

CASEREVIEW

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Notice of Independent Review Decision

DATE OF REVIEW: OCTOBER 18, 2011

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE

MRI Lumbar without contrast

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

This physician is Board Certified in Family Medicine with over 13 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

11/4/08: Consultation evaluation at Back Institute by MD
11/12/08: Physical therapy evaluation with PT
12/8/08: Follow-up evaluation with MD
12/15/08: Physical therapy re-evaluation with PT
1/6/09: Follow-up evaluation with MD

1/14/09: Physical therapy re-evaluation with PT
4/1/09: Operative Report by MD
4/7/09: Follow-up evaluation with MD
4/30/09: Physical therapy evaluation at Management by PT
5/19/09: Operative Report by MD
6/2/09: Follow-up evaluation with MD
7/7/09: Operative Report by MD
8/17/09: Follow-up evaluation with MD
10/12/09: Follow-up evaluation with MD
11/10/09: Operative Report by MD
12/2/09: Follow-up evaluation with MD
1/4/10: Medical Record Review by MD
1/29/10: Designated Doctor Evaluation by MD
4/5/10: Follow-up evaluation with MD
4/10/10: Evaluation by MD for a neck injury he sustained on 3/27/10
5/17/10: Follow-up evaluation with MD
6/9/10: Follow-up evaluation with MD
8/3/10: Follow-up evaluation with MD
8/9/11: Follow-up evaluation with MD
8/15/11: MD performed a UR on the claimant
9/6/11: MD performed a UR on the claimant
9/21/11: Follow-up evaluation with MD

PATIENT CLINICAL HISTORY [SUMMARY]:

The claimant is an employee who aggravated his back at work on xx/xx/xxxx.

On November 4, 2008, the claimant had a consultation evaluation at Back Institute by MD for acute low back pain with tingling of the left lower leg and dorsum and plantar aspect of his foot. On physical examination he had some tenderness over the left L5-S1 area. Flexion/extension was slightly limited. He could heel and toe rise normally. EIL and TA were 5/5. Sensation to light touch was normal. Seated root test and straight leg raising were negative. Review of his MRI scan which was dated November 3, 2008 showed evidence of a small disk protrusion on the sagittal images, but more to the left, and on the axial images, there was slight compression of the left S1 nerve root. Diagnosis: Low back with left leg paresthesias to the anterior and posterior lower leg and foot secondary to moving injury at work on October 31, 2008, with a small left-sided focal herniated nucleus pulposus. Plan: He was placed on Mobic as an anti-inflammatory and referred to therapy with McKenzie exercises.

On November 12, 2008, the claimant had a physical therapy evaluation with PT who recommended physical therapy 2-3 times per week for 4-6 weeks.

On December 8, 2008, the claimant had a follow-up evaluation with MD. On physical examination his left Achilles reflex was slightly diminished. Sitting root test was

negative. Plan: Lumbar epidural steroid injection, but the claimant would just like to continue with medications and physical therapy.

On December 15, 2008, the claimant had a physical therapy re-evaluation with PT who recommended continuing physical therapy 2-3 times per week for 4-6 weeks.

On January 6, 2009, the claimant had a follow-up evaluation with MD. On physical examination his left Achilles reflex was slightly diminished and sitting root test was productive of left calf pain. Plan: Lumbar epidural steroid injection and continuation of physical therapy. He continued to work full time in regular duty.

On January 14, 2009, the claimant had a physical therapy re-evaluation with Lindsay Carrio, PT who recommended continuing physical therapy 2-3 times per week for 4-6 weeks.

On April 1, 2009, Operative Report by MD. Postoperative diagnosis: Lumbar radicular syndrome. Procedures: 1. Lumbar myelography without dural puncture. 2. Myelographic interpretation, no radiologist present, with fluoroscopic control. 3. Lumbar epidural steroid administration.

On April 7, 2009, the claimant had a follow-up evaluation with MD. It was reported he had 30% relief of his discomfort following the ESI. Recommendation of an additional epidural steroid injection and continuation of physical therapy.

On April 30, 2009, the claimant had a physical therapy evaluation at Rehab Management by PT who noted that he was last seen in January and was referred back to physical therapy following a lapse in care. She recommended therapy 2-3 times per week for 6 weeks.

On May 19, 2009, Operative Report by MD. Postoperative diagnosis: 1. Low back pain. 2. Lumbar disk herniation with lumbar radicular syndrome. Procedures: Lumbar epidural steroid injection with caudal approach, #2.

On June 2, 2009, the claimant had a follow-up evaluation with MD. It was noted the 2nd ESI helped him and his pain was down to about a 3 to a 4/10. A 3rd and final ESI was recommended. He was also instructed to continue Mobic.

On July 7, 2009, Operative Report by MD. Postoperative diagnosis: 1. Low back pain. 2. Lumbar disk herniation. 3. Lumbar radicular syndrome. Procedures: Caudal epidural steroid injection #3.

On August 17, 2009, the claimant had a follow-up evaluation with MD. It was reported his pain was down to around a 2 or 3 following the 3rd ESI. On physical examination reflexes at the knees and ankles were symmetric. Sitting root test was negative. Plan: Continue doing exercises and discontinue Mobic, replace with over-the-counter Aleve.

On October 12, 2009, the claimant had a follow-up evaluation with MD. It was reported he was still experiencing left-sided low back pain with some pain as well as numbness of the anterior lower shin as well as the bottom of the left foot towards the big toe. On physical examination EHL and TA revealed only equivocal asymmetry of the right EHL. There was tenderness about the left L5-S1 facet almost superior Si area. Plan: Possible repeat an ESI. Operative intervention was also discussed, but the claimant would like to avoid at this time. He was placed back on Mobic.

On November 10, 2009, Operative Report by MD. Postoperative diagnosis: L5-S1 disc herniation with lumbar radicular syndrome. Procedures: Caudal epidural steroid injection.

On December 2, 2009, the claimant had a follow-up evaluation with MD. It was noted that he still had complaints of some buttock pain as well as some pain over the left anterior proximal skin. The claimant felt that he could live with that pain. He was given a refill for the Mobic. Re-evaluation in three months.

January 4, 2010, Medical Record Review by MD.

On January 29, 2010, the claimant was evaluated by MD, a designated doctor. Dr. opined that the claimant had reached maximal medical improvement with a 5% whole person impairment.

On April 5, 2010, the claimant had a follow-up evaluation with MD. It was noted that he started having some pain in the low back, left buttock, and a little bit into the leg and even more into his right foot and therefore was starting to use a little pain medication. On physical examination his reflexes at the knees and ankles were symmetric and sitting root test was negative. His Mobic was refilled.

On April 10, 2010, the claimant was evaluated by MD for a neck injury he sustained on March 27, 2010 when he was pulling up a patient during a CT scan. Physical therapy was recommended.

On May 17, 2010, the claimant had a follow-up evaluation with MD who started him on Neurontin for the burning sensations he was experiencing in his left anterior thigh as well as in his buttocks.

On June 9, 2010, the claimant had a follow-up evaluation with MD. Diagnosis was left buttock with left thigh paresthesias with history of herniated nucleus pulposus at L5-S1 on October 3, 2008. He was encourage to try a dose of Neurontin and to continue Mobic.

On August 3, 2010, the claimant had a follow-up evaluation with MD. It was noted that his back and leg had been hurting him a little bit more. On physical examination his reflexes were still symmetric and sitting root test was negative. Plan: MRI of the lumbar spine to determine whether or not the disk herniation has resolved or gotten worse.

On August 9, 2011, the claimant had a follow-up evaluation with MD. It was noted that he was last seen in October 2010, but since that time had a lung lesion, which he underwent a mediastinoscopy and biopsies. He continued to have neck and low back pain and a new MRI was desired back in October, but was placed on hold due to the lung issues. On physical examination he had normal reflexes. He had decreased sensation involving the posterolateral aspect of the left leg. Manual motor testing was intact. He pointed to L5-S1 as the source of his pain. Plan: A possible injection in his back, but a new MRI is needed.

On August 15, 2011, MD performed a UR on the claimant. Rationale for Denial: Based on the medical records submitted for review there is no indication for lumbar MRI in the absence of neurologic deficits.

On September 6, 2011, MD performed a UR on the claimant. Rationale for Denial: For the described medical situation, Official Disability Guidelines would not support this request to be one of medical necessity, as there is no documentation of any new changes on neurological examination.

On September 21, 2011, the claimant had a follow-up evaluation with MD. It was reported that he was still having the left-sided low back and leg symptoms and it was felt that they were getting worse. On physical examination he had 2+ patellar and Achilles tendon reflexes. He had some decreased sensation involving the right posterior leg, but he stated that palpation on the left lateral leg feels colder than the right. He had slightly decreased plantar flexion on the left. Sitting root test causes some left buttock and thigh pain. Plan: He does appear to have progressive neurologic deficit and therefore they will resubmit for a lumbar MRI.

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

Based on medical records submitted for review, denial of the request for MRI is upheld. Rationale: (1) There is no documented severe progressive neurologic deficit demonstrated (2) Repeat MRI for the purpose of documenting resolution of herniated disk (Aug 3, 2010) is not an indication supported by the Official Disability Guidelines (3) There is no evidence that conservative measures/treatment trial was performed to address symptoms (Aug 9-Sept 21, 2011) prior to requesting imaging (4) Clinically, on the last medical record entry (Sept 21, 2011), although changes described in the record as "slight" appear to be present; reflexes are normal, sensory deficits are generalized and "cool extremities" may suggest alternative diagnoses. Per ODG, "Repeat MRI should be reserved for a significant change in symptoms and/or findings suggestive of significant pathology (eg, tumor, infection, fracture, neurocompression, recent disc herniation)."

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 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](#)) 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)