AccuReview
An Independent Review Organization
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Notice of Independent Review Decision

DATE OF REVIEW: JUNE 12, 2011

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE
72148 Lumbar MRI without contrast

A DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION
This reviewer is a Board Certified Orthopedic Surgeon 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
6/24/09: MRI of the Lumbar Spine was performed. Impression: L4-5 and L5-S1 disc lesions.

8/25/09: M.D., an orthopedic surgeon, evaluated the claimant. PE: Muscle spasms noted. ROM is restricted. SLR is positive bilaterally left side greater than right. Sensory is diminished to the left lower extremity. Diagnosis: Displacement Lumbar IVD. Lumbar Radiculitis.

10/21/09: M.D., a pain medicine physician, evaluated the claimant.

11/18/09: M.D. performed a review on the claimant's case. Diagnosis of the Lumbar Spine is that of a strain/sprain only.

3/11/10: D.C. placed the claimant at MMI as of 3/11/10 with a 6% whole person impairment.
7/2/10: MRI of Lumbar Spine was performed. Impression: At L5-S1 mild posterior and moderate left posterolateral foraminal spondylosis and disc protrusion identified. There is mild to moderate left forminal encroachment, without displacement of the exiting left L5 root. At L4-5 a 3 mm broad based

posterior disc protrusion is present causing impression upon the ventral thecal sac. Borderline right and mild left lateral recess stenosis are present at the level of the proximal L5 roots. At L2-3 there is a small doral bulge, without nerve root impingement.
3/24/11: M.D. evaluated the claimant. PE: SLR was negative Dermatomal sensory testing was within normal limits. Assessment: Disc herniations at L4-5 and L5-S1. Bilateral lower extremity radicular-type pain.
3/31/11: Dr. performed an EMG on the claimant. Impression: Findings are consistent with chronic bilateral L5 and S1 root irritation consistent with radiculopathy without evidence of ongoing denervation.
4/20/11: M.D. performed an UR on the claimant. Rationale for Denial: No change in symptomology and claimant has already underwent 2 prior MRIs of the lumbar spine.
5/9/11: M.D performed an UR on the claimant. Rationale for Denial: There have been 2 previous MRIs and no nerve root compression on the last MRI. The claimant has a recent normal neurological exam.

PATIENT CLINICAL HISTORY:
She was injured when she slipped in a puddle of water landing on her left side.

ANALYSIS AND EXPLANATION OF THE DECISION INCLUDE CLINICAL BASIS, FINDINGS AND CONCLUSIONS USED TO SUPPORT THE DECISION.
The previous decisions are upheld. The claimant's condition is unchanged and the claimant has already undergone 2 prior MRIs (Last MRI completed on 7/2/10). Per the ODG there is no indication for a third MRI of the lumbar spine.

Per the ODG:
Recommended for indications below. MRI's are test of choice for patients with prior back surgery. Repeat MRI is not routinely recommended, and should be reserved for a significant change in symptoms and/or findings suggestive of significant pathology (eg, tumor, infection, fracture, neurocompression, recurrent disc herniation). (Bigos, 1999) (Mullin, 2000) (ACR, 2000) (AAN, 1994) (Aetna, 2004) (Airaksinen, 2006) (Chou, 2007) Magnetic resonance imaging has also become the mainstay in the evaluation of myelopathy. An important limitation of magnetic resonance imaging in the diagnosis of myelopathy is its high sensitivity. The ease with which the study depicts expansion and compression of the spinal cord in the myelopathic patient may lead to false positive examinations and inappropriately aggressive therapy if findings are interpreted incorrectly. (Seidenwurm, 2000) There is controversary over whether they result in higher costs compared to X-rays including all the treatment that continues after the more sensitive MRI reveals the usual insignificant disc bulges and herniations. (Jarvik-JAMA, 2003) In addition, the sensitivities of the only significant MRI parameters, disc height narrowing and anular tears, are poor, and these findings alone are of limited clinical importance. (Videman, 2003) Imaging studies are used most practically as confirmation studies once a working diagnosis is determined. MRI, although excellent at defining tumor, infection, and nerve compression, can be too sensitive with regard to degenerative disease findings and commonly displays pathology that is not responsible for the patient's symptoms. With low back pain, clinical judgment begins and ends with an understanding of a patient's life and circumstances as much as with their specific spinal pathology. (Carragee, 2004) Diagnostic imaging of the spine is associated with a high rate of abnormal findings in asymptomatic individuals. Herniated disk is found on magnetic resonance imaging in 9% to 76% of asymptomatic patients; bulging disks, in

20% to 81%; and degenerative disks, in 46% to 93%. (Kinkade, 2007) Baseline MRI findings do not predict future low back pain. (Borenstein, 2001) MRI findings may be preexisting. Many MRI findings (loss of disc signal, facet arthrosis, and end plate signal changes) may represent progressive age changes not associated with acute events. (Carragee, 2006) MRI abnormalities do not predict poor outcomes after conservative care for chronic low back pain patients. (Kleinstück, 2006) 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 magnetic resonance imaging (MRI) 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) Despite guidelines recommending parsimonious imaging, use of lumbar MRI increased by 307% during a recent 12-year interval. When judged against guidelines, one-third to two-thirds of spinal computed tomography imaging and MRI may be inappropriate. (Deyo, 2009) As an alternative to MRI, a pain assessment tool named Standardized Evaluation of Pain (StEP), with six interview questions and ten physical tests, identified patients with radicular pain with high sensitivity (92%) and specificity (97%). The diagnostic accuracy of StEP exceeded that of a dedicated screening tool for neuropathic pain and spinal magnetic resonance imaging. (Scholz, 2009) Clinical quality-based incentives are associated with less advanced imaging, whereas satisfaction measures are associated with more rapid and advanced imaging, leading Richard Deyo, in the Archives of Internal Medicine to call the fascination with lumbar spine imaging an idolatry. (Pham, 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) Degenerative changes in the thoracic spine on MRI were observed in approximately half of the subjects with no symptoms in this study. (Matsumoto, 2010) This large case series concluded that iatrogenic effects of early MRI are worse disability and increased medical costs and surgery, unrelated to severity. (Webster, 2010) Routine imaging for low back pain is not beneficial and may even be harmful, according to new guidelines from the American College of Physicians. Imaging is indicated only if they have severe progressive neurologic impairments or signs or symptoms indicating a serious or specific underlying condition, or if they are candidates for invasive interventions. Immediate imaging is recommended for patients with major risk factors for cancer, spinal infection, cauda equina syndrome, or severe or progressive neurologic deficits. Imaging after a trial of treatment is recommended for patients who have minor risk factors for cancer, inflammatory back disease, vertebral compression fracture, radiculopathy, or symptomatic spinal stenosis. Subsequent imaging should be based on new symptoms or changes in current symptoms. (Chou, 2011) The National Physicians Alliance compiled a "top 5" list of procedures in primary care that do little if anything to improve outcomes but excel at wasting limited healthcare dollars, and the list included routinely ordering diagnostic imaging for patients with low back pain, but with no warning flags, such as severe or progressive neurologic deficits, within the first 6 weeks. (Aguilar, 2011) Owning MRI equipment is a strongly correlated with patients receiving MRI scans, and having an MRI scan increases the probability of having surgery by 34%. (Shreibati, 2011) There is support for MRI, depending on symptoms and signs, to rule out serious pathology such as tumor, infection, fracture, and cauda equina syndrome. Patients with severe or progressive neurologic deficits from lumbar disc herniation, or subjects with lumbar radiculopathy who do not respond to initial appropriate conservative care, are also candidates for lumbar MRI to evaluate potential for spinal interventions including

injections or surgery. For unequivocal evidence of radiculopathy, see AMA Guides. (Andersson, 2000) See also ACR Appropriateness Criteria™. See also Standing MRI.
Indications for imaging -- Magnetic resonance imaging:
- Thoracic spine trauma: with neurological deficit
- Lumbar spine trauma: trauma, neurological deficit
- Lumbar spine trauma: seat belt (chance) fracture (If focal, radicular findings or other neurologic deficit)
- Uncomplicated low back pain, suspicion of cancer, infection, other “red flags”
- Uncomplicated low back pain, with radiculopathy, after at least 1 month conservative therapy, sooner if severe or progressive neurologic deficit.
- Uncomplicated low back pain, prior lumbar surgery
- Uncomplicated low back pain, cauda equina syndrome
- Myelopathy (neurological deficit related to the spinal cord), traumatic
- Myelopathy, painful
- Myelopathy, sudden onset
- Myelopathy, stepwise progressive
- Myelopathy, slowly progressive
- Myelopathy, infectious disease patient
- Myelopathy, oncology patient

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)**