INDEPENDENT REVIEWERS OF TEXAS, INC.

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Notice of Independent Review Decision

DATE OF REVIEW: 01/23/12

IRO CASE NO.:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:

Item in dispute: MRI of the lumbar spine

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

Board Certified Pain Medicine

REVIEW OUTCOME

Upon independent review, the reviewer finds that the previous adverse determination/adverse determination should be:

Upheld

INFORMATION PROVIDED TO THE IRO FOR REVIEW

1. Initial consultation Dr. 02/07/11
2. CT scan lumbar spine 04/05/02
3. X-rays lumbar spine 02/07/11
4. Office procedure left L4-5, L5-S1 hardware block 04/25/11
5. Right L4-5, L5-S1 05/06/11
6. Office notes Dr. 07/13/11 through 12/22/11
7. Telephone conference at carrier's request memo Dr. 07/21/11
8. Electrodiagnostic results 07/28/11
9. Utilization review determination 11/29/11
10. Reconsideration/appeal of adverse determination 12/28/11
11. Office notes Dr. 08/19/11
12. ***Official Disability Guidelines***

PATIENT CLINICAL HISTORY (SUMMARY):

The patient is a male whose date of injury is xx/xx/xx. Records indicate he fell off of a loading dock onto his buttocks area causing his initial injury. The patient was noted to be status post lumbar fusion performed in 1997. X-rays of the lumbar spine performed 02/07/11 reported solid fusion at L4-5 and L5-S1. There was no instability with flexion and extension views. Mild hardware was in good position. Mild degenerative endplate spurring was present. Facet arthrosis was also noted. The patient complained of severe and persistent low back pain and underwent diagnostic hardware block on 04/25/11 at left L4-5 and L5-S1. Patient reported almost completed pain relief for a week following the procedure. A right sided hardware block was performed on 05/06/11. This injection decreased his pain for three days. Electrodiagnostic testing was performed on 07/28/11 and revealed no evidence of lumbar radiculopathy, although bilateral S1 radiculitis could not be completely ruled out. The patient was seen by Dr. on 08/19/11 for evaluation of ongoing back and leg pain. He reported 60% low back pain and 40% leg symptoms. On examination the claimant was noted to be 5'10" tall and 220 pounds. Gait analysis revealed normal heel strike toe off gait pattern. He could heel and toe walk without difficulty. Examination of the lumbar spine noted tenderness to palpation of the paraspinous region bilaterally around L4-5 and L5-S1. There was a midline scar noted. Bilateral sacroiliac joint pain also was noted. There was mild pain to forward flexion to around 30 degrees, more pain with extension and side bending at five to ten degrees. Neurological exam noted positive straight leg raise and Lasegue's testing on the right and negative on the left. Faber and femoral stretch test were negative bilaterally. Deep tendon reflexes were 2+ at the knees and ankles bilaterally. There was decreased sensation along the right lateral, shin and lateral foot. Ankle clonus and Babinski were negative. Motor strength was 5/5 except 4/5 weakness right gastrocsoleus. It was noted that the patient underwent hardware blocks and had around 70% relief for three or four days with the injection on the left and no relief with injection to the right. Dr. recommended proceeding with MRI of the lumbar spine to evaluate for adjacent segment disease.

A request for MRI of the lumbar spine was reviewed on 11/29/11 and the reviewer did not recommend approval for the requested repeat imaging study. The reviewer noted that the patient stated to have continued lumbar pain. EMG/NCV of 07/28/11 did not show radiculopathy. Previous plain films and imaging studies showed fusion. The request would not be consistent with ***Official Disability Guidelines***. There was no information from the provider to justify the procedure.

A reconsideration/appeal request for repeat lumbar MRI was reviewed on 12/28/11 and an adverse determination was rendered. The non-certification rationale was based upon the following reasons: there was an indication that the claimant is being considered for surgery, but the records did not clearly establish spinal surgeon's findings or recommendations including type of surgery being planned as well as rationale for updated MRI at this time; the records did not establish objective evidence on physical examination of a recent progressive neurologic deficit such as a myotomal or dermatomal deficit; it appears that the claimant was having an exacerbation; however, the medical records did not establish that conservative treatment has been recently utilized such as physical therapy or acupuncture, or the careful selection and titration of safe and effective dosages of analgesic adjuvants for neuropathic pain. The reviewer noted that during peer to peer discussion Dr. said the MRI of the lumbar spine was requested because the claimant was referred to an orthopedic surgeon Dr. who was being considered for a redo surgery. He stated the claimant had worsening pain and radiculopathy that was not getting better and he was taking lots of narcotics. He noted the claimant has not had an MRI since 04/05/02.

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

The proposed MRI of the lumbar spine is not supported as medically necessary by the clinical data submitted for review. The claimant is noted to have sustained an injury over 15 years ago when he fell off a loading dock and injured his lumbar spine. Claimant underwent lumbar fusion at L4-5 and L5-S1 in 1997. X-rays of the lumbar spine performed 02/07/11 revealed solid fusion at both L4-5 and L5-S1 with hardware in good position. The claimant was noted to complain of low back pain, and diagnostic hardware blocks were performed. There is conflicting information regarding the effectiveness of these injections. According to Dr. the left hardware block provided nearly complete pain relief for a week and right sided injections provided decreased pain for three to four days, not otherwise quantified. Dr. indicates that left sided injections provided 70% relief for three or four days, with no relief with right sided injections. Examination by Dr. on 08/19/11 reported 5/5 motor strength except 4/5 right gastrocsoleus, positive straight leg raise on the right, and decreased sensation along the right lateral thigh, shin and lateral foot. However there is no indication that this is a new or progressive change. Electrodiagnostic testing performed 07/28/11 revealed no evidence of lumbar radiculopathy. There is no clear indication that the claimant is a candidate for further surgical intervention and the request for MRI of the lumbar spine is not indicated as medically necessary.

A DESCRIPTION AND THE SOURCE OF THE SCREENING CRITERIA OR OTHER CLINICAL BASIS USED TO MAKE THE DECISION

Official Disability Guidelines low back chapter

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