

**IRO REVIEWER REPORT TEMPLATE -WC**

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**Notice of Independent Review Decision**

**Date notice sent to all parties:**

January 22, 2013

**IRO CASE #:**

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

APPEAL Cervical MRI w/o contrast 72141; APPEAL Thoracic MRI w/o contrast 72146

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

Board Certified Orthopedic Surgeon (Joint)

**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.

**INFORMATION PROVIDED TO THE IRO FOR REVIEW:**

Clinical notes dated 08/07/11, 08/29/11, 09/15/11, 09/16/11, 09/27/11, 10/10/11,

10/11/11, 11/03/11, 11/08/11, 11/10/11, 11/14/11, 11/18/11, 01/03/12, and 11/12/12

CT of the pelvis dated 09/28/11

MRI of the lumbar spine dated 10/05/11

Previous utilization reviews dated 11/16/12 and 12/04/12

**PATIENT CLINICAL HISTORY [SUMMARY]:**

The patient is a male who reported an injury to his mid and low back. The clinical note dated 08/07/11 details the patient complaining of a burning sensation in the epigastric region. No nausea or vomiting was noted. The clinical note dated 08/29/11 details the patient complaining of trouble with urination. The patient complained of a burning sensation. The patient also noted pain in the right testicular area radiating to the right side of the groin. Upon exam, palpable tenderness was noted at the right testicle up through the spermatic cord and into the lower groin region. No hernia was noted. The note details the patient having undergone a urinary analysis which revealed unremarkable findings. The patient was treated with antibiotic therapy at that time. Per clinical note dated 09/15/11, the patient stated that the initial injury occurred when he was struck by a pipe in the lower abdomen. The patient was initially diagnosed with epididymitis and provided with antibiotic therapy. The patient continued with complaints of dysuria. The clinical note dated 09/16/11 details the patient continuing with testicular pain. The clinical note dated 09/27/11 details the patient continuing with right sided inguinal pain. The patient continued with urination issues. The CT scan of the pelvis dated 09/29/11 revealed no evidence of abnormalities. MRI of the lumbar spine dated 10/05/11 revealed discogenic and spondylitic changes at the L4-5 and L5-S1 region producing no significant central canal stenosis. Mild to moderate bilateral foraminal stenosis was noted at L5-S1 contacting the undersurface of the L5 nerve root. Clinical note dated 10/10/11 details the patient complaining of minimal pain upon palpation over the lumbosacral spine. The patient was able to demonstrate 5/5 strength in the lower extremities. Reflexes were noted to be intact. The clinical note dated 10/11/11 details the patient presenting for a follow-up. The patient was recommended for further testing of urology as the mild stenosis noted at L5-S1 was not noted to indicate additional problems. The patient did have continued complaints of urinary incontinence. The clinical note dated 11/03/11 details the patient utilizing Uroxatral and the patient was noted to be undergoing urodynamic studies. The patient was continuing with dysuria, frequency, and a weak stream. The clinical note dated 11/08/11 details the patient continuing with tenderness to palpation in the right testicular region. The clinical note dated 11/10/11 details the patient continuing with complaints of frequency and dysuria. The note details the patient undergoing a cystometrogram which revealed a cystometric capacity of 354 ml. The patient reported urgency at a volume of 566 ml. The clinical note dated 11/18/11 details the patient presenting for a follow-up regarding the urodynamic study. The findings suggested an outlet obstruction which was noted to be consistent with his symptoms. The clinical note dated 01/03/12 details the patient complaining of lower

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extremity pain. Pain was also noted to continue at the right inguinal region. The note details the patient having undergone electrodiagnostic studies which revealed normal findings. The clinical note dated 11/12/12 details the patient continuing with low back and lower extremity pain that was rated as 6/10. The note details the patient having been diagnosed with benign prostatic hyperplasia. The patient was able to demonstrate 4/5 strength at the iliopsoas muscle. Upon exam, the patient was noted to have issues rising from a seated position. Hypersensitivity was noted upon skin pinch in the lumbar spine.

The previous utilization review dated 11/16/12 resulted in a denial for MRI of the cervical and thoracic spine secondary to a lack of information regarding the patient's specific symptomology related to the cervical and thoracic spine. Additionally, no information was submitted regarding the patient's history of conservative treatment, specifically related to the cervical and thoracic complaints.

The utilization review dated 12/04/12 resulted in a denial secondary to a lack of significant objective symptomology related to the cervical or thoracic spines. Additionally, there is a lack of information regarding the patient's completion of recent conservative treatments specifically related to the cervical and thoracic complaints.

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

The request for a cervical and thoracic MRI is non-certified. The documentation submitted for review elaborates the patient complaining of right-sided inguinal and low back pain. The Official Disability Guidelines recommend a MRI of the cervical spine provided the patient meets specific criteria to include significant symptomology specifically related to the cervical region and completion of 3 months of conservative treatments with normal radiographs. There is a lack of information regarding the patient's neurologic symptomology specifically related to the cervical spine. Additionally, there is a lack of information regarding the patient's conservative treatment history regarding any cervical complaints. Given the lack of information regarding the patient's significant symptomology in the cervical spine, the lack of information regarding the patient's significant radiograph findings, and the lack of information regarding the patient's completion of 3 months of conservative treatments, the request for MRI of cervical spine is non-certified.

The request for a thoracic MRI without contrast is non-certified. The Official Disability Guidelines recommend a MRI of the thoracic spine provided the patient meets specific criteria to include significant symptomology related to the thoracic

region. There is a lack of information regarding the patient's neurologic deficits specifically related to the thoracic spine. Given the lack of information regarding the patient's symptomology related to the thoracic region, this request does not meet guideline recommendations. As such, the documentation submitted for this review does not support the request at this time.

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

#### **X MEDICAL JUDGEMENT, CLINICAL EXPERIENCE, AND EXPERTISE IN ACCORDANCE WITH ACCEPTED MEDICAL STANDARDS**

- 1.) Muchow RD, Resnick DK, Abdel MP, et al. Magnetic resonance imaging (MRI) in the clearance of the cervical spine in blunt trauma: A meta-analysis. J Trauma. 2008;64(1):179-189.
- 2.) Cho R, Fu R, Carrino J, et al. Imaging strategies for low-back pain: Systematic review and meta-analysis. Lancet. 2009;373:463-472.

#### **ODG- OFFICIAL DISABILITY GUIDELINES & TREATMENT GUIDELINES**

Neck and Upper Back Chapter:

Magnetic resonance imaging (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. 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). (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
- Upper back/thoracic spine trauma with neurological deficit

Low Back Chapter:

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 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

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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) 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