



**CLAIMS EVAL**

*Utilization Review and  
Peer Review Services*

Notice of Independent Review Decision-WC

**DATE OF REVIEW: 3-30-10**

**IRO CASE #:**

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

MRI of the lumbar spine

**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**

- 9-21-05 MRI of the lumbar spine.
- 10-13-05 CT scan of the lumbar spine.
- 11-9-05 MD., office visit.
- 11-9-05 Surgery performed by Dr..
- 9-13-06, MD., performed a Designated Doctor Evaluation.
- 12-3-08 MRI of the lumbar spine.
- 7-6-09 Trial for peripheral stimulators 2 taps performed by Dr.
- MD., office visits on 9-10-09, 10-29-09, 11-19-09, and 2-16-10. provided a letter.
- 2-19-10 MD., performed a Utilization Review.
- 3-3-10 DO., performed a Utilization Review.

**PATIENT CLINICAL HISTORY [SUMMARY]:**

- MRI of the lumbar spine dated 9-21-05 shows post surgical changes at L4-L5 and L5-S1. There is no evidence of disc herniation or spinal stenosis.
- CT scan of the lumbar spine dated 10-13-05 showed interpediculate screws are noted at L4 and S1 levels. The right and left interpediculate screws at S1 level are projected beyond the anterior margin of the sacrum by 4 mm. There is evidence of previous posterior lateral spinal fusion procedure at L4-L5 and L5-S1. There is fair fusion, but not quite solid, in the left L4-L5 level. There is no evidence of solid fusion in the right L4-L5, right and left L5-S1 posterior lateral elements. At the L4-L5 disc level, there is good interbody fusion in the central aspect.
- On 11-9-05, the claimant was evaluated by, MD., the claimant complained of pain in the lumbosacral spine with intermittent radiculopathy. The claimant sustained injury few months ago and treated conservatively with no relief of the pain. The claimant had lumbosacral surgery and spinal fusion L4 through S1 in 1999 and done very well until this injury. Exam of the lumbar spine showed pain, spastic muscle, and limitation of motion. The claimant has positive SLR bilaterally, weakness of the gastroc-soleus and tibial anterior decreased bilaterally. The claimant was admitted for a diagnosis of rupture of the spinal fusion L5-S1, rule out L4-L5.
- On 11-9-05, the claimant underwent repair rupture of spinal fusion at L5-S1. Removal of instrumentation L4 and S1. Application instrumentation L4 through S1. Donor area left iliac crest. Removal of the battery.
- On 9-13-06, MD., performed a Designated Doctor Evaluation. He certified the claimant had reached MMI and awarded the claimant 5% impairment rating based on DRE Category II.
- MRI of the lumbar spine dated 12-3-08 shows abnormal enhancement of the posterior soft tissues and accumulation of fluid in the posterior soft tissues. Evidence of removal of previous hardware noted at the level of the S1. Findings-suspicious for an infectious process noted in the posterior soft tissues of L5-S1 and L4-5 with accumulation of fluid in the posterior to the posterior elements where the area of the spinal process of L5 was. Abnormal enhancement is appreciated around the soft tissues. The fluid did not enhance. Findings are probably related to an infectious process. The L4-5 show also abnormal enhancement of soft tissues and previous right laminectomy. The remaining levels are unremarkable.
- On 7-6-09, the claimant underwent a trial for peripheral stimulators 2 taps performed by Dr. .
- On 9-10-09, Dr. provided a letter. He noted that the claimant had trial of peripheral nerve stimulator. She has been doing pretty well. No evidence of pain after this procedure was done. She is doing excellent, better than when compared to before and my plan is to schedule her at the Surgery Center at Medical Center and go ahead and proceed with the placement of the percutaneous dorsal column stimulator.
- 10-29-09 MD., the claimant has been seen in the office with a history of severe lower back pain status post a trial with peripheral dorsal column stimulator with alleviation of the symptoms and pain that has gone away 100%. Because the

claimant has a significant relief of the pain and the symptomatology has subsided after the procedure that was done the first time, I will recommend highly for her to have this procedure. I think the claimant will benefit extensively and it will take the pain away.

- 11-19-09 MD., the claimant is status post posterior lumbar interbody fusion and removal of the hardware that has been doing much better after he has removed the hardware. She has a very slow rehabilitation process. The claimant has history of chronic pain after instrumentation performed by Dr. and the pain has not subsided until now and we have removed the hardware and she was provided with therapy. She is still taking Tizanidine 4 mg twice a day and Hydrocodone 10/500 mg at least two tabs every three hours to take the pain away. She still has a lot of muscle tension and a lot of stiffness that she manifest herself as a ball knot that are being formed in the area of the back. She has residual muscle spasms produced by the surgery that was performed on the first time and the surgery was done because of the injury that she sustained at work. She states that she has extremely good relief of the symptomatology when she received massage therapy. The evaluator recommended physical therapy be approved. The claimant has not been able to go back to work due to chronic pain. The evaluator recommended a chronic pain program.
- 2-16-10 MD., the claimant has been followed due to a lumbar disc herniation at the area of the L4-L5 and L5-S1. The claimant has a history of suffering a fall at a store injuring her lower back. She continues to have back pain that does not improve. No numbness in any of the extremities. She has good motor strength in the upper and lower extremities. She has sensation which is adequate. She still has some moderate pain at the area of the lower back that has not gone away. The evaluator recommended discography and possible lumbar decompression to try to resolve and minimize the symptoms that she has and after that consider therapy.
- On 2-19-10, MD., performed a Utilization Review. The reviewer reported he reviewed the clinical information submitted and the ODG guidelines. The evaluator discussed this claimant with Dr.. This request for a repeat Lumbar MRI fails to establish medical necessity as there is no clear documentation of a progressive neurological deficit that would warrant repeat studies. Current evidence-based literature recognizes the use of repeat MRIs in the face of documented neurologic debilitation. The clinical note dated 1-14-10 did not present a complete neurologic examination that would have supported the presence of neurologic indications for the repeat MRI. At this juncture, medical necessity has not been fully supported by the presented clinical data.
- On 3-3-10, DO., performed a Utilization Review. The evaluator reported that based on the clinical information provided, the appeal request for repeal lumbar MRI is not recommended as medically necessary. The claimant is noted to have undergone previous posterior lumbar interbody fusion with subsequent removal of hardware. Records indicate the claimant continues with subjective complaints of low back, but there is no evidence of neurologic deficit with motor and sensory exams intact. The claimant has undergone MRI on 03/19/09. This study reported postsurgical changes at L4-5 seen due to previous laminectomy and discectomy.

There is moderate to marked narrowing of L4-5 and L5-S1 disc spaces with no evidence of recurrent disc herniation and no signs of discitis, vertebral spondylitis, epidural hematoma or neoplastic process. Impression noted postsurgical changes at L4-5 and L5-S1. Per ODG guidelines, repeat MRI is only indicated if there is progression of neurologic deficit. Given the current clinical data, the request for repeat MRI lumbar spine is not indicated as medically necessary.

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

Review of the available medical records and notes claimant has had prior lumbar spine surgery on several occasions. Claimant continues with chronic low back pain. The treating doctor's records do not reflect an abnormal neurological finding in the lumbar spine and lower extremities.

There is no medical reason to repeat a lumbar MRI since her previous lumbar MRI of 03/19/09 only revealed postsurgical changes. Repeating a lumbar MRI would not be helpful in improving the outcome of this chronic low back condition. The ODG treatment guidelines would not support the repeat lumbar spine MRI. Therefore, this request is not reasonable or medically indicated.

**ODG-TWC, last update 3-26-10 Occupational Disorders of the Low Back – MRI:**

Recommended for indications below. MRI's are test of choice for patients with prior back surgery. Repeat MRI's are indicated only if there has been progression of neurologic deficit. (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 controversy 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) 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. 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. (For unequivocal evidence of radiculopathy, see AMA Guides, 5th Edition, page 382-383.) (Andersson, 2000)
- 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)