MASSACHUSETTS

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Medical Policy

Axial Lumbosacral Interbody Fusion

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Policy Number: 404

BCBSA Reference Number: 7.01.130
NCD/LCD: NA

Related Policies

- Interspinous and Interlaminar Stabilization/Distraction Devices (Spacers), #584
- Interspinous Fixation - Fusion Devices, #436
- Total Facet Arthroplasty , #174
- Ultrasound Accelerated Fracture Healing Device, #497

Policy

Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity
Medicare HMO Blue℠ and Medicare PPO Blue℠ Members

Axial lumbosacral interbody fusion (axial LIF) is considered **INVESTIGATIONAL**.

Prior Authorization Information

Inpatient

- For services described in this policy, precertification/preauthorization **IS REQUIRED** for all products if the procedure is performed **inpatient**.

Outpatient

- For services described in this policy, see below for products where prior authorization **might be required** if the procedure is performed **outpatient**.

	Outpatient
Commercial Managed Care (HMO and POS)	This is **not** a covered service.
Commercial PPO and Indemnity	This is **not** a covered service.
Medicare HMO Blue℠	This is **not** a covered service.
Medicare PPO Blue℠	This is **not** a covered service.

CPT Codes / HCPCS Codes / ICD Codes

Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

The following codes are included below for informational purposes only; this is not an all-inclusive list.

The following CPT codes are considered investigational for Commercial Members: Managed Care (HMO and POS), PPO, Indemnity, Medicare HMO Blue and Medicare PPO Blue:

CPT Codes

CPT Codes	Description
22586	Arthrodesis, pre-sacral interbody technique, including disc space preparation, discectomy, with posterior instrumentation, with image guidance, includes bone graft when performed, L5-S1 interspace

Description

Interbody Fusion

Interbody fusion is a surgical procedure that fuses 2 adjacent vertebral bodies of the spine. Lumbar interbody fusion may be performed in patients with spinal stenosis and instability, spondylolisthesis, scoliosis, following a discectomy, or for adjacent-level disc disease.

Axial Lumbosacral Interbody Fusion

Axial lumbosacral interbody fusion (also called presacral, transsacral, or paracoccygeal interbody fusion) is a minimally invasive technique designed to provide anterior access to the L4-S1 disc spaces for interbody fusion while minimizing damage to muscular, ligamentous, neural, and vascular structures. It is performed under fluoroscopic guidance.

An advantage of axial lumbosacral interbody fusion is that it preserves the annulus and all paraspinous soft tissue structures. However, there is an increased need for fluoroscopy and an inability to address intracanal pathology or visualize the discectomy procedure directly. Complications of the axial approach may include perforation of the bowel and injury to blood vessels and/or nerves.

Summary

Axial lumbosacral interbody fusion (also called presacral, transsacral, or paracoccygeal interbody fusion) is a minimally invasive technique designed to provide anterior access to the L4-S1 disc spaces for interbody fusion while minimizing damage to muscular, ligamentous, neural, and vascular structures. It is performed under fluoroscopic guidance.

For individuals who have degenerative spine disease at the L4-S1 disc spaces who receive axial lumbosacral interbody fusion, the evidence includes a comparative systematic review of case series and a retrospective comparative study. Relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. The systematic review found that fusion rates were higher following transforaminal lumbosacral interbody fusion than following axial lumbosacral interbody fusion, although this difference decreased with use of bone morphogenetic protein or pedicle screws. The findings of this systematic review were limited by the lack of prospective comparative studies and differences in how fusion rates were determined. Studies have suggested that complication rates may be increased with 2-level axial lumbosacral interbody fusion. Controlled trials with clinical outcome measures are needed to better define the benefits and risks of this procedure compared with treatment alternatives. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

Policy History

Date	Action
6/2024	Annual policy review. References updated. Policy statements unchanged.
6/2023	Annual policy review. Policy statements unchanged.
6/2022	Annual policy review. Description, summary, and references updated. Policy statements unchanged.
5/2021	BCBSA National medical policy review. Description, summary, and references updated. Policy statements unchanged.
6/2020	BCBSA National medical policy review. Description, summary and references updated. Policy statements unchanged.
5/2019	BCBSA National medical policy review. Description, summary and references updated. Policy statements unchanged.
1/2019	Clarified coding information.
1/2018	Clarified coding information.
5/2016	New references added from BCBSA National medical policy.
12/2015	Added coding language.
12/2014	New references added from BCBSA National medical policy.
2/2014	New references added from BCBSA National medical policy.
12/2012	Updated to add new CPT code 22586.
9/2012	Updated with New medical policy describing ongoing non-coverage. Information was transferred from medical policy 617, Minimally Invasive Lumbar Interbody Fusion.
1/2012	Reviewed at MPG – Neurology and Neurosurgery, no changes in coverage were made.
12/1/2011	New policy, effective 12/1/2011

Information Pertaining to All Blue Cross Blue Shield Medical Policies

Click on any of the following terms to access the relevant information:
Medical Policy Terms of Use
Managed Care Guidelines
Indemnity/PPO Guidelines
Clinical Exception Process
Medical Technology Assessment Guidelines

References

1. U.S. Food and Drug Administration. Premarket Notification [510(K)] Summary. TranS1 AxiaLIF Fixation System. 2007; https://www.accessdata.fda.gov/cdrh_docs/pdf7/K073514.pdf. Accessed March 2024.
2. U.S. Food and Drug Administration. Premarket Notification [510(K)] Summary. TranS1 AxiaLIF II System. 2008; https://www.accessdata.fda.gov/cdrh_docs/pdf7/K073643.pdf. Accessed March 10, 2023.
3. Shen FH, Samartzis D, Khanna AJ, et al. Minimally invasive techniques for lumbar interbody fusions. Orthop Clin North Am. Jul 2007; 38(3): 373-86; abstract vi. PMID 17629985
4. Schroeder GD, Kepler CK, Millhouse PW, et al. L5/S1 Fusion Rates in Degenerative Spine Surgery: A Systematic Review Comparing ALIF, TLIF, and Axial Interbody Arthrodesis. Clin Spine Surg. May 2016; 29(4): 150-5. PMID 26841206
5. Whang PG, Sasso RC, Patel VV, et al. Comparison of axial and anterior interbody fusions of the L5-S1 segment: a retrospective cohort analysis. J Spinal Disord Tech. Dec 2013; 26(8): 437-43. PMID 24196923
6. Tobler WD, Gerszten PC, Bradley WD, et al. Minimally invasive axial presacral L5-S1 interbody fusion: two-year clinical and radiographic outcomes. Spine (Phila Pa 1976). Sep 15 2011; 36(20): E1296-301. PMID 21494201
7. Zeilstra DJ, Miller LE, Block JE. Axial lumbar interbody fusion: a 6-year single-center experience. Clin Interv Aging. 2013; 8: 1063-9. PMID 23976846

8. Gerszten PC, Tobler W, Raley TJ, et al. Axial presacral lumbar interbody fusion and percutaneous posterior fixation for stabilization of lumbosacral isthmic spondylolisthesis. J Spinal Disord Tech. Apr 2012; 25(2): E36-40. PMID 21964453
9. Marchi L, Oliveira L, Coutinho E, et al. Results and complications after 2-level axial lumbar interbody fusion with a minimum 2-year follow-up. J Neurosurg Spine. Sep 2012; 17(3): 187-92. PMID 22803626
10. Gundanna MI, Miller LE, Block JE. Complications with axial presacral lumbar interbody fusion: A 5-year postmarketing surveillance experience. SAS J. 2011; 5(3): 90-4. PMID 25802673
11. Lindley EM, McCullough MA, Burger EL, et al. Complications of axial lumbar interbody fusion. J Neurosurg Spine. Sep 2011; 15(3): 273-9. PMID 21599448
12. North American Spine Society. Diagnosis and treatment of degenerative lumbar spondylolisthesis. 2nd Ed. 2014; https://www.spine.org/Documents/ResearchClinicalCare/Guidelines/Spondylolisthesis.pdf. Accessed March 2024.
13. National Institute for Health and Care Excellence (NICE). Transaxial interbody lumbosacral fusion for severe chronic low back pain IPG620 2018; https://www.nice.org.uk/guidance/ipg620 Accessed March 2024.