



## Medical PA Criteria Document

Medical Procedure Class:	<b>MRI of Lumbar Spine</b>
Date:	May 1, 2007
Updated:	April 28, 2009

### Executive Summary

<b>Purpose:</b>	To identify and discourage the inappropriate use of high tech, high cost diagnostic imaging.
<b>Why was this Issue Selected:</b>	<p>The indiscriminate use of expensive imaging exams for common and uncomplicated clinical presentations of the back and spine, e.g. low back pain, have contributed to the perception of low value from these studies and to the high costs in managing these conditions.</p> <p>Patients with normal radiographic results (plain film X-rays) and no neurologic signs or symptoms will usually require no further imaging. However, patients with normal radiographic results and positive neurologic signs or symptoms may require MR imaging.</p>
<b>Procedures subject to Pre-Certification</b>	<ul style="list-style-type: none"> <li>• 72148 Magnetic resonance imaging (eg, proton), spinal canal and contents, lumbar; without contrast material</li> <li>• 72149 Magnetic resonance imaging (eg, proton), spinal canal and contents, lumbar; with contrast material(s)</li> <li>• 72158 Magnetic resonance imaging (eg, proton), spinal canal and contents, without contrast material, followed by contrast material(s) and further sequences, lumbar</li> </ul>

<b>Setting &amp; Population:</b>	All Medicaid fee-for-service patients
----------------------------------	---------------------------------------

<b>Type of Criteria:</b>	<input type="checkbox"/> <b>Increased risk of ADE</b> <input checked="" type="checkbox"/> <b>Appropriate Indications</b>	<input type="checkbox"/> <b>Non-Preferred Agent</b> <input type="checkbox"/>
--------------------------	---	---

<b>Data Sources:</b>	<input type="checkbox"/> <b>Only administrative databases</b>	<input checked="" type="checkbox"/> <b>Databases + Prescriber-supplied</b>
----------------------	---	--

## Setting & Population

- Procedure Group for review: MRI of Lumbar Spine
- Common Diagnostic Indications: Pain, radiculopathy, new or progressive neurologic symptoms or deficits.
- Clinical Studies: Have demonstrated that *uncomplicated* acute low back pain is a benign, self-limited condition that does not warrant any imaging studies.
- Considerations: Unless contraindicated, MRI is the preferred modality for most lumbar spine imaging over CT, except for a few indications such as evaluation of suspected fracture or fracture follow-up.
- Age range: All patients

## Approval Criteria

**Patients with any of the following diagnostic indications for MRI of the Lumbar Spine, which may include supporting clinical information:**

- Persistent pain or radiculopathy, with > 6 weeks of conservative therapy and inadequate response to treatment. Note: children may not require 6 weeks
- New or progressive neurologic symptoms or deficits, e.g. motor or sensory loss attributable to lumbar spine pathology
- Signs or symptoms of spinal cord or nerve root compression, e.g. from disc herniation or spinal stenosis
- Multiple Sclerosis or other demyelinating diseases or myelopathies
- Infectious or inflammatory processes
- Possible spinal cord injury and post-traumatic neurologic deficit
- Post-operative evaluation, with new neurologic findings
- Tumor evaluation, for suspected or documented lesions
- Cauda Equina Syndrome, which may present with bilateral radiculopathy, saddle anesthesia, bowel or bladder dysfunction
- Fracture evaluation, for suspected or known fracture

## Approval Diagnoses (Appendix A)

Condition	Submitted ICD-9 Diagnoses	CPT	Date Range	Client Approval (Initials)
Persistent pain or radiculopathy with > 6 weeks of conservative therapy and inadequate response to treatment.	720.0 – 724.9, 729.2, 781 – 781.99, 782	62311, 97530, 97810 – 97814, 98925 – 98929, 98940 – 98942	12 months	
New or progressive neurologic symptoms or deficits (motor/sensory loss) attributable to Lumbar spine pathology	720.0 – 724.9, 729.2, 781 – 781.99, 782	NA	12 months	
Signs or symptoms of spinal cord or nerve root compression (disc herniation/spinal stenosis)	720.0 – 724.9, 729.2, 781 – 781.99, 782	NA	12 months	
Multiple sclerosis or other demyelinating diseases or myelopathies	340, 341 – 341.9	NA	12 months	
Infectious or inflammatory processes	730.9	NA	12 months	
Possible spinal cord injury and post-traumatic neurological deficit	952.2, 952.3, 952.4, 952.9, 952.9	NA	12 months	
Post-operative evaluation, with new neurologic findings	720.0 – 724.9, 729.2, 781 – 781.99, 782	NA	12 months	
Tumor evaluation, for suspected or documented lesions	170, 192.2, 192.3, 192.8, 192.9, 198.3, 198.4, 213.2, 225.3, 225.4, 225.8, 225.9, 237.5	NA	12 months	
Cauda Equina Syndrome, which may present with bilateral radiculopathy, saddle anesthesia, bowel or bladder dysfunction	344.6 – 344.61	NA	12 months	
Fracture evaluation, for suspected or known fracture	805.4 – 805.7, 806.4 – 806.79	NA	12 months	
Other and Unspecified Prion Disease of the Central Nervous System	046.79	NA	12 months	

## Denial Criteria

Requests will be denied if patient has none of the above diagnostic indications for MRI of the Lumbar Spine. Some of these requested exams may be approvable upon the submission of appropriate supporting clinical information.

- For most patients with acute low back pain, diagnostic imaging, including plain radiographs, is usually unnecessary

- Adding to the controversy, nonspecific lumbar disc abnormalities are common, and can be demonstrated readily on MRI even in asymptomatic patients
- Has not had a Lumbar Spine X-ray in the last 60 days
- Have had a CT or MRI of the Lumbar Spine in the last 180 days

## References

1. Acute low back problems in adults: assessment and treatment. Agency for Health Care Policy and Research. Clin Pract Guide Quick Ref Guide Clin 1994; (14)iii-iv:1-25.
2. Florida medical practice guidelines for low back pain or injury. State of Florida Agency for Health Care Administration; 1996; Tallahassee, Florida.
3. Ren XS, Selim AJ, Fincke G., et al. Assessment of functional status, low back disability, and use of diagnostic imaging in patients with low back pain and radiating leg pain. J Clin Epidemiol 1999; 52(11):1063-1071.
4. Staiger TO, Paauw DS, Deyo RA, Jarvik JG. Imaging studies for acute low back pain. When and when not to order them. Postgrad Med 1999; 106(4): 161-162, 165-166, 171-172.
5. Jarvik JG. Imaging of adults with low back pain in the primary care setting. Neuroimaging Clin N Am 2003; 13(2):293-305.
6. Gilbert FJ, Grant AM, Gillan MG, et al. Does early imaging influence management and improve outcome in patients with low back pain? A pragmatic randomised controlled trial. Health Technol Assess 2004; 8 (17):iii,1-131.
7. Jarvik JG, Hollingworth W, Martin B, et al. Rapid magnetic resonance imaging vs radiographs for patients with low back pain: a randomized controlled trial. JAMA 2003; 289(21):2810-2818.
8. Hitzelberger WE, Witten RM. Abnormal myelograms in asymptomatic patients. J Neurosurg 1968; 28(3): 204-206.
9. Wiesel SW, Tsourmas N, Feffer HL, et al. A study of computer-assisted tomography. I. The incidence of positive CAT scans in an asymptomatic group of patients. Spine 1984; 9(6):549-551.
10. Boden SD, Davis DO, Dina TS, et al. Abnormal magnetic-resonance scans of the lumbar spine in asymptomatic subjects. A prospective investigation. J Bone Joint Surg Am 1990; 723:403-408.
11. Jensen MC, Brant-Zawadzki MN, et al. Magnetic resonance imaging of the lumbar spine in people without back pain. N Engl J Med 1994; 331(2):69-73.
12. Jackson RP, Lain JE, Jacobs RR, et al. The neuroradiographic diagnosis of lumbar herniated nucleus pulposus: II. A comparison of computed tomography (CT), myelography, CT-myelography, and magnetic resonance imaging. Spine 1989; 14(12):1362-1367.
13. Kent DL, Haynor DR, Larson EB, Deyo RA. Diagnosis of lumbar spinal stenosis in adults: a meta-analysis of the accuracy of CT, MR, and myelography. AJR 1992; 158(5):1135-1144.