



Medical PA Criteria Document

Medical Procedure Class:	MRI of Cervical Spine
Date:	May 1, 2007
Updated:	July 28, 2009

Executive Summary

Purpose:	To identify and discourage the inappropriate use of high tech, high cost diagnostic imaging	
Why was this Issue Selected:	<p>The indiscriminate use of expensive imaging procedures for common and uncomplicated clinical presentations of the back and spine, e.g. chronic neck 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>	
Procedures subject to Pre-Certification	<ul style="list-style-type: none"> • 72141 Magnetic resonance imaging, spinal canal and contents, cervical; without contrast material • 72142 Magnetic resonance imaging, spinal canal and contents, cervical; with contrast material(s) • 72156 Magnetic resonance imaging, spinal canal and contents, without contrast material, followed by contrast material(s) and further sequences, cervical. 	
Setting & Population:	All Medicaid fee-for-service patients	
Type of Criteria:	<input type="checkbox"/> Increased risk of ADE <input checked="" type="checkbox"/> Appropriate Indications	<input type="checkbox"/> Non-Preferred Agent <input type="checkbox"/>
Data Sources:	<input type="checkbox"/> Only administrative databases	<input checked="" type="checkbox"/> Databases + Prescriber-supplied

Setting & Population

- Procedure Group for review: MRI of Cervical Spine
- Common Diagnostic Indications: Pain, radiculopathy, new or progressive neurologic symptoms or deficits.
- Considerations: Unless contraindicated, MRI is the preferred modality for most cervical 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 Cervical Spine, which may include supporting clinical information:

- Persistent pain or radiculopathy, with > 6 weeks of conservative therapy and inadequate response to treatment
- New or progressive neurologic symptoms or deficits, e.g. motor or sensory loss attributable to cervical 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
- Fracture evaluation for suspected or known fracture.

Approval Diagnoses (Appendix A)

Condition	Submitted ICD-9 Diagnoses	CPT	Date Range
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	61055, 62310, 97530, 97810 - 87814, 98925 - 98929, 98940 - 98942	12 months
New or progressive neurologic symptoms or deficits (motor/sensory loss) attributable to Cervical 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

Condition	Submitted ICD-9 Diagnoses	CPT	Date Range
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 - 952.09, 952.8, 952.9	NA	12 months
Other and Unspecified Prion Disease of the Central Nervous System	046.79	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
Fracture evaluation, for suspected or known fracture	805 - 805.18, 806.0 - 806.19	NA	12 months

Denial Criteria

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

- For patients with chronic neck pain and the absence of neurologic signs and symptoms, plain radiographs should usually be the initial study performed in their evaluation
- Has not had a Cervical Spine X-ray in the last 60 days
- Have had a CT or MRI of the Cervical Spine in the last 180 days

References

1. Van Der Donk J, Schouten JS, Passchier J, et al. The associations of neck pain with radiological abnormalities of the cervical spine and personality traits in a general population. *J Rheumatol* 1991; 18(12):1884-1889.
2. Gore DR, Sepic SB, Gardner GM, Murray MP. Neck pain: a long-term follow-up of 205 patients. *Spine* 1987; 12(1):1-5.
3. Robinson DD, Cassar-Pullicino VN. Acute neck sprain after road traffic accident: a long-term clinical and radiological review. *Injury* 1993; 24(2): 79-82.
4. Ohnmeiss DD, Guyer RD, Mason SL. The relation between cervical discographic pain responses and radiographic images. *Clin J Pain* 2000; 16(1):1-5.
5. Tong C, Barest G. Approach to imaging the patient with neck pain. *J Neuroimaging* 2003; 13:5-16.

6. Mirvis SE, Diaconis JN, Chirico PA, et al. Protocol-driven radiologic evaluation of suspected cervical spine injury: efficacy study. *Radiology* 1989; 170(3Pt1): 831-834.
7. McNamara RM, Heine E, Esposito B. Cervical spine injury and radiography in alert, high-risk patients. *J Emerg Med* 1990; 8(2):177-182.
8. MacDonald RL, Schwartz ML, Mirich D, et al. Diagnosis of cervical spine injury in motor vehicle crash victims: how many x-rays are enough? *J Trauma* 1990; 30:392-397.
9. Vandemark RM. Radiology of the cervical spine in trauma patients: practice pitfalls and recommendations for improving efficiency and communication. *AJR* 1990; 155(3): 465-472.
10. Roberg RJ, Wears RC. Evaluation of neck discomfort, neck tenderness and neurologic deficits as indicators for radiography in blunt trauma victims. *J Emerg Med* 1992; 10(5):539-544.
11. Hoffman JR, Schriger DL, Mower W, et al. Low-risk criteria for cervical – spine radiography in blunt trauma: a prospective study. *Ann Emerg Med* 1992; 21(12):1454-1460.
12. Vaccaro AR, Kreidl KO, Pan W, et al. Usefulness of MRI in isolated upper cervical spine fractures in adults. *J Spinal Discord* 1998; 11(4):289-293.