DATE OF REVIEW: September 30, 2009

IRO Case #:

Description of the services in dispute:

1. Lumbar & Cervical MRI denied on 8/20/09, 7/17/09, and 6/19/09.

A description of the qualifications for each physician or other health care provider who reviewed the decision

The clinician who provided this review is a licensed chiropractor. This reviewer is a member of the American Chiropractic Association. This reviewer has been in active practice since 1985.

Review Outcome

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

Upheld

Based on review of all submitted documentation and current medical literature the requested cervical and lumbar MRI studies are not medically necessary.

Information provided to the IRO for review

Received from Texas Department of Insurance:
1) Peer Review Referral Form, 1 page.
2) Request for IRO dated 09/04/09, 4 pages.
3) Request for review form dated 09/04/2009, 3 pages.
4) Correspondence dated 07/17/2009, 08/20/2009, 09/10/2009, 6 pages.
Received from Provider:
Initial report dated 06/10/2009, 2 ages.
Daily notes dated 06/10/2009, 3 pages
New patient questionnaire dated 06/10/2009, 3 pages.
History and examination form dated 06/10/2009, 4 pages.
Initial Consultation Report dated 06/16/2009, 6 pages

Range of Morion report dated 06/23/2009, 3 pages
Follow up consultation dated 07/02/2009, 5 pages.
Texas Workers Compensation Status Report dated DWC 73 dated 08/10/2009, 09/09/09, 10/07/2009, 3 pages
Physician Progress Report dated 07/10/09, 08/10/09, 09/09/09 3 pages
X-ray Reports dated 07/21/2009, 3 pages
Received from Insurance Carrier:
Correspondence dated 09/16/2009, 1 page
Patient information and initial evaluation dated 06/05/2009, 3 pages.
Physician Progress Report dated 06/10/09, 07/10/09, 8/10/09 3 pages
New patient questionnaire dated 06/10/2009, 5 pages.
Initial Consultation Report dated xx/xx/xx, 6 pages
Order for MRI dated 06/19/09, 1 page
Range of Morion report dated 06/23/2009, 3 pages
Follow up consultation dated 07/02/2009, 5 pages.
X-ray Reports dated 07/21/2009, 3 pages
Letter regarding rationale for MRI request dated 08/03/2009, 2 pages.
Prior reviews dated 07/17/09 08/19/2009, 09/10/2009, 11 pages.
Correspondence from the Texas Department of Insurance dated 09/14/2009, 1 page.

Patient clinical history [summary]

The claimant is a male with occupational injury of xx/xx/xx. His presenting complaints on 06/10/2009 were neck pain, right knee pain, and low back pain. The severity was rated 10/10. Vitals were reported as unremarkable. Antalgia was reported with gait. The past medical history was unremarkable. Upper extremity motor testing was unremarkable and reported as 5+/5+. All documented total reflexes were normal and reported as 2+. Several orthopedic test were reported as positive; however, there was no description of provocation response. Tenderness was reported at C5 - T5. A spasm was reported at the same levels. Active range of motion (AROM) was reported as restricted in cervical spine, lumbar spine, and right knee. A consultation report dated 06/16/2009 reported no neurological deficits on examination. A consultation diagnosis was low back pain. Cervical, lumbar, and right humerus x-rays failed to report any acute processes.

Analysis and explanation of the decision include clinical basis, findings and conclusions used to support the decision.

The reviewed documentation failed to establish medical necessity for the requested diagnostic studies. There was no document of neurological deficits by the requester or consulting physicians reports. Lumbar plain film failed to identify Chance fracture. There is no documentation of suspicion of cancer or infection. There is no history of lumbar surgery or Cauda equina syndrome.

There is no documentation of myelopathy. Therefore none of the inclusion criteria have been met for medical necessity of spinal MRI. Per ODGs "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". Please refer to ODG citations for all inclusion criteria for spinal MRI.

A description and the source of the screening criteria or other clinical basis used to make the decision:

1 Web Based ODGs for Low Back Regarding 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 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) 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

- 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

2) Web Based ODGs for Neck & Upper Back Regarding MRI: Not recommended except for indications list below. Patients who are alert, have never lost consciousness, are not under the influence of alcohol and/or drugs, have no distracting injuries, have no cervical tenderness, and have no neurologic findings, do not need imaging. Patients who do not fall into this category should have a three-view cervical radiographic series followed by computed tomography (CT). In determining whether or not the patient has ligamentous instability, magnetic resonance imaging (MRI) is the procedure of choice, but MRI should be reserved for patients who have clear-cut neurologic findings and those suspected of ligamentous instability. (Anderson, 2000) (ACR, 2002) See also ACR Appropriateness Criteria™. MRI imaging studies are valuable when physiologic evidence indicates tissue insult or nerve impairment or potentially serious conditions are suspected like tumor, infection, and fracture, or for clarification of anatomy prior to surgery. MRI is the test of choice for patients who have had prior back surgery. (Bigos, 1999) (Bey, 1998) (Volle, 2001) (Singh, 2001) (Colorado, 2001) For the evaluation of the patient with chronic neck pain, plain radiographs (3-view: anteroposterior, lateral, open mouth) should be the initial study performed. Patients with normal radiographs and neurologic signs or symptoms should undergo magnetic resonance imaging. If there is a contraindication to the magnetic resonance examination such as a cardiac pacemaker or severe claustrophobia, computed tomography myelography, preferably using spiral technology and multiplanar reconstruction is recommended. (Daffner, 2000) (Bono, 2007)

Indications for imaging -- MRI (magnetic resonance imaging):

- Chronic neck pain (= after 3 months conservative treatment), radiographs normal, neurologic

signs or symptoms present

- Neck pain with radiculopathy if severe or progressive neurologic deficit

- Chronic neck pain, radiographs show spondylosis, neurologic signs or symptoms present

- Chronic neck pain, radiographs show old trauma, neurologic signs or symptoms present

- Chronic neck pain, radiographs show bone or disc margin destruction

- Suspected cervical spine trauma, neck pain, clinical findings suggest ligamentous injury (sprain), radiographs and/or CT "normal"

- Known cervical spine trauma: equivocal or positive plain films with neurological deficit