facet hypertrophy, and disc protrusion, in addition to anatomical derangements of the spinal column such as tumor, trauma, etc. (Weinstein, 2008) (Katz, 2008) A comparison of surgical and nonoperative outcomes between degenerative spondylolisthesis and spinal stenosis patients from the SPORT trial found that fusion was most appropriate for spondylolisthesis, with or without listhesis, and decompressive laminectomy alone most appropriate for spinal stenosis. (Pearson, 2010) See also Laminectomy.

Recent Research: Four-year results for the Dartmouth Spine Patient Outcomes Research Trial (SPORT, n= 1244) indicated that patients who underwent standard open

discectomy for a lumbar disc herniation achieved significantly greater improvement than nonoperatively treated patients (using recommended treatments - active physical therapy, home exercise instruction, and NSAIDs) in all primary and secondary outcomes except work status (78.4% for the surgery group compared with 84.4%). Although patients receiving surgery did better generally, all patients in the study improved. Consequently, for patients who don't want an operation no matter how bad their pain is, this study suggests that they will improve and they will not have complications (e.g., paralysis) from nonoperative treatment, but those patients whose leg pain is severe and is limiting their function, who meet the ODG criteria for discectomy, can do better with surgery than without surgery, and the risks are extremely low. (Weinstein2, 2008) In most patients with low back pain, symptoms resolve without surgical intervention. (Madigan, 2009) This study showed that surgery for disc herniation was not as successful as total hip replacement but was comparable to total knee replacement in success. Pain was reduced to within 60% of normal levels, function improved to 65% normal, and quality of life was improved by about 50%. The study compared the gains in quality of life achieved by total hip replacement, total knee replacement, surgery for spinal stenosis, disc excision for lumbar disc herniation, and arthrodesis for chronic low back pain. (Hansson, 2008) For radiculopathy with herniated lumbar disc, there is good evidence that standard open discectomy and microdiscectomy are moderately superior to nonsurgical therapy for improvement in pain and function through 2 to 3 months, but patients on average experience improvement either with or without surgery, and benefits associated with surgery decrease with long-term follow-up. (Chou, 2009) According to a new study, surgery provides better results than non-surgical treatment for most patients with back pain related to a herniated disk, but not for those receiving workers' compensation. (Atlas, 2010) Use of appropriateness criteria to guide treatment decisions for each clinical situation involving patients with low back pain and/or sciatica, with criteria based upon literature evidence, along with shared decision-making, was observed in one prospective study to improve outcomes in low back surgery. (Danon-Hersch, 2010) An updated SPORT trial analysis confirmed that outcomes of lumbar discectomy were better for patients who have symptoms of a herniated lumbar disc for six months or less prior to treatment. Increased symptom duration was related to worse outcomes following both operative and nonoperative treatment, but the relative increased benefit of surgery compared with nonoperative treatment was not dependent on the duration. (Rihn, 2001)

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)

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)