

CASEREVIEW

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

Notice of Independent Review Decision

[Date notice sent to all parties]: October 23, 2014

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:

MRI Thoracic and Lumbar Spine w/o contrast

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

This physician is Board Certified in Physical Medicine and Rehabilitation with over 18 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 medical necessity exists for each of the health care services in dispute.

PATIENT CLINICAL HISTORY [SUMMARY]:

The claimant is a male who was injured on xx/xx/xx.

On November 6, 2013, the claimant presented with sharp low back pain that had received no improvement from PT. On physical examination there was tenderness and spasm of the thoracolumbar spine. ROM was restricted. There was weakness of the lower extremities and SLR was positive on the left at 30 degrees. Plan: Continue medication and refer to Pain Management.

On November 27, 2013, recommended an EMG of the lower extremities.

On December 12, 2013, recommended a CT myelogram.

On January 3, 2014, the claimant presented with continued severe, sharp, low back pain with complaints of lower extremity weakness. It was noted the CT

myelogram was denied. On physical examination there was tenderness and spasm of the thoracolumbar spine, restricted ROM, weakness of the lower extremities, positive SLR on the left at 30 degrees. EMG was negative. Plan: Refer for possible rhizotomy.

On May 23, 2014, the claimant presented with low back pain and left leg numbness globally in his left leg from his buttock, anterior posterior thigh, anterior posterior lower leg and entire left foot. He stated the pain was worse with prolonged sitting, standing and even rest and prolonged positions. He stated he had to change the way he walked due to the instability. He also noted he had been getting dizzy when getting out of his shower and at different times as well. He also related to having decreased coordination and balance problems. He described his pain as 10/10 overall. It was reported he had failed all conservative care including medication therapy, physical therapy over a period of several weeks and also lumbar facet injection via pain management with only one to two days of relief. He was reported to have been seen who recommended he be seen by a neurologist for further evaluation of his left lower extremity paresthesias, but he has yet to be seen by one. On physical examination he had 5/5 strength in bilateral upper and lower extremities. Significant antalgic gait. Decreased tandem walking with eyes open and then even worse tandem walking with eyes closed. Deep tendon reflexes were brisk in the bilateral biceps and triceps and right patella and right Achilles 2+ and significant hyperreflexia along the left patella and left Achilles tendon. Significant clonus in the bilateral ankles left significantly worse than the right. Positive Hoffmann test bilaterally. Decreased sensation to light touch along the left lower leg. Decreased lumbar range of motion in all planes secondary to pain. Positive Spurling test bilaterally causing radiating pain into his low back and buttock region. Imaging Studies: Six views of the lumbar spine revealed good disk heights and mild endplate sclerosis and facet arthropathy no other significant osseous abnormalities present. Standing AP of the pelvis showed mild degenerative changes of the bilateral hip joints. A MRI of the lumbar spine showed facet fluid at the L4-L5 level on the right side otherwise no significant signs of stenosis (no date). No instability seen on flexion-extension dynamic x-rays done today. EMG/NCV bilateral lower legs by doctor showed a normal EMG on December 26, 2013. Impression: 1. Lumbar radiculopathy, left leg. 2. Lumbar strain. 3. Cervical myelopathy on exam today and by clinical history. Discussion: 1. Strongly recommended to follow up with a neurologist for further evaluation on his cervical myelopathy. 2. Recommended to obtain the cervical spine, thoracic spine, and lumbar spine MRI for further evaluation of his pain and to evaluate for possible myelomalacia.

On July 17, 2014, the claimant presented with worsening pain. It was noted he had been placed at MMI with a 0% IR. A MRI of the thoracic and lumbar spine was recommended.

On July 30, 2014, the claimant presented with severe constant pain that radiated down his left leg. On exam he had an antalgic gait and was stooped over a walker. He had tenderness and spasm of the thoracolumbar spine. ROM was restricted. He had weakness of the left lower extremities. SLR was positive.

Plan: Continue Lortab, MRI of the thoracic and lumbar spine and EMG/NCV of the lower extremities.

On August 11, 2014, the claimant presented with severe, extreme, constant pain. There had been no improvement over the last year. He reported he can't sleep or get comfortable. On physical examination there continue to be tenderness and spasm of the thoracolumbar spine with weakness of the lower extremities. SLR was positive on the left at 15 degrees.

On August 15, 2014, UR. Rationale for Denial: The Official Disability Guidelines state that repeat MRI is to routinely recommended and should be reserved for a significant change in symptoms and/or findings suggestive of significant pathology. There is a lack of documented evidence to indicate that the patient's physical examination findings have changed significantly since the previous MRI. There is also a lack of documented evidence to indicate that the patient has a severe or progressive neurologic deficit. Therefore, the medical necessity of a repeat MRI has not been established at this time. I discussed the case who had no additional clinical information to provide. As such, the request for an MRI of the thoracic and lumbar spine without contrast is non-certified.

On September 8, 2014, in a Letter of Reconsideration, reported that all conservative care had been exhausted including physical therapy, medications, off work, light duty and ESI. That the claimant had been living in severe, constant and chronic pain daily for more than a year. He has not improved whatsoever. He is taking Hydrocodone with minimal relief. Physical exam reveals tenderness, spasm, decreased ROM and weakness to the lower extremities. He has all the signs and symptoms of disk herniations of the spine. He cannot feel his left leg and foot. The pain radiates from his low back down his left posterior thigh. He rates the pain a 10 out of 10. All testing is positive for disk problems including straight leg raise on the left at 15 degrees, flip test, femoral stretch test, squat test, sciatic notch test and heel-toe test. is asking for approval of the diagnostic tests so that he can identify the source of the claimant's verifiable pain.

On September 11, 2014, UR. Rationale for Denial: A review of the provided documents does not demonstrate a progressive neurological deficit. Although there are reports of 10/10 pain physiological measurements are not commiserate with pain at this level. There is a reported positive SLR at 15 degrees but this would not be physiologic. Even with a large herniated disc, the SLR would not be positive until 25-30 degrees. There are no documented reflex changes or dermatomal sensory losses. The Official Disability Guidelines state that repeat MRI is not routinely recommended and should be reserved for a significant change in symptoms and/or findings suggestive or significant pathology. There is a lack of documented evidence to indicate that the patient's physical examination findings have changed significantly since the previous MRI. There is also a lack of documented evidence to indicate that the patient has a severe or progressive neurologic deficit. I discussed the case, but he was unable to provide any objective evidence of a progressive deficit. Therefore, the medical necessity of a repeat MRI has not been established at this time.

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

Denial of thoracic and lumbar MRI's without contrast is UPHELD/AGREED UPON. There is no documented thoracic trauma or neurological deficit attributable to a thoracic level. There is no documentation of significant change in pain and no documentation of change in neurological exam suggestive of a change in pathology since the previous lumbar MRI. Therefore, the request for MRI Thoracic and Lumbar Spine w/o contrast is found to not be medically necessary.

PER ODG:

MRIs (magnetic resonance imaging)

Recommended for indications below. MRI's are test of choice for patients with prior back surgery, but for uncomplicated low back pain, with radiculopathy, not recommended until after at least one month conservative therapy, sooner if severe or progressive neurologic deficit. 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 annular 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) Accurate terms are particularly important for classification of lumbar disc pathology from imaging. (Fardon, 2001) Among workers with LBP, early MRI is not associated with better health outcomes and is associated with increased likelihood of disability and its duration. (Graves, 2012) 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) MRI with and without contrast is best test for prior back surgery. (Davis, 2011) See also [ACR Appropriateness Criteria™](#). See also [Standing MRI](#).

Recent research: More than half of requests for MRI of the lumbar spine are ordered for indications considered inappropriate or of uncertain value, pointing to evidence of substantial overuse of lumbar spine MRI scans. For family physicians, only 34% of their MRI scans were considered appropriate vs 58% of those ordered by other specialties. On the other hand, the vast majority of MRIs ordered for headaches, 83%, were deemed appropriate. (Emery, 2013) This study casts doubt on the value of

post-op spinal imaging for patients with sciatica, because it could not distinguish those with a favorable clinical outcome from those with persistent symptoms. Disk herniation was visible in 35% of patients with a favorable outcome and in 33% with an unfavorable outcome, and nerve root compression was present in 24% of those with a favorable outcome and in 26% of those with an unfavorable outcome. They concluded that the MRI scan does not have any discriminatory power at all. Irrelevant findings have the potential to frighten patients and initiate cascades of unnecessary testing or intervention, with occasional risks. The study showed that neither a herniated disk nor the presence of scar tissue on MRI was associated with patient outcome, but these findings may lead to unnecessary further imaging and surgery. (el Barzouhi, 2013) A *JAMA* article on worsening trends for low back treatment found that there was an escalation in the use of MRI or CT, from 7.2% in 1999 to 11.3% in 2010, while imaging in the acute care setting provides neither clinical nor psychological benefit to patients with routine back pain. The general feeling among physicians was that patients may equate getting MRIs with being synonymous with good medical care, which could drive doctors to try to improve patient satisfaction. (Mafi, 2013)

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)**