



CLINICAL GUIDELINES

CMM-600: Preface to the Spine Surgery Guidelines

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EviCore
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EviCore healthcare Clinical Decision Support Tool Diagnostic Strategies: This tool addresses common symptoms and symptom complexes. Requests for individuals with atypical symptoms or clinical presentations that are not specifically addressed will require physician review. Consultation with the referring physician, specialist and/or individual's Primary Care Physician (PCP) may provide additional insight.

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CMM-600: Preface to Spine Surgery Guidelines**CMM-600.1: Prior Authorization Requirements****CMM-600.2: Urgent/Emergent Requests****CMM-600.3: Definitions****CMM-600.4: References**

CMM-600.1: Prior Authorization Requirements

Timing of Prior Authorization Request Submissions

- Prior-authorization requests should be submitted at least two weeks prior to the anticipated date of an elective spinal surgery.

Documentation Requirements to Complete Prior Authorization

- Minimum documentation requirements needed to complete a prior authorization request for spinal surgery include **ALL** of the following:
 - ◆ CPT® codes, disc level(s) or motion segments involved for planned surgery, and ICD-10 codes
 - ◆ Detailed documentation of the type, duration, and frequency of provider-directed non-surgical treatment (e.g., interventional pain management, medication management, physical therapy, chiropractic care, provider-directed active exercise program, etc.) and the response to each treatment
 - Detailed documentation explaining why a sufficient trial of non-surgical treatment was contraindicated (if applicable)
 - Detailed documentation of less than clinically meaningful improvement for each treatment.
 - ◆ Written reports/interpretations of the most recent advanced diagnostic imaging studies (e.g., CT, MRI, Myelography) by an independent radiologist. Clinically significant discrepancies in interpretations between the surgeon and the radiologist need to be reconciled in the documentation submitted for prior authorization.
 - Acceptable imaging modalities for purposes of the Spine Surgery guidelines are CT, MRI, and Myelography.
 - Discography or MR Spectroscopy results will not be used as a determining factor of medical necessity for any requested procedure. Discography or MR Spectroscopy use is not endorsed.
 - ◆ For spinal fusion surgery requests: documentation of flexion-extension plain X-rays based upon indications for instability and/or other plain X-rays that document failure of instrumentation, fusion, etc.
 - ◆ Documentation of nicotine-free status as evidenced by **EITHER** of the following, (unless this is an urgent/emergent request for fusion, disc arthroplasty, or when myelopathy is present):
 - Individual is a never-smoker
 - Individual has refrained from smoking, use of smokeless tobacco products, and/or nicotine replacement therapy for at least 6 weeks prior to planned surgery as evidenced by blood cotinine lab results of ≤10 ng/mL
 - **Note:** In order to complete the prior authorization process for spinal fusion surgery, allow for sufficient time for submission of lab results performed after the 6-week cessation period.

- ◆ Some procedures in the EviCore Spine Surgery Guidelines require a trial of epidural steroid injection(s) (ESIs)/selective nerve root blocks (SNRBs) unless there is a documented contraindication(s) to ESIs/SNRBs.
 - Contraindications to ESIs/SNRBs include the presence of **ANY** of the following:
 - Allergy to the medication to be administered
 - A significantly altered or eliminated epidural space (e.g., congenital anatomic anomalies or previous surgery)
 - Anticoagulation therapy
 - Bleeding disorder
 - Localized infection in the region to be injected
 - Systemic infection
 - Other co-morbidities that could be exacerbated by steroid usage (e.g., poorly controlled hypertension, severe congestive heart failure, diabetes, etc.)

CMM-600.2: Urgent/Emergent Requests

- All individuals being evaluated for spine surgery should be screened for the presence of urgent/emergent indications/conditions that warrant definitive surgical treatment. **Imaging findings noted in the applicable procedure section(s) are required.**
 - ◆ The following criteria are **NOT** required for confirmed urgent/emergent conditions:
 - Provider-directed non-surgical management
 - Proof of smoking cessation
 - Absence of unmanaged significant mental and/or behavioral health disorders (e.g., major depressive disorder, chronic pain syndrome, secondary gain, opioid and alcohol use disorders)
 - Timeframe for repeat procedure
- An urgent/emergent request is based on the 2019 NCQA standards for utilization management and is as follows:
 - ◆ A request for medical care or services where application of the time frame for making routine or non-life threatening care determinations:
 - Could seriously jeopardize the life or health of the individual or the individual's ability to regain maximum function, based on a prudent layperson's judgment, **OR**
 - Could seriously jeopardize the life, health, or safety of the individual or others, due to the individual's psychological state, **OR**
 - In the opinion of a practitioner with knowledge of the individual's medical or behavioral condition, would subject the individual to adverse health consequences without the care or treatment that is the subject of the request.

CMM-600.3: Definitions

- **Direct Lumbar Decompression:** formal surgical decompression (e.g., laminectomy, discectomy) by removing native tissue.
- **Indirect Lumbar Decompression:** the use of instrumentation or structural graft (e.g., interbody fusion) to decrease stenosis or nerve compression without formal surgical decompression (e.g., laminectomy, discectomy).
- **Meyerding Classification Grade of Spondylolisthesis:** determined by measuring the degree of slip using standing, neutral lateral radiographs of the lumbar spine. The classification system divides slip into five grades: 0% to 25% is Grade I; 25% to 50% is Grade II; 50% to 75% is Grade III; 75% to 100% is Grade IV; and, greater than 100% is Grade V.
- **Motor Deficits (Weakness):** should be defined by the specific myotomal distribution (e.g., weakness of toe flexion/extension, knee flexion/extension, ankle dorsi/plantar flexion, wrist dorsi/palmar flexion) and gradation of muscle testing should be documented as follows:

Grading of Manual Muscle Testing	
0	No muscle activation
1	Trace muscle activation, such as a twitch, without achieving full range of motion
2	Muscle activation with gravity eliminated, achieving full range of motion
3	Muscle activation against gravity, full range of motion
4	Muscle activity against some resistance, full range of motion
5	Muscle activation against examiner's full resistance, full range of motion

- **Osteotomy:** a surgical procedure that involves extracting entire vertebrae or sections of vertebrae for correction of spinal deformity. Osteotomy is performed with fusion. Osteotomy procedures can be further categorized as follows:
 - ◆ **Posterior Column Osteotomy (PCO):** a surgical procedure to correct spinal deformity that involves removal of a section of bone from the posterior column of the spine where both inferior and superior facets of an articulation at a given spinal segment are fully resected, as well as the ligamentum flavum; other posterior elements of the vertebra including the lamina or the spinous processes may also be resected. Posterior column osteotomies require preexisting anterior column mobility. PCO types include Smith-Petersen osteotomy (SPO) and Ponte osteotomy.
 - **Smith-Petersen Osteotomy (SPO):** a type of osteotomy that involves a chevron resection of the posterior elements that shortens the posterior column and lengthens the anterior column upon closure.
 - **Ponte Osteotomy:** a type of osteotomy that involves a wide segmental resection of the posterior elements that shortens the posterior column and lengthens the anterior column upon closure.

- ◆ **Three-Column Osteotomy:** surgical procedure that involves removal of parts or all of the posterior, middle, and anterior columns of the spine. Three-column osteotomy types include pedicle subtraction osteotomy (PSO) and vertebral column resection (VCR).
 - **Pedicle Subtraction Osteotomy (PSO):** a surgical procedure to correct spinal deformity which involves a three-column osteotomy with wedge resection of the posterior and middle vertebral body and resection of the posterior elements and pedicles. A portion of the vertebral body at the level of the osteotomy remains intact. This technique is used for large ($>30^\circ$) or fixed deformities
 - **Vertebral Column Resection (VCR):** a surgical procedure to correct spinal deformity that involves removal of the entire vertebral body or bodies and discs with resection of the posterior elements and pedicles. This technique is used for large ($>30^\circ$) or fixed deformities.
- **Radiculopathy:** the presence of pain, dysesthesia(s), or paresthesia(s) reported by the individual in a level-specific referral pattern of an involved named spinal root(s) causing significant functional limitations, (i.e., diminished quality of life and impaired age-appropriate activities of daily living).
- **Spinal Stenosis:** the narrowing of the spinal canal usually due to spinal degeneration that occurs with aging. It may also be the result of spinal disc herniation, osteoarthritis, or a tumor.
- **Surgical Approaches**
 - ◆ **Direct Visualization:** Light-based visualization; can be performed by eye, or with surgical loupes, microscope, or endoscope.
 - ◆ **Endoscopic Spinal Procedures:** Spinal procedures performed with continuous direct visualization of the spine through an endoscope.
 - ◆ **Indirect Visualization:** Image-guided (e.g., CT or fluoroscopy), not light-based visualization.
 - ◆ **Open Spinal Procedures:** Spinal procedures performed with continuous direct visualization of the spine through a surgical opening.
 - ◆ **Percutaneous Spinal Procedures:** Image-guided procedures (e.g., computer tomography [CT] or fluoroscopy) performed with indirect visualization of the spine without the use of any device that allows visualization through a surgical incision.
- **Vertebral Corpectomy:** a surgical procedure that involves removal of a substantial portion of the body of the vertebra (not for removal of osteophytes alone). The amount of bone removed determines if the procedure qualifies as a corpectomy and varies based on spinal region as follows:
 - ◆ **Cervical Vertebral Corpectomy:** amount of bone removed is at least one-half of the vertebral body
 - ◆ **Thoracic Vertebral Corpectomy:** amount of bone removed is at least one-third of the vertebral body
 - ◆ **Lumbar Vertebral Corpectomy:** amount of bone removed is at least one-third of the vertebral body

References (CMM-600)

1. Akhavan S, Nguyen L, Chan V, Saleh et al. Impact of smoking cessation counseling prior to total joint arthroplasty. *Orthopedics*. 2017;40:e323-e328.
2. American Medical Association. Code 20660 as an Independent or Unrelated Procedure- Coding Tip. *CPT® Assistant Newsletter*. April 2012;11. Accessed October 5, 2023. Available at: <https://ocm.ama-assn.org/OCM/CPTAA/Newsletters.do?articleType=IssueArticle&filename=20120411&hitTerms=corpectomy>.
3. Brown CW, Orme TJ, Richardson HD. The rate of pseudoarthrosis (surgical nonunion) in patients who are smokers and patients who are nonsmokers: a comparison study. *Spine (Phila Pa 1976)*. Nov 1986;11(9): 942-943.
4. Bydon M, Garza-Ramos R, Abt NB, et al. Impact of smoking on complication and pseudarthrosis rates after single- and 2-level posterolateral fusion of the lumbar spine. *Spine*. 2014;39(21):1765-1770.
5. Canale ST, Kelly FB, Daugherty K. Smoking threatens orthopaedic outcomes: Negative effects should prompt orthopaedists to address the issue with patients. *AAOS Now*. 2012;1.
6. Greenhagen RM, Johnson AR, Bevilacqua NJ. Smoking cessation: The role of the foot and ankle surgeon. *Foot Ankle Spec*. 2010;3:21-28.
7. Hu WH, Wang Y. Osteotomy Techniques for Spinal Deformity. *Chin Med J (Engl)*. 2016;129(21):2639-2641. doi: 10.4103/0366-6999.192774.
8. Kelly MP, Lehman Jr RA, Gupta MC. 15 Posterior Releases: Pontes and Three-Column Osteotomies. Musculoskeletal Key. Available at: https://musculoskeletalkey.com/15-posterior-releases-pontes-and-three-column-osteotomies/#b1a587a600_7.
9. Khullar D, Maa J. The impact of smoking on surgical outcomes. *J Am Coll Surg*. 2012;215:418-426.
10. Koslosky E, Gendelberg D. Classification in Brief. *Clin Orthop Relat Res*. 2020;478(5):1125-1130. doi: 10.1097/corr.0000000000001153.
11. Lau D, Chou D, Ziewacz JE, et al. The effects of smoking on perioperative outcomes and pseudarthrosis following anterior cervical corpectomy. *J Neurosurg Spine*. 2014;21:547-558.
12. Lenke LG, Hassan FM, Mohanty S, Gupta M, Ames C. Three-Column Osteotomies: Past, Present, and Future. *Semin Spine Surg*. 2023. doi: 10.1016/j.semss.2023.101059.
13. Lindström D, Sadr Azodi O, Wladis A, et al. Effects of a perioperative smoking cessation intervention on postoperative complications: A randomized trial. *Ann Surg*. 2008; 248:739-745.
14. Macki M, Syeda S, Rajjoub KR, et al. The effect of smoking status on successful arthrodesis after lumbar instrumentation supplemented with rhBMP-2. *World Neurosurg*. 2017. 97:459-64.
15. Morningstar M. *Coding for MIS Procedures with Direct Visualization*. AAPC Knowledge Center. <https://www.aapc.com/blog/69274-coding-for-mis-procedures-with-direct-visualization/>. Published May 01, 2021.
16. Naqvi U, Sherman A. *Muscle Strength Grading*. Ncbi.nlm.nih.gov. <https://www.ncbi.nlm.nih.gov/books/NBK436008/>. Published 2022.
17. NCQA 2019 UM-CR-PN Accreditation Standards.
18. North American Spine Society (NASS). *Evidence-Based Clinical Guidelines for Multidisciplinary Spine Care: Diagnosis & Treatment of Low Back Pain*. Burr Ridge, IL: NASS; 2020:1-217. Available at: <https://www.spine.org/Portals/0/assets/downloads/ResearchClinicalCare/Guidelines/LowBackPain.pdf>.
19. Moller AM, Pedersen T, Villebro N, et al. Effect of smoking on early complications after elective orthopaedic surgery. *J Bone Joint Surg Br*. 2003;85:178-181.
20. Phan K, Fadhil M, Chang N, et al. Effect of smoking status on successful arthrodesis, clinical outcome, and complications after anterior lumbar interbody fusion (ALIF). *World Neurosurg*. 2018;110:e998-e1003.
21. Raja M, Garg A, Yadav P, et al. Diagnostic Methods for Detection of Cotinine Level in Tobacco Users: A Review. *J Clin Diagn Res*. Mar 2016;10(3):ZE04-ZE06.
22. Ratner PA, Johnson JL, Richardson CG, et al. Efficacy of a smoking-cessation intervention for elective-surgical patients. *Res Nurs Health*. 2004;27:148-161.
23. Sorensen LT, Karlsmark T, Gottrup F. Abstinence from smoking reduces incisional wound infection: A randomized controlled trial. *Ann Surg*. 2003;238:1-5.
24. Thomsen T, Tonnesen H, Moller AM. Effect of preoperative smoking cessation interventions on postoperative complications and smoking cessation. *Br J Surg*. 2009;96:451-461.
25. Walker NM, Morris SA, Cannon LB. The effect of pre-operative counselling on smoking patterns in patients undergoing forefoot surgery. *Foot Ankle Surg*. 2009; 5:86-89.