Cohere Medicare Advantage Policy - Magnetic Resonance Imaging (MRI), Lumbar Spine

Clinical Policy for Medical Necessity Review

Version: 1.1
Cohere Health UMC Approval Date: October 2, 2025
Last Annual Review: Not Applicable
Revision: November 19, 2025
Next Annual Review: October 2, 2026

Important Notices

Notices & Disclaimers:

GUIDELINES ARE SOLELY FOR COHERE'S USE IN PERFORMING MEDICAL NECESSITY REVIEWS AND ARE NOT INTENDED TO INFORM OR ALTER CLINICAL DECISION-MAKING OF END USERS.

Cohere Health, Inc. ("**Cohere**") has published these clinical guidelines to determine the medical necessity of services (the "**Guidelines**") for informational purposes only, and solely for use by Cohere's authorized "**End Users**". These Guidelines (and any attachments or linked third-party content) are not intended to be a substitute for medical advice, diagnosis, or treatment directed by an appropriately licensed healthcare professional. These Guidelines are not in any way intended to support clinical decision-making of any kind; their sole purpose and intended use is to summarize certain criteria Cohere may use when reviewing the medical necessity of any service requests submitted to Cohere by End Users. Always seek the advice of a qualified healthcare professional regarding any medical questions, treatment decisions, or other clinical guidance. The Guidelines, including any attachments or linked content, are subject to change at any time without notice. This policy may be superseded by existing and applicable Centers for Medicare & Medicaid Services (CMS) statutes.

Other Notices:

Policy Information:

Specialty Area: Diagnostic Imaging
Policy Name: Cohere Medicare Advantage Policy - Magnetic Resonance Imaging (MRI), Lumbar Spine
Type: [**X**] Adult (18+ yo) | [**X**] Pediatric (0-17 yo)

Table of Contents

Medical Necessity Criteria

Service: Magnetic Resonance Imaging (MRI), Lumbar Spine

Related CMS Documents

Please refer to CMS Medicare Coverage Database for the most current applicable CMS National Coverage.[1-3]

- National Coverage Determination (NCD) Magnetic Resonance Imaging (MRI) (220.2)
- Local Coverage Determination (LCD) Lumbar MRI (L34220)
  - Billing and Coding: Lumbar MRI (A57206)

Description

Magnetic resonance imaging (MRI) is a versatile imaging technique that operates on the interaction between radiofrequency electromagnetic fields and specific atomic nuclei in the body, typically hydrogen nuclei, following exposure to a powerful magnetic field. This method allows for the discrimination between normal and abnormal tissues, offering a highly sensitive diagnostic tool for detecting diseases. The effectiveness of MRI stems from the notable contrast inherent in various tissues, both healthy and diseased, owing to differences in their magnetic relaxation properties. MRI of the spine is the preferred imaging modality for pain, radiculopathy, or neurological symptoms. This includes clinical suspicion of cancer, infection, autoimmune disease, persistent symptoms following six weeks of conservative management, or new or worsening symptoms with a history of spine surgery.[4]

Contrast should be used at the discretion of the ordering clinician, with guidance from the radiologist as needed. Common indications for administering contrast for an MRI of the spine include infection, prior spine surgery, demyelinating diseases, or tumor. A detailed patient history and indication will ensure the appropriate region is covered when ordering an MRI of the spine. For many patients with neck or back pain, symptoms resolve

after a trial of conservative treatment without performing imaging, especially patients with low back pain.[5]

Medical Necessity Criteria

Indications

Magnetic resonance imaging (MRI), lumbar spine is considered appropriate if **ANY** of the following is **TRUE**[2]:

- Patient history and physical examination reveal the existence of **ANY** of the following "red flag" conditions:
  - Suspected tumor; **OR**
  - Infection; **OR**
  - Herniated intervertebral disc with nerve compression; **OR**
  - Major neurological problem; **OR**
  - Major trauma; **OR**
  - Minor trauma in patient with potential osteoporosis; **OR**
  - History of cancer; **OR**
  - Fever; **OR**
  - Chills; **OR**
  - Unexplained weight loss; **OR**
  - Recent bacterial infection; **OR**
  - Intravenous drug abuse; **OR**
  - History of immune suppression; **OR**
  - Pain that worsens when supine at night; **OR**
  - Saddle anesthesia; **OR**
  - Recent onset of bladder dysfunction; **OR**
  - Clinically significant or progressive neurologic deficit in the lower extremity; **OR**
  - Unexpected laxity of the anal sphincter; **OR**
  - Perianal or perineal sensory loss; **OR**
  - Clinically significant motor weakness; **OR**
  - Other nerve root compromise; **OR**
- Evaluation of a known "red flag" condition to determine need for surgery or other aggressive therapy; **OR**
- **ALL** of the following:
  - Symptoms are not suggestive of a "red flag" condition; **AND**
  - Symptoms persist despite at least 4 weeks of conservative management; **OR**

- To clarify inconclusive findings on a computed tomography (CT) scan; **OR**
- Repeat imaging (defined as a repeat request following recent imaging of the same anatomic region with the same or similar modality) will be considered reasonable and necessary if **ALL** of the following are **TRUE**:
  - There are no established guidelines; **AND**
  - **ANY** of the following:
    - There are new or worsening symptoms not addressed in the guidelines, such that repeat imaging would influence treatment; **OR**
    - There is need for a one-time clarifying follow-up of a prior indeterminate finding; **OR**
    - In the absence of change in symptoms, there is an established need for monitoring which would influence management.

Non-Indications

Magnetic resonance imaging (MRI), lumbar spine is not considered appropriate if **ANY** of the following is **TRUE**[2]:

- The patient has undergone advanced imaging of the same body part within 3 months without undergoing treatment or developing new or worsening symptoms[6]; **OR**
- **ALL** of the following[2]:
  - **ANY** of the following:
    - Uncomplicated degenerative disc disease; **OR**
    - Herniated nucleus pulposus; **AND**
  - Surgery or other aggressive intervention (e.g. intervertebral joint injection) are not under consideration; **OR**
- For measurement of blood flow[2]; **OR**
- For purposes of spectroscopy[2]; **OR**
- Cortical bone and calcification is being imaged[2]; **OR**
- Spatial resolution of bone or calcification is required for a procedure[2].

*NOTE: MRI in patients with claustrophobia should be requested at the discretion of the ordering provider.
**NOTE: MRI in pregnant patients should be requested at the discretion of the ordering provider and obstetric care provider.

Level of Care Criteria

Inpatient or Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
72148	Magnetic resonance imaging (MRI) (e.g., proton), spinal canal and contents, lumbar; without contrast material
72149	Magnetic resonance imaging (MRI) (e.g., proton), spinal canal and contents, lumbar; with contrast material(s)
72158	Magnetic resonance imaging (MRI) (e.g., proton), spinal canal and contents, without contrast material, followed by contrast material(s) and further sequences; lumbar

Disclaimer: S Codes are non-covered per CMS guidelines due to their experimental or investigational nature.

Evaluation of Clinical Harms and Benefits

Clinical determinations for Medicare Advantage beneficiaries are made in accordance with 42 CFR 422.101 guidance outlining CMS's required approach to decision hierarchy in the setting of NCDs/LCDs identified as being "not fully established". When clinical coverage criteria are "not fully established" Medicare Advantage organizations are instructed to create publicly accessible clinical coverage criteria based on widely-accepted clinical guidelines and/or scientific studies backed by a robust clinical evidence base. Clinical coverage criteria provided by Cohere Health in this manner include coverage rationale and risk/benefit analysis.

The potential clinical harms of using these criteria for magnetic resonance imaging of the lumbar spine may include[10]:

- The use of contrast agents (e.g., gadolinium-based contrast agents) may have adverse effects including nausea, headache, and pain at the site of injection. Rarely, patients experience hives, itchy eyes, or other allergic reactions to the contrast material.
- Dynamic magnetic fields during MRI scanning create loud knocking noises which may harm hearing if adequate ear protection is not used. They may also cause peripheral muscle or nerve stimulation that may feel like a twitching sensation.
- MRI scanning could lead to heating of the body, particularly during long MRA scans, due to radiofrequency energy used in the procedure.
- Increased healthcare costs and complications from the inappropriate use of emergency services and additional treatments.

The clinical benefits of using these criteria for magnetic resonance imaging of the lumbar spine may include:

- MRI of the spinal canal allows for the non-invasive visualization of the spinal cord.[2]
- Compared to computed tomography (CT) and radiography, MRI provides improved evaluation of soft tissue pathology. MRI of the soft tissues in the cervical spine is typically indicated when there is neurologic deficit or clinical suspicion of a vascular abnormality following trauma. Pulse sequence, a short-tau inversion-recovery sequence in MRI, can highlight undetected fractures, bone bruising, and tumors using fat suppression.[11]

- MRI without and with contrast of the affected spine segment is the initial diagnostic test of choice when spinal infection is clinically suspected. The sensitivity, specificity, and accuracy of MRI in spine infection are 96%, 94%, and 92%, respectively.[12]
- MRI allows timely diagnosis and treatment for spine emergencies. Traumatic spine injury classification systems provide an algorithm for clinical decision-making. Diagnostic considerations for atraumatic spine emergencies are broad, and MRI is the first line imaging modality for detecting compressive pathology.[7]
- Enhanced overall patient satisfaction and healthcare experience.

Medical Evidence

Mathieu and Talbott (2022) assessed the use of magnetic resonance imaging (MRI) in spinal emergencies. As an adjunct to CT, MRI has proven to be most valuable when additional imaging is necessary to assess spinal stability or compromise of neural elements. Vessel wall imaging techniques and MRA may also be utilized in cases of blunt traumatic cerebrovascular injury, mainly when findings from CTA are inconclusive. The American College of Radiology (ACR) has established guidelines outlining the appropriateness of MRI usage in various clinical scenarios related to spinal injuries and emergencies. MRI is considered 'usually appropriate' for patients with confirmed or suspected spinal cord or nerve root injuries.[7]

Suri et al. (2021) reported on a randomized control trial (RCT) that investigated the impact of inserting epidemiological benchmarks into lumbar spine imaging reports as part of the Lumbar Imaging with Reporting of Epidemiology (LIRE) trial. The trial analyzed secondary outcomes, focusing on subsequent nonsurgical and surgical procedures involving the thoracolumbosacral spine and sacroiliac joints. The study included 238,886 adult patients who underwent lumbar diagnostic imaging between 2013 and 2016. Results indicated that including epidemiological benchmarks (the 'LIRE intervention') did not significantly affect the utilization of non-surgical procedures (e.g., lumbosacral epidural steroid injections, facet joint injections, or facet joint radiofrequency ablation). In addition, the intervention did not impact surgical procedures such as decompression surgery, spinal fusion, or other spine surgeries involving the lumbar, sacral, or thoracic spine. The intervention also did not significantly affect any specific spine procedure.[8]

Ghaffari-Rafi et al. (2021) performed a systematic review and meta-analysis on the role of MRI in clinical decision-making in acute spinal cord injury. Obtaining MRI scans significantly influences the clinical management of patients experiencing acute spinal cord injury (SCI) across all presentations. Guidelines support MRI scans in adult patients with acute SCI before surgical intervention, when feasible, to enhance clinical decision-making. Additional research is needed to establish the utility and efficacy of MRI in various types of SCI further.[9]

References

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Policy Revision History/Information

Original Date: October 2, 2025		
Review History		
Version 1.1	11/19/2025	Per CMS updates for 10/23/2025: L37281 and A57207 retired by CMS and removed from policy. L34220 updated by CMS without criteria changes, updated links and reference.