CASEREVIEW

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Notice of Independent Review Decision

DATE OF REVIEW: December 11, 2011

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:
Lumbar myelogram with CT scan

A DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION:
This physician is Board Certified in Orthopedic Surgery with over 40 years of experience.

REVIEW OUTCOME:

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

☒ Overturned (Disagree)

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:
11/04/10: Medical Report by MD
12/08/10: Medical Report by MD
12/09/10: Myelogram Lumbar Spine interpreted by MD
12/09/10: CT Lumbar Spine with contrast interpreted by MD

12/13/10: Medical Report by MD
01/18/11: History and Physical by MD
01/18/11: Operative Report by MD
02/21/11: Medical Report by MD
04/21/11: Medical Report by MD
06/30/11: Medical Report by MD
09/19/11: Medical Report by MD
10/11/11: UR performed by MD
10/18/11: UR performed by MD

PATIENT CLINICAL HISTORY [SUMMARY]:
This claimant was injured 11 years ago on xx/xx/xx while retraining a patient at a. He has undergone a total of four surgical procedures and continues to suffer from mechanical lumbar pain.

On November 4, 2010, the claimant was evaluated by MD. In the report a recent MRI was documented to show a large central and left paracentral disk protrusion at L5-S1 with compression of the thecal sac and nerves. He also had some canal stenosis. There was a posterior pedicle screw and rod fixation from L4 through S1. Dr. diagnosed lumbar disk pathology, post-traumatic, and severe left S1 radiculopathy secondary to disk herniation. A lumbar myelogram and CT was recommended because of his three surgeries with fusion and instrumentation.

On December 8, 2010, Myelogram lumbar spine interpreted by MD. Findings: Post-op changes are present at L4, L5, and S1. No hardware complications are identified. The alignment of the lumbar spine is within normal limits. No fracture or focal bone lesion is present. There are disc spacers at L4/5 and L5/S1. The remaining disc spaces show normal height. Minimal disc bulge is present at L3/4 with extension. There is no disc herniation. There is no spinal stenosis. There are degenerative changes of the facet joints. This results in no significant neural foraminal narrowing.

On December 8, 2010, CT Lumbar Spine with contrast interpreted by MD. Findings: Post-op changes are present at L4, L5, and S1. There are no hardware complications. The alignment of the lumbar spine is normal. The spinal canal is maintained. There is no spinal stenosis or neural foraminal narrowing. No abnormal translational motion is identified with flexion or extension. No fracture or focal bone lesion is present. The disc spaces show normal height, with no evidence of significant degenerative change. The facet joints have minimal degenerative change. No soft tissue abnormality is visible.

On December 13, 2010, the claimant had a follow-up evaluation with Dr. where it was noted he continued to have left leg radicular pain from the sciatic notch area, down the posterolateral aspect of the left leg into the lateral calf and down into the lateral foot. A

left L5-S1 exploration with root decompression and excision of recurrent herniated disk was recommended.

On January 18, 2011, Operative report by MD. Postoperative diagnosis: 1. Status postoperative three lumbar laminectomies, decompressions, fusion, and instrumentation. 2. Chronic mechanical low back disorder. 3. Severe left leg radiating pain secondary to L5 and S1 radiculopathy secondary to large left L5-S1 disk extrusion. 4. Obesity. Procedures: 1. Exploration left lumbosacral region with decompression of L5 and S1 nerve roots with opening of lateral recesses and foraminotomies, recurrent. 2. Excision of left L5-S1 recurrent herniated disk with nerve root decompression.

On February 21, 2011, the claimant had a follow-up evaluation with Dr. who noted complete relief of leg pain 1 month post-op.

On April 21, 2011, the claimant had a follow-up evaluation with Dr. who noted continued relief of leg pain, but he did have mechanical lumbar pain. He walked with a slightly flexed posture at the low back and had some diminished mobility of the low back. Straight leg raise was negative. His Hydrocodone 7.5 mg, Flexeril, Motrin, and Ambien 10 mg were refilled.

On June 30, 2011, the claimant had a follow-up evaluation with Dr. who noted continued mechanical back pain with no radiation into hip or leg. There was no change on physical or neurological examination.

On September 19, 2011, the claimant had a follow-up evaluation with Dr. who reported he was getting worse with increasingly severe low back pain and bilateral hip and leg pain, worse on the right. He was post-op 8 months. He walked with a flexed posture at the low back. He had a right antalgic gait. Straight leg raising was positive bilaterally. Since he was getting worse with numbness, dysesthesias, and weakness in the legs, a lumbar myelogram was requested.

On October 11, 2011, MD performed a UR on the claimant. Rationale for Denial: ODG supports use of CT myelography in cases where MRI is unavailable, contraindicated or inconclusive. Repeat special imaging of the back appears to be medically necessary due to worsening clinical presentation following surgery. However, the provider has not given a rationale for the use of CT myelography rather than the preferred imaging study (MRI).

On October 18, 2011, MD performed a UR on the claimant. Rationale for Denial: In this case, it is unclear why lumbar myelogram is requested instead of a MRI with contrast which is less invasive yet would provide the same diagnostic information. Recommend non-certification of request for lumbar myelogram in light of adding additional risk/injury to the claimant when a less invasive test can be used to achieve the same diagnostic results.

ANALYSIS AND EXPLANATION OF THE DECISION INCLUDE CLINICAL BASIS, FINDINGS AND CONCLUSIONS USED TO SUPPORT THE DECISION:
The previous decisions have been overturned. A lumbar myelogram/CT scan is indicated because of the claimant's previous surgeries with instrumentation. A MRI would not be readable or accurate because of all the metal artifacts that would be present. Repeat imaging of the lumbar with myelogram/CT is medically necessary due to worsening clinical presentation and previous instrumentation.

ODG:

Myelography	Not recommended except for selected indications below, when MR imaging cannot be performed, or in addition to MRI. Myelography and CT Myelography OK if MRI unavailable, contraindicated (e.g. metallic foreign body), or inconclusive. (Slebus, 1988) (Bigos, 1999) (ACR, 2000) (Airaksinen, 2006) (Chou, 2007) Invasive evaluation by means of myelography and computed tomography myelography may be supplemental when visualization of neural structures is required for surgical planning or other specific problem solving. (Seidenwurm, 2000) Myelography and CT Myelography have largely been superseded by the development of high resolution CT and magnetic resonance imaging (MRI), but there remain the selected indications below for these procedures, when MR imaging cannot be performed, or in addition to MRI. (Mukherji, 2009) ODG Criteria for Myelography and CT Myelography: 1. Demonstration of the site of a cerebrospinal fluid leak (postlumbar puncture headache, postspinal surgery headache, rhinorrhea, or otorrhea). 2. Surgical planning, especially in regard to the nerve roots; a myelogram can show whether surgical treatment is promising in a given case and, if it is, can help in planning surgery. 3. Radiation therapy planning, for tumors involving the bony spine, meninges, nerve roots or spinal cord. 4. Diagnostic evaluation of spinal or basal cisternal disease, and infection involving the bony spine, intervertebral discs, meninges and surrounding soft tissues, or inflammation of the arachnoid membrane that covers the spinal cord. 5. Poor correlation of physical findings with MRI studies. 6. Use of MRI precluded because of: a. Claustrophobia b. Technical issues, e.g., patient size c. Safety reasons, e.g., pacemaker d. Surgical hardware
CT (computed tomography)	Not recommended except for indications below for CT. (Slebus, 1988) (Bigos, 1999) (ACR, 2000) (Airaksinen, 2006) (Chou, 2007) Magnetic resonance imaging has largely replaced computed tomography scanning in the noninvasive evaluation of patients with painful myelopathy because of superior soft tissue resolution and multiplanar capability. (Seidenwurm, 2000) The new ACP/APS guideline as compared to the old AHCPR guideline is more forceful about the need to avoid specialized diagnostic imaging such as computed tomography (CT) without a clear rationale for doing so. (Shekelle, 2008) A new meta-analysis of randomized trials finds no benefit to routine lumbar imaging (radiography, MRI, or CT) for low back pain without indications of serious underlying conditions, and recommends that clinicians should refrain from routine, immediate lumbar imaging in these patients. (Chou-*Lancet*, 2009) Primary care physicians are making a significant amount of inappropriate referrals for CT and MRI, according to new research published in the *Journal of the American College of Radiology*. There were high rates of inappropriate examinations for spinal CTs (53%), and for spinal MRIs (35%), including lumbar spine MRI for acute back pain without conservative therapy. (Lehnert, 2010) **Indications for imaging -- Computed tomography:** - Thoracic spine trauma: equivocal or positive plain films, no neurological deficit

	- Thoracic spine trauma: with neurological deficit - Lumbar spine trauma: trauma, neurological deficit - Lumbar spine trauma: seat belt (chance) fracture - Myelopathy (neurological deficit related to the spinal cord), traumatic - Myelopathy, infectious disease patient - Evaluate pars defect not identified on plain x-rays - Evaluate successful fusion if plain x-rays do not confirm fusion (Laasonen, 1989)

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)**