

# IRO Express Inc.

An Independent Review Organization

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Notice of Independent Review Decision

**DATE OF REVIEW:** MAY 22, 2008

**IRO CASE #:**

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

MRI of Cervical Spine and Lumbar Spine

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

Doctor of Medicine (M.D.)

Board Certified in Orthopaedic Surgery

**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)

**INFORMATION PROVIDED TO THE IRO FOR REVIEW**

OD Guidelines

Denial Letters 3/24/08 and 4/8/08

Medical Records from 3/12/08 thru 4/30/08

**PATIENT CLINICAL HISTORY [SUMMARY]:**

The injured employee suffers from chronic low back pain with occasional radicular symptoms. He has an old injury that has recently gotten worse. Physical exam shows evidence of severe stenosis in the cervical spine with upper extremity weakness and atrophy. Lumbar exam shows evidence of L4,5 radiculopathy and degenerative disc disease.

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

As stated above and a careful review of the all records shows that MRI scans of both the lumbar and cervical regions are appropriate at this time. This is based on ODG guidelines, peer reviewed medicine, and clinical experience.

<p>Magnetic resonance imaging (MRI)</p>	<p>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. (<a href="#">Anderson, 2000</a>) (<a href="#">ACR, 2002</a>) See also <a href="#">ACR Appropriateness Criteria™</a>. 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. (<a href="#">Bigos, 1999</a>) (<a href="#">Bey, 1998</a>) (<a href="#">Volle, 2001</a>) (<a href="#">Singh, 2001</a>) (<a href="#">Colorado, 2001</a>) 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. (<a href="#">Daffner, 2000</a>) (<a href="#">Bono, 2007</a>)</p> <p><b>Indications for imaging -- MRI (magnetic resonance imaging):</b></p> <ul style="list-style-type: none"> <li>- Chronic neck pain (= after 3 months conservative treatment), radiographs normal, neurologic signs or symptoms present</li> <li>- Neck pain with radiculopathy if severe or progressive neurologic deficit</li> <li>- Chronic neck pain, radiographs show spondylosis, neurologic signs or symptoms present</li> <li>- Chronic neck pain, radiographs show old trauma, neurologic signs or symptoms present</li> <li>- Chronic neck pain, radiographs show bone or disc margin destruction</li> <li>- Suspected cervical spine trauma, neck pain, clinical findings suggest ligamentous injury, radiographs and/or CT "normal"</li> <li>- Known cervical spine trauma: equivocal or positive plain films with neurological deficit</li> </ul>
<p>MRI's (magnetic resonance imaging)</p>	<p>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. (<a href="#">Bigos, 1999</a>) (<a href="#">Mullin, 2000</a>) (<a href="#">ACR, 2000</a>) (<a href="#">AAN, 1994</a>) (<a href="#">Aetna, 2004</a>) (<a href="#">Airaksinen, 2006</a>) (<a href="#">Chou, 2007</a>) 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. (<a href="#">Seidenwurm, 2000</a>) 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. (<a href="#">Jarvik-JAMA, 2003</a>) 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. (<a href="#">Videman, 2003</a>) Imaging studies are used most practically as confirmation studies once a</p>

	<p>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. (<a href="#">Carragee, 2004</a>) 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%. (<a href="#">Kinkade, 2007</a>) Baseline MRI findings do not predict future low back pain. (<a href="#">Borenstein, 2001</a>) 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. (<a href="#">Carragee, 2006</a>) MRI abnormalities do not predict poor outcomes after conservative care for chronic low back pain patients. (<a href="#">Kleinstück, 2006</a>) 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. (<a href="#">Shekelle, 2008</a>) 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 <a href="#">ACR Appropriateness Criteria™</a>. See also <a href="#">Standing MRI</a>.</p> <p>Indications for imaging -- Magnetic resonance imaging:</p> <ul style="list-style-type: none"> <li>- Thoracic spine trauma: with neurological deficit</li> <li>- Lumbar spine trauma: trauma, neurological deficit</li> <li>- Lumbar spine trauma: seat belt (chance) fracture (If focal, radicular findings or other neurologic deficit)</li> <li>- Uncomplicated low back pain, suspicion of cancer, infection</li> <li>- 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.) (<a href="#">Andersson, 2000</a>)</li> <li>- Uncomplicated low back pain, prior lumbar surgery</li> <li>- Uncomplicated low back pain, cauda equina syndrome</li> <li>- Myelopathy (neurological deficit related to the spinal cord), traumatic</li> <li>- Myelopathy, painful</li> <li>- Myelopathy, sudden onset</li> <li>- Myelopathy, stepwise progressive</li> <li>- Myelopathy, slowly progressive</li> <li>- Myelopathy, infectious disease patient</li> <li>- Myelopathy, oncology patient</li> </ul>
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**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)