Cohere Medicare Advantage Policy - Spinal Decompression (Laminectomy, Laminotomy, Foraminotomy, and Discectomy)

Clinical Guidelines for Medical Necessity Review

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Important Notices

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Other Notices:

Guideline Information:

Specialty Area: Disorders of the Musculoskeletal System
Guideline Name: Cohere Medicare Advantage Policy - Spinal Decompression (Laminectomy, Laminotomy, Foraminotomy, and Discectomy)

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Medical Necessity Criteria

Service: Spinal Decompression (Laminectomy, Laminotomy, Foraminotomy, and Discectomy)

Benefit Category

Not applicable.

Recommended Clinical Approach

Spinal decompression may be accomplished within a number of procedures. Laminectomy involves surgical removal of a spinous process, lamina, portions of the facet joint (facetectomy), and ligamentum flavum to increase the spinal canal diameter and reduce stenosis.[1] It is considered the "gold standard" surgical treatment for spinal stenosis.[2] Surgery provides more rapid relief than non-surgical treatment options, although these changes become less significant two years after treatment.[3] Advanced imaging is recommended prior to surgical intervention.[4-6] Laminotomy (hemilaminectomy) involves the removal of a facet joint or partial lamina to allow decompression of the nerve root or dural sac.[1] A laminotomy is frequently performed with a lumbar discectomy for disc herniations.[1] Foraminotomy involves direct compression of a nerve root by enlarging the neural foramen via removal of the lamina, facet joint, and ligamentum flavum.[1] Laminoplasty is performed to access and decompress the cervical spinal canal. The procedure may be performed on the lumbar spine. Annular closure may be performed following a primary discectomy procedure between L4 and S1. Annular closure devices have been developed to use during the procedure to reduce the incidence of re-herniation and potential reoperation. Removal of osteophytes may be necessary during the procedure.

Percutaneous image-guided lumbar decompression (PILD) is a posterior decompression of the lumbar spine performed under indirect image guidance without any direct visualization of the surgical area. This is a procedure proposed as a treatment for symptomatic LSS unresponsive to conservative therapy. This procedure is generally described as a non-invasive procedure using specially designed instruments to percutaneously remove a

portion of the lamina and debulk the ligamentum flavum. The procedure is performed under x-ray guidance (e.g., fluoroscopic, CT) with the assistance of contrast media to identify and monitor the compressed area via epiduragram.[7]

PILD is not covered by Medicare outside of research studies. These studies must comply with all applicable federal regulations concerning the protection of human subjects, be registered on ClinicalTrials.gov, and have a written protocol addressing Medicare requirements for CED coverage, including the release of outcomes.[7]

Evaluation of Clinical Benefits and Potential Harms

Cohere Health uses the criteria below to ensure consistency in reviewing the conditions to be met for coverage of spinal decompression procedures. This process helps to prevent both incorrect denials and inappropriate approvals of medically necessary services. Specifically, limiting incorrect approvals reduces the risks associated with unnecessary procedures, such as complications from surgery, adverse reactions, and infection.

The potential clinical harms of using these criteria may include:

- Inadequate management of severe spinal conditions due to inappropriate denials. Rhee et al discuss appropriate management for cervical myelopathy.[4] They note that myelopathy is a progressive disorder and there is little evidence that nonoperative treatment is effective in stopping progression, therefore conservative treatment is not recommended in patients with moderate to severe myelopathy. Therefore, if a patient with myelopathy is denied a surgical procedure, it is likely the condition will worsen with potential neurologic compromise.
- Risks with inappropriate surgical procedures include infection, bleeding requiring a transfusion, injury to neurovascular structures, anesthetic risk and need for repeat or additional procedures due to adjacent segment disease and ongoing pain. Takai et al reviewed 407 spinal decompression surgeries and noted the following rate of complications: thoracic decompression 36%, cervical decompression 16%, and lumbar decompression 13%.[15] Badiee et al reviewed the current literature for cervical decompression and noted complications rates ranged between 15-25%. [16]The most common acute complications include blood loss anemia, surgical site infection, C5 nerve palsy, and dural tear. The most common long term complications include adjacent

segment degeneration, junctional kyphosis and pseudoarthrosis. Given this high rate of complications, careful surgical selection is important. These guidelines are developed to help identify those patients where surgical intervention is recommended.
- Increased healthcare costs and complications from the inappropriate use of emergency services and additional treatments.

The clinical benefits of using these criteria include:
- Improved patient outcomes by ensuring timely and appropriate access to spinal decompression procedures. Lannon et al report that degenerative cervical myelopathy is a leading cause of spinal cord injury, therefore early surgical referral is recommended to prevent progressive neurologic damage.[8] Sunderland et al reviewed 2,699 lumbar decompression surgical procedures.[17] Lumbar decompression was successful in improving leg pain and low back pain to a lesser extent. Minimal clinically important improvement (MCID) was noted in 73% of patients at 2 years. Primary surgery had better results than revision procedures.
- Reduction in complications and adverse effects from unnecessary procedures. As Sunderland noted, results are best with primary decompression.[17] Badiee et al describe cervical spine complications ranging from 15-25%, therefore unnecessary procedures can be accompanied by additional surgeries to manage complications.[16]
- Enhanced overall patient satisfaction and healthcare experience.

This policy includes provisions for expedited reviews and flexibility in urgent cases to mitigate risks of delayed access. Evidence-based criteria are employed to prevent inappropriate denials, ensuring that patients receive medically necessary care. The criteria aim to balance the need for effective treatment with the minimization of potential harms, providing numerous clinical benefits in helping avoid unnecessary complications from inappropriate care.

In addition, the use of these criteria is likely to decrease inappropriate denials by creating a consistent set of review criteria, thereby supporting optimal patient outcomes and efficient healthcare utilization.

Medical Necessity Criteria

Indications

- ➔ **Spinal decompression without fusion** is considered appropriate if **ANY** of the following is **TRUE**:
  - ◆ The procedure is an **anterior or posterior cervical or upper thoracic decompression without fusion,** and **ANY** of the following is **TRUE**:
    - The patient has **cervical or upper thoracic myelopathy**, and **ALL** of the following are **TRUE**:
      - **ANY** of the following is **TRUE**[8-9]:
        - ◆ Procedure needed for treatment of cervical or upper thoracic spine injury with myelopathy (e.g., trauma); **OR**
        - ◆ Progressive neurological deficit; **OR**
        - ◆ **ANY** of the following myelopathy symptoms:
          - Gait disturbance or abnormality; **OR**
          - Lower or upper extremity weakness; **OR**
          - Paresthesias or numbness in the upper extremities; **OR**
          - Loss of dexterity/coordination; **OR**
          - Bowel or bladder dysfunction; **OR**
        - ◆ **ANY** of the following myelopathy physical examination findings:
          - Lhermitte's sign: an electric shock-like sensation down the spine or into the upper extremities with forward flexion of the cervical spine; **OR**
          - Hoffman's sign; **OR**
          - **ANY** of the following upper lower motor neuron (ULMN) findings in the upper extremities:
            - Weakness; **OR**
            - Atrophy; **OR**
          - **ANY** of the following upper lower motor neuron (ULMN) findings in the lower extremities:
            - Hypertonicity; **OR**

        - Hyperreflexia; **OR**
        - Positive Babinski (extension of toes with distal to proximal plantar stimulation of foot); **OR**
        - Multiple beats or sustained clonus; **OR**
        - Decreased sensation, proprioception, or vibratory sense; **OR**
        - Loss of sphincter tone; **AND**
    - Advanced imaging (MRI or CT myelogram) reveals spinal cord compressive pathology (e.g., myelomalacia of cord signal change consistent with the presentation)[6]; **OR**
- The patient has **cervical or upper thoracic radiculopathy,** and **ALL** of the following are **TRUE:**
    - **ANY** of the **following:**
        - **ANY** of the following **cervical or upper thoracic radiculopathy** symptoms:
            - Neck pain; **OR**
            - Arm pain; **OR**
            - Scapular pain; **OR**
            - Periscapular pain; **OR**
            - Anterior chest pain; **OR**
            - Weakness, numbness, or paresthesia in the upper extremity; **OR**
            - Headache; **OR**
        - **ANY** of the following **cervical or upper thoracic radiculopathy** positive specialty tests:
            - Spurling's test or maneuver or compression test (reproduction of symptoms with neck extension, lateral flexion, and downward compression or loading); **OR**
            - Shoulder abduction test (symptoms relieved with shoulder abduction); **AND**
    - **ANY** of the following is **TRUE**:
        - Failure of conservative management (e.g., rest, analgesics, physical therapy, oral or injectable

corticosteroids) must be documented for a period of greater than 6 weeks. Documentation should include detailed evidence of the measures taken, rather than solely a physician's statement; **OR**
        - The patient's severe pain or disability is affecting their quality of life and limiting their daily life (including working and ability to provide self-care); **AND**
    - A diagnostic finding of the spinal cord or nerve root compressive pathology consistent with the presentation utilizing **ANY** of the following[10]:
        - Magnetic resonance imaging (MRI) scans are the preferred advanced imaging diagnostic method; **OR**
        - Computed tomography (CT) myelography recommended in the event of MRI contraindication; **OR**
- The procedure is **lower thoracic or lumbar decompression without fusion*** and **ANY** of the following is **TRUE**[11]:
    - The patient has signs or symptoms of cauda equina syndrome and **ALL** of the following:
        - Advanced imaging (MRI or CT myelogram) reveals moderate to severe lower thoracic or lumbar stenosis consistent with clinical symptoms[12]; **AND**
        - **ANY** of the following symptoms of cauda equina syndrome:
            - Bowel, bladder, and erectile dysfunction; **OR**
            - Diffuse motor weakness; **OR**
            - Saddle-distribution anesthesia; **OR**
    - The patient has signs or symptoms of **lower thoracic or lumbar stenosis**, and **ALL** of the following are **TRUE**:
        - **ANY** of the following **lower thoracic or lumbar stenosis symptoms**:
            - Lower extremity pain, weakness, fatigue, paresthesias, and sensory changes; **OR**
            - Gluteal and low back pain (LBP); **OR**
            - Bilateral or unilateral symptoms; **OR**
            - Symptoms may present only with activity; **OR**

        - Exacerbating factors include standing, walking, and other upright exercises; **OR**
        - Pain may relieve in a sitting or supine position or with forward flexion at the waist; **OR**
        - Lower extremity pain that is made worse by walking; **AND**
    - Advanced imaging (MRI or CT myelogram) reveals moderate to severe lower thoracic or lumbar stenosis consistent with clinical symptoms; **AND**
    - **ANY** of the following:
        - Failure of conservative management (e.g., rest, analgesics, physical therapy, oral or injectable corticosteroids) must be documented for a period of greater than 6 weeks. Documentation should include detailed evidence of the measures taken, rather than solely a physician's statement; **OR**
        - The patient's severe pain or disability is affecting their quality of life and limiting their daily life (including working and ability to provide self-care); **OR**
- The procedure is an **anterior or posterior lower thoracic or lumbar discectomy,** and **ANY** of the following is **TRUE:**
    - The patient has signs or symptoms of cauda equina syndrome and **ALL** of the following:
        - Advanced imaging (MRI or CT myelogram) reveals disc herniation that causes moderate to severe lower thoracic or lumbar stenosis consistent with clinical symptoms[12]; **AND**
        - **ANY** of the following symptoms of cauda equina syndrome:
            - Bowel, bladder, and erectile dysfunction; **OR**
            - Diffuse motor weakness; **OR**
            - Saddle-distribution anesthesia; **OR**
    - The patient has **lower thoracic or lumbar radiculopathy**, and **ALL** of the following are **TRUE**:
        - **ANY** of the following lower thoracic or lumbar radiculopathy symptoms:

        - Unremitting lower extremity pain, paresthesia, weakness, or numbness in a myotomal or dermatome distribution; **OR**
        - Increased pain with coughing, sneezing or straining; **OR**
        - Low back pain; **AND**
    - **ANY** of the following physical examination findings:
        - Sensory disturbance (i.e., loss of sensation or decreased sensory response) or weakness in a dermatomal/myotomal distribution; **OR**
        - Absent or decreased Achilles reflex; **OR**
        - Reduced spinal mobility; **OR**
        - **ANY** of the following positive specialty tests:
            - Straight leg raise; **OR**
            - Crossed Lasègue's (or crossed straight leg raise); **OR**
            - Femoral nerve stretch; **OR**
            - Slump; **AND**
    - Advanced imaging (MRI or CT myelogram) reveals disc herniation consistent with clinical findings; **AND**
    - Failure of conservative management (e.g., rest, analgesics, physical therapy, oral or injectable corticosteroids) must be documented for a period of greater than six weeks. Documentation should include detailed evidence of the measures taken, rather than solely a physician's statement.

***NOTE:** Please see the non-indications section. Percutaneous lumbar decompression is not considered appropriate. This procedure is unproven and not medically necessary. There is insufficient evidence of their effectiveness for these indications.

Non-Indications

- ➔ **Spinal decompression without fusion** is not considered appropriate if **ANY** of the following are **TRUE**[9]:
    - PILD for LSS is not covered outside of clinical studies. Additionally, endoscopically assisted laminotomy/laminectomy and other open lumbar decompression procedures for LSS are not covered under this policy.[7]

Percutaneous image-guided lumbar decompression (PILD) for lumbar spinal stenosis (LSS) is covered by Medicare only when provided in a clinical study under section 1862(a)(1)(E) through Coverage with Evidence Development (CED).

Clinical studies for PILD must address one or more of the following: improvements in function and quality of life, pain reduction, clinical management of LSS, and decision-making. The study must include a prospective, randomized, controlled design using validated and reliable measurement instruments; **OR**

- The procedure is posterior laminectomy without fusion, and the patient has kyphosis or is at-risk for postoperative kyphosis; **OR**
- Use of annular closure devices.[13-14]

Level of Care Criteria

Inpatient or Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
22899	Unlisted procedure, spine
62287	Decompression procedure, percutaneous, of nucleus pulposus of intervertebral disc, any method utilizing needle based technique to remove disc material under fluoroscopic imaging or other form of indirect visualization, with discography and/or epidural injection(s) at the treated level(s), when performed, single or multiple levels, lumbar
62380	Endoscopic decompression of spinal cord, nerve root(s), including laminotomy, partial facetectomy, foraminotomy, discectomy and/or excision of herniated intervertebral disc, 1 interspace, lumbar
63001	Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (eg, spinal stenosis), 1 or 2 vertebral segments; cervical
63003	Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina,

	without facetectomy, foraminotomy or discectomy (eg, spinal stenosis), 1 or 2 vertebral segments; thoracic
63005	Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (eg, spinal stenosis), 1 or 2 vertebral segments; lumbar, except for spondylolisthesis
63011	Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (eg, spinal stenosis), 1 or 2 vertebral segments; sacral
63012	Laminectomy with removal of abnormal facets and/or pars inter-articularis with decompression of cauda equina and nerve roots for spondylolisthesis, lumbar (Gill type procedure)
63015	Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (eg, spinal stenosis), more than 2 vertebral segments; cervical
63016	Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (eg, spinal stenosis), more than 2 vertebral segments; thoracic
63017	Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (eg, spinal stenosis), more than 2 vertebral segments; lumbar
63020	Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of herniated intervertebral disc; 1 interspace, cervical
63030	Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial

	facetectomy, foraminotomy and/or excision of herniated intervertebral disc; 1 interspace, lumbar
63035	Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of herniated intervertebral disc; each additional interspace, cervical or lumbar (List separately in addition to code for primary procedure)
63040	Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of herniated intervertebral disc, reexploration, single interspace; cervical
63042	Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of herniated intervertebral disc, reexploration, single interspace; lumbar
63043	Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of herniated intervertebral disc, reexploration, single interspace; each additional cervical interspace (List separately in addition to code for primary procedure)
63044	Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of herniated intervertebral disc, reexploration, single interspace; each additional lumbar interspace (List separately in addition to code for primary procedure)
63045	Laminectomy, facetectomy and foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s], [eg, spinal or lateral recess stenosis]), single vertebral segment; cervical
63046	Laminectomy, facetectomy and foraminotomy (unilateral or bilateral with decompression of spinal

	cord, cauda equina and/or nerve root[s], [eg, spinal or lateral recess stenosis]), single vertebral segment; thoracic
63047	Laminectomy, facetectomy and foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s], [eg, spinal or lateral recess stenosis]), single vertebral segment; lumbar
63048	Laminectomy, facetectomy and foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s], [eg, spinal or lateral recess stenosis]), single vertebral segment; each additional vertebral segment, cervical, thoracic, or lumbar (List separately in addition to code for primary procedure)
63050	Laminoplasty, cervical, with decompression of the spinal cord, 2 or more vertebral segments;
63051	Laminoplasty, cervical, with decompression of the spinal cord, 2 or more vertebral segments; with reconstruction of the posterior bony elements (including the application of bridging bone graft and non-segmental fixation devices [eg, wire, suture, mini-plates], when performed)
63052	Laminectomy, facetectomy, or foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s] [eg, spinal or lateral recess stenosis]), during posterior interbody arthrodesis, lumbar; single vertebral segment (List separately in addition to code for primary procedure)
63053	Laminectomy, facetectomy, or foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s] [eg, spinal or lateral recess stenosis]), during posterior interbody arthrodesis, lumbar; each additional vertebral segment (List separately in addition to code for primary procedure)
63055	Transpedicular approach with decompression of spinal cord, equina and/or nerve root(s) (e.g.,

	herniated intervertebral disc), single segment; thoracic
63056	Transpedicular approach with decompression of spinal cord, equina and/or nerve root(s) (e.g., herniated intervertebral disc), single segment; lumbar (including transfacet, or lateral extraforaminal approach) (e.g., far lateral herniated intervertebral disc)
63057	Transpedicular approach with decompression of spinal cord, equina and/or nerve root(s) (e.g., herniated intervertebral disc), single segment; each additional segment, thoracic or lumbar (List separately in addition to code for primary procedure)
63064	Costovertebral approach with decompression of spinal cord or nerve root(s) (e.g., herniated intervertebral disc), thoracic; single segment
63066	Costovertebral approach with decompression of spinal cord or nerve root(s) (e.g., herniated intervertebral disc), thoracic; each additional segment (List separately in addition to code for primary procedure)
63075	Discectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophytectomy; cervical, single interspace
63076	Discectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophytectomy; cervical, each additional interspace (List separately in addition to code for primary procedure)
63077	Discectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophytectomy; thoracic, single interspace
63078	Discectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophytectomy; thoracic, each additional interspace (List separately in addition to code for primary procedure)

63170	Laminectomy with myelotomy (eg, Bischof or DREZ type), cervical, thoracic, or thoracolumbar
63172	Laminectomy with drainage of intramedullary cyst/syrinx; to subarachnoid space
63173	Laminectomy with drainage of intramedullary cyst/syrinx; to peritoneal or pleural space
63185	Laminectomy with rhizotomy; 1 or 2 segments
63190	Laminectomy with rhizotomy; more than 2 segments
63191	Laminectomy with section of spinal accessory nerve
63197	Laminectomy with cordotomy, with section of both spinothalamic tracts, 1 stage, thoracic
63200	Laminectomy, with release of tethered spinal cord, lumbar
63250	Laminectomy for excision or occlusion of arteriovenous malformation of spinal cord; cervical
63251	Laminectomy for excision or occlusion of arteriovenous malformation of spinal cord; thoracic
63252	Laminectomy for excision or occlusion of arteriovenous malformation of spinal cord; thoracolumbar
63265	Laminectomy for excision or evacuation of intraspinal lesion other than neoplasm, extradural; cervical
63266	Laminectomy for excision or evacuation of intraspinal lesion other than neoplasm, extradural; thoracic
63267	Laminectomy for excision or evacuation of intraspinal lesion other than neoplasm, extradural; lumbar
63268	Laminectomy for excision or evacuation of intraspinal lesion other than neoplasm, extradural; sacral

63270	Laminectomy for excision of intraspinal lesion other than neoplasm, intradural; cervical
63271	Laminectomy for excision of intraspinal lesion other than neoplasm, intradural; thoracic
63272	Laminectomy for excision of intraspinal lesion other than neoplasm, intradural; lumbar
63273	Laminectomy for excision of intraspinal lesion other than neoplasm, intradural; sacral
63275	Laminectomy for biopsy/excision of intraspinal neoplasm; extradural, cervical
63276	Laminectomy for biopsy/excision of intraspinal neoplasm; extradural, thoracic
63277	Laminectomy for biopsy/excision of intraspinal neoplasm; extradural, lumbar
63278	Laminectomy for biopsy/excision of intraspinal neoplasm; extradural, sacral
63280	Laminectomy for biopsy/excision of intraspinal neoplasm; intradural, extramedullary, cervical
63281	Laminectomy for biopsy/excision of intraspinal neoplasm; intradural, extramedullary, thoracic
63282	Laminectomy for biopsy/excision of intraspinal neoplasm; intradural, extramedullary, lumbar
63283	Laminectomy for biopsy/excision of intraspinal neoplasm; intradural, sacral
63285	Laminectomy for biopsy/excision of intraspinal neoplasm; intradural, intramedullary, cervical
63286	Laminectomy for biopsy/excision of intraspinal neoplasm; intradural, intramedullary, thoracic
63287	Laminectomy for biopsy/excision of intraspinal neoplasm; intradural, intramedullary, thoracolumbar
63290	Laminectomy for biopsy/excision of intraspinal

	neoplasm; combined extradural-intradural lesion, any level
63295	Osteoplastic reconstruction of dorsal spinal elements, following primary intraspinal procedure (List separately in addition to code for primary procedure)
0274T	Percutaneous laminotomy/laminectomy (interlaminar approach) for decompression of neural elements, (with or without ligamentous resection, discectomy, facetectomy and/or foraminotomy), any method, under indirect image guidance (eg, fluoroscopic, CT), single or multiple levels, unilateral or bilateral; cervical or thoracic
0275T	Percutaneous laminotomy/laminectomy (interlaminar approach) for decompression of neural elements, (with or without ligamentous resection, discectomy, facetectomy and/or foraminotomy), any method, under indirect image guidance (eg, fluoroscopic, CT), single or multiple levels, unilateral or bilateral; lumbar
C2614	Probe, percutaneous lumbar discectomy
C9757	Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and excision of herniated intervertebral disc, and repair of annular defect with implantation of bone anchored annular closure device, including annular defect measurement, alignment and sizing assessment, and image guidance; 1 interspace, lumbar
S2350	Discectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophytectomy; lumbar, single interspace
S2351	Discectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophytectomy; lumbar, each additional interspace (list separately in addition to code for primary procedure)

Medical Evidence

Rhee et al. (2013) published a systematic review of nonoperative management of cervical myelopathy, concluding that limited published evidence existed for nonoperative treatment of cervical myelopathy and recommended further comparative studies. They therefore recommended not routinely recommending nonoperative treatment in moderate to severe myelopathy.[4]

Karadimas et al. (2013) concluded from a narrative and systematic review that the incidence of cervical spondylotic myelopathy (CSM) will continue to increase as the population ages. Their evidence-based recommendation states that due to common progressive neurological deterioration with CSM, patients should be educated regarding the potential future need for surgical intervention.[5]

In a systematic review by Lannon et al. (2021), degenerative cervical myelopathy (DCM) is described as a leading cause of spinal cord injury and spinal stenosis with increasing incidence. Early surgical referral is recommended along with conservative management to prevent progressive neurologic compromise.[8]

A 2010 guideline from the North American Spine Society (NASS) (Bono et al.) recommended CT myelography in the event of MRI contraindications. Surgical intervention is recommended for cervical radiculopathy from degenerative disorders due to the rapid relief of symptoms.[9]

The American College of Radiology (ACR) Expert Panel on Neurological Imaging has published several guidelines related to myelopathic evaluation:

- Agarwal et al. (2021) updated the previous Myelopathy Appropriate Use Criteria, with MRI recommended as initial imaging for acute onset myelopathy as well as chronic or progressive myelopathy due to its superior resolution of soft tissue and ability to evaluate surrounding structures. CT is designated as May Be Appropriate in the ratings, with CT myelography of possible use prior to surgical intervention.[6]
- McDonald et al. (2018) recommend radiography, MRI or CT for initial imaging in new or increasing nontraumatic neck pain, as well as in

cervical radiculopathy. In patients with a history of cervical spine surgery, radiography, and non-contrast CT are primary recommendations with a disagreement on the appropriateness of MRI (contrast and non-contrast). CT myelography is rated as May Be Appropriate.[10]

- Hutchins et al. (2021) in the Low Back Pain ACR Appropriateness Criteria recommend non-contrast MRI as Usually Appropriate, and radiography and CT as May Be Appropriate in low back pain with and without radiculopathy. This applies to surgical candidates with persistence or progression of symptoms having failed six weeks of medical management. MRI, CT, and CT myelography are recommended for suspected cauda equina syndrome. In osteoporosis or chronic steroid use, radiography, non-contrast MRI or CT is recommended as usually appropriate.[12]

Thomé et al. (2018) conducted a randomized controlled trial of 554 participants focused upon annular closure in lumbar microdiscectomy for prevention of reherniation. They concluded that in patients with a high risk of herniation recurrence after lumbar microdiscectomy, annular closure with a bone-anchored implant lowered the risk of symptomatic recurrence and reoperation. They stated that additional study to determine outcomes beyond 2 years with a bone-anchored annular closure device would be warranted.[14]

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