CASEREVIEW

8017 Sitka Street
Fort Worth, TX 76137
Phone: 817-226-6328
Fax: 817-612-6558

Notice of Independent Review Decision

DATE OF REVIEW: January 12, 2012

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:
MRI Lumbar Spine 72148

A DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION:
This physician is Board Certified by American Board of Orthopedic Surgeons 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)

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:
10/18/11: MRI Lumbar Spine interpreted by MD
10/26/11: History & Physical Report #1 from Sports Medicine Centre by, MD
10/27/11: X-rays Lumbosacral Spine interpreted by MD
11/01/11: UR performed by MD
11/01/11: Follow-up Evaluation by MD
11/03/11: Initial Evaluation/Examination at EroRehab PT

11/09/11: History & Physical Report #2 from Sports Medicine Centre by, MD
11/10/11: UR performed by MD
12/01/11: Electromyography Report interpreted by MD
12/05/11: Follow-up Evaluation by MD
12/09/11: History & Physical Report #3 from Sports Medicine Centre by Munir Shah, MD

PATIENT CLINICAL HISTORY [SUMMARY]:
This is a female who was injured on xx/xx/xx while trying to use her leg to push open a door and felt a “thump” in her leg. Since that time, she developed pain in her lower back that radiated into her left leg, posterior thigh and posterolateral calf. She had been evaluated by Dr. who ordered physical therapy, prescribed muscle relaxers, NSAIDS, and pain pills.

On October 18, 2011, a MRI of the lumbar spine revealed: L4/5 degenerative disc disease with 2 mm broad-based annulus bulge and annulus tear. No central canal stenosis is indentified. There is mild bilateral inferior foraminal stenosis.

On October 26, 2011, the claimant was evaluated by MD who reported that she had recently fallen because she stated she couldn’t feel her leg. On physical examination there was no effusion, no tenderness to palpation, normal ROM, no pain with rotation, symmetrical lower extremity strength, and symmetrical normal sensation. She did have positive straight leg raise. The quadriceps and Achilles’ reflexes were difficult to elicit bilaterally. Dr. diagnosed L-S radiculopathy and HNP of the lumbar spine. He recommended x-rays and a MRI of the lumbar spine to R/O HNP on the left. Dr. stated that he recommended a repeat MRI to assess better the claimant’s underlying condition. The previous MRI did not show the disk herniation and it is important to verify the diagnosis before proceeding with further treatment.

On October 27, 2011, x-rays of the lumbosacral spine revealed: Thoracolumbar spondylosis without lumbar vertebral body compression deformity or spondylolisthesis. Lower lumbar facet arthropathy. Hypoplastic ribs at T12.

On November 1, 2011, MD performed a UR on the claimant. Rationale for Denial: The claimant has documented subjective reports of an episode of leg weakness however physical examination does not document clinical deficits or red flags warranting a repeat MRI at this time. Records do not reflect muscular atrophy, weakness or loss of sensation to indicate an acute neurological deficit or change in pathology to warrant a repeat lumbar MRI.

On November 1, 2011, the claimant was re-evaluated by MD who noted she presented with leg pain and sciatica. On physical examination Dr. only noted that she was having some difficulty rising from a seated position and is in a seated position secondary to pain. Dr. diagnosed sciatica and referred her to additional physical therapy. He also kept her off duty and noted she should follow through with repeat MRI of the lumbar spine.

On November 9, 2011, the claimant was re-evaluated by MD who noted she complained of pain radiating down the left posterior leg and posterior thigh, and numbness and tingling of the lower extremity. On physical examination the knee, tibia, calf, ankle and foot were nontender. Straight leg raise was negative. The lower

extremity muscle groups were intact to manual testing. Dr. agreed with Dr.' recommendation to continue physical therapy and if she did not receive relief that would request the repeat MRI of the lumbar spine.

On November 10, 2011, MD performed a UR on the claimant. Rationale for Denial: Records indicate that there was an adverse determination of a previous review. In acknowledgement of the previous non-certification due to lack of documentation of clinical deficits or red flags warranting a repeat MRI at this time, there is now documentation that the patient complains of low back pain. Physical exam revealed positive Straight Leg Raise. MRI of the lumbar spine on 10/18/11 showed degenerative L4-5 disease with a 2mm broad based annulus bulge and annulus tear, with no central stenosis, there is mild bilateral inferior foraminal stenosis (no formal report was submitted for review). Treatment has included medication and physical therapy. However, there is no documentation of a significant change in symptoms and/or findings suggestive of significant pathology. Therefore, the medical necessity of the request has not been substantiated.

On December 1, 2011, an Electromyography report of the left lower extremity revealed: Probable left L5 radiculopathy.

On December 5, 2011, the claimant was re-evaluated by, MD who noted on physical examination mild paraspinous tenderness to palpation in the lumbar structures. She had a positive straight leg raise on the left. Lortab and Lodine prescriptions were refilled. Dr. recommended she follow up with Dr. Strausser to review the EMG/NCV and a re-request of the repeat MRI.

On December 9, 2011, the claimant was re-evaluated by MD who noted she noted she continues to have lower back pain that radiates into her legs. She reported being housebound for 2 months. On physical examination there was a positive straight leg raise. Weakness of the left gastrocnemius and quadriceps was noted. Dr. recommended a repeat MRI of the lumbar spine to better assess the claimant's underlying condition.

ANALYSIS AND EXPLANATION OF THE DECISION INCLUDE CLINICAL BASIS, FINDINGS AND CONCLUSIONS USED TO SUPPORT THE DECISION:
The previous adverse determinations should be upheld. There is no indication of any positive neurological findings on examination. The last exam performed on December 9, 2011 had vague findings of positive straight leg raise and weakness of the left gastrocnemius and quadriceps. There was no report of any reflex changes or sensory loss. On all the other exams, there had been no report of weakness. Straight leg raising had been reported as positive, but not what type of pain she had or at what angle the pain was elicited.

The ODG states that repeat MRI is not routinely recommended and should be reserved for a significant change in symptoms and/or findings suggestive of significant pathology.

There is no documentation of significant pathology or changes since the last MRI, therefore the request for repeat lumbar MRI is denied.

ODG:

MRIs (magnetic resonance imaging)	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) A considerable proportion of patients may be classified incorrectly by MRI for lumbar disc herniation, or for spinal stenosis. Pooled analysis resulted in a summary estimate of sensitivity of 75% and specificity of 77% for disc herniation. (Wassenaar, 2011) (Sigmundsson, 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)**