BlueCross BlueShield Geography | BlueDistinction® Specialty Care

Selection Criteria:

2025 Spine Surgery

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BlueCross BlueShield Association

Document Overview

The Program Selection Criteria outlines the Quality, Business, and Cost of Care Selection Criteria and evaluation processes used to determine eligibility for the Blue Distinction® Centers (BDC) for Spine Surgery program (Program).

Sections of this document include:

Blue Distinction Centers for Spine Surgery

Since 2009, the BDC for Spine Surgery program has been evaluating facilities that offer elective spine surgery for adult patients aged 18 years and older for degenerative diseases. The Program has evolved to include an evaluation of:

- Data from clinical registries
- Enhanced Recovery after Surgery (ERAS) practices
- Support for healthy communities, and
- Screening for mental health and substance use disorder

This Program evaluates performance measures and additional measures collected from the 2025 BDC for Spine Surgery Provider Survey completed by a facility representative(s); as well as facilities that participate and consented to have patient outcomes submitted directly from the American Spine Registry (ASR), a joint effort by the American Association of Neurological Surgeons (AANS) and the American Academy of Orthopedic Surgeons (AAOS).

Designation as a BDC for Spine Surgery differentiates facilities locally, as well as nationally, and includes two levels of designation:

- **Blue Distinction Centers (BDC):** Facilities recognized for their expertise in delivering specialty care.
- **Blue Distinction Centers+ (BDC+)**: Facilities recognized for their expertise and cost-efficiency in delivering specialty care.

Quality is Key: Only *facilities that first meet nationally established quality measures for BDC will be considered for designation as a BDC+.*

Evaluation Process

In 2024, local Blue Plans invited more than 3,400 facilities across the country to be considered for the Blue Distinction Centers for Spine Surgery designation; over 1100 facilities applied and were evaluated on objective, transparent selection criteria with Quality, Business, and Cost of Care components. Table 1 below outlines the data sources used for evaluation under this Program.

Table 1: Data Sources

Selection Criteria Components	Data Source	Blue Distinction Centers (BDC)	Blue Distinction Centers+ (BDC+)
Quality	• Quality data supplied by applicant facility in the Provider Survey • American Spine Registry (ASR) *Only for facilities that participate and consented* • Local Blue Plan Quality Criteria *(if applicable)*	✓	✓
Business	• Data supplied by Blue Plan in the Plan Survey • Review of Blue Brands Criteria • Local Blue Plan Business Criteria *(if applicable)*	✓	✓
Cost of Care	• Blue Health Plan Claims Data • Local Blue Plan Cost Criteria *(if applicable)*		✓

Note: Designations are awarded to individual facilities (i.e., unique bricks-and-mortar facilities with unique addresses). Any facility with multiple locations (different addresses) was evaluated separately for each location. Health systems and other groups of multiple facilities/clinics are not designated collectively.

Quality Evaluation

Blue Distinction Specialty Care (BDSC) programs establish a nationally consistent approach to evaluating quality and safety by incorporating quality measures with meaningful impact. Selection Criteria continues to evolve through each evaluation cycle, consistent with medical advances and measurement in this specialty area. The measurement framework for this and other Blue Distinction programs were developed using the following guiding principles:

- Align with credible, evidence-based, transparent, nationally established measures with an emphasis on improved outcomes.
- Implement a nationally consistent evaluation approach.
- Include measures designed to close clinical care gaps recognized as affecting longevity and quality of life and/or contributing to higher spend.
- Evolve the selection criteria, consistent with medical advances and objective measures demonstrating improved health outcomes.
- Apply a fair and consistent evaluation approach that identifies facilities that meaningfully differentiate the delivery of care.

Quality Measure Selection

Facilities were evaluated based on quality measures developed through a collaborative process involving the medical community, Blue Plans, quality measurement experts, and review of medical literature. This process also included an analysis of national quality and safety initiatives, and a thorough analysis of meaningful quality measures. Quality Selection Criteria includes general facility structure and process measures, and performance measures specific to cervical and lumbar spine surgery. The evaluation was based on facility responses to the Provider Survey for cases performed during the most recent 12 months prior to submitting the Provider Survey; also included are performance measures from the American Spine Registry (ASR) for those facilities that participate and consented. ***Participation in the ASR will become a requirement with any future cycles of this Program.***

The selected measures are incorporated into the final aggregate scoring model used for evaluating facilities. The Program aims to create a comprehensive model that demonstrates quality performance at least ten percent (10%) better than the comparison group, while providing Blue Member access to designated facilities in each of the top fifty (50) MSAs.

Furthermore, Quality Selection Criteria scoring was based on a ninety percent (90%) lower confidence limit (LCL) of the required performance measures, rather than the actual point estimate (or rate) of those measures. This approach benefits each facility by accounting for potential measurement error, based upon statistical confidence predictions. If a facility's LCL is equal to or below the threshold, its performance meets or exceeds the threshold, thus meeting the quality scoring criteria for that measure. Conversely, if a facility's LCL is above the threshold, it indicates that the facility's performance is below the threshold and that facility will not meet the quality scoring criteria for that measure. An exception to this scoring rule is the patient reported outcomes measures (PROMs). These measures were not scored and are informational only; however, higher rates are considered better.

Performance measures were evaluated only if the analytic measure volume (measure denominator) reported was greater than or equal to one (1).If the reported analytic measure volume was less than one (1), then that performance measure was not evaluated due to insufficient data.

Table 2 below translates confidence interval (CI) results into "meets criteria" or "does not meet criteria" categories.

Table 2: Lower Confidence Limit (LCL) Evaluation

Lower Confidence Limit (LCL) Evaluation Lower Results are Better	
Facility Evaluation Result	**Facility's Lower Confidence Limit (LCL)**
Meets Criteria	LCL is **Below** or **Equal** to the Threshold
Does Not Meet Criteria	LCL is **Above** the Threshold

Quality Selection Criteria

The Quality Selection Criteria are outlined below and separated into two (2) tables:

- **Table 3**: Quality Selection Criteria for Hospitals
- **Table 4**: Quality Selection Criteria for Ambulatory Surgery Centers

Scoring of quality measures is based on both required and flexible measures.

- The facility must meet **all** required quality measures to be considered for designation.
- The facility must meet **all** flexible measures to be considered for designation. These measures require the facility to satisfy a specified number of elements within each measure.
- Informational measures are excluded from the scoring evaluation and are solely intended as an educational tool for quality improvement.

Data sources include facility responses from the Provider Survey and/or AANS/AAOS ASR data for those facilities who participate and consented.

Table 3: Quality Selection Criteria for Hospitals

Quality Selection Criteria: Hospitals		
Measure Name	**Data Source**	**Selection Criteria Description**
REQUIRED - Structure and Process Measures		
Facility Accreditation*	Provider Survey Question #5	Facility is fully accredited by **at least one** of the following national accreditation organizations: * • The Joint Commission (TJC) in the Hospital Accreditation Program • Accreditation Commission for Health Care (ACHC) in the Acute Care Hospital Accreditation Program • DNV GL Healthcare in the National Integrated Accreditation for Healthcare Organizations (NIAHO®) Hospital Accreditation Program • Center for Improvement in Healthcare Quality (CIHQ) in the CIHQ Hospital Accreditation Program **NOTE: To enhance quality while improving Blue Members' access to qualified facilities alternate local Accreditations that are at least as stringent as any National Accreditations above, may be offered under the local Blue Plan Criteria; for details, contact the facility's local Blue Plan.*
Total Spine Surgery Procedure Volume	Provider Survey Question #20	Facility's total procedure volume for spine surgery, reported for the most recent 12 months at the time of application, is **greater than or equal to 60 procedures**
Local Plan Quality Criteria (If Applicable)	Plan Survey	An individual Blue Plan, at its own independent discretion, may establish and apply local quality requirements as additional Local Plan Quality Selection Criteria for eligibility in a Blue Distinction Centers program, for facilities located within its Service Area.
REQUIRED - Performance Measures		
Analytic Volume (Measure Denominators)	Provider Survey Questions #22, #23, & 24 **OR** AAOS ASR Data	Facility must have **greater than or equal to one (1)** procedure in the denominator for **each measure** for the measure to be evaluated.
90 Day Postoperative Readmission Rate	Provider Survey Question #22 **OR** ASR Data	Facility's 90 Day Postoperative Readmission Rates' lower confidence limit (LCL) is **less than or equal to 5.19**
90 Day Postoperative Complication Composite Rate	Provider Survey Question #23 **OR** ASR Data	Facility's 90 Day Postoperative Complication Composite Rates' lower confidence limit (LCL) is **less than or equal to 3.03** Complications included in measure: Surgical site infection (SSI), deep vein thrombosis (DVT), pulmonary embolism (PE), dural tears, and return to operating room/reoperation related to primary procedure.
90 Day Postoperative Mortality Rate	Provider Survey Question #24 **OR** ASR Data	Facility's 90 Day Postoperative Mortality Rates' lower confidence limit (LCL) is **less than or equal to 0.23**
FLEXIBLE – Structure and Process Measures		
Enhanced Recovery After Surgery (ERAS) Practices	Provider Survey Question #15	Facility must have implemented **at least sixteen (16)** out of the eighteen (18) Enhanced Recovery After Surgery ERAS perioperative practices.

Quality Selection Criteria: Hospitals		
Measure Name	**Data Source**	**Selection Criteria Description**
Pre-and Postoperative Depression and/or Substance Use Disorder Screening/Assessment and Follow-Up/ Referral Process	Provider Survey Questions #16 and 17	Facility must have at least one (1) of the following elements in place for depression and/or substance use disorders (SUD): • Depression preoperative screening and assessment • Depression postoperative screening and assessment • SUD preoperative screening and assessment • SUD postoperative screening and assessment • Follow-up and/or referral process for positive results
INFORMATIONAL QUALITY MEASURES		
Facility Advanced Certification	Provider Survey Question #6	Facility has an advanced spine certification.
Demographic Data: Data Collection Elements	Provider Survey Question #7	Facility collects the following demographic data: **race, ethnicity, and spoken language**.
Demographic Data: Collection Methods	Provider Survey Question #8	Facility collects **self-reported** demographic data.
Demographic Data Used for Quality Improvement	Provider Survey Question #9	Facility uses the self-identified demographic data collected to improve policies/procedures, patient safety goals, or quality improvement goals.
Demographic Data Used for Identifying Health Care Disparities	Provider Survey Question #10	Facility uses the self-identified demographic data collected to stratify quality measures with the goal of identifying health care disparities.
Demographic Data Used to Stratify Quality Measures	Provider Survey Question #11	Facility uses the self-identified demographic data collected to stratify any of the following measures: clinical processes, clinical outcomes, patient experience, and/or Consumer Assessment of Healthcare Providers and Systems (CAHPS) measures.
Patient's Perception of Care Collected	Provider Survey Question #12	Facility collects patient perception of unbiased, respectful health care delivery.
Demographic Data: Staff Training	Provider Survey Question #13	Facility provides staff training on how to collect self-identified demographic data at time of onboarding, annually after onboarding, or both.
Unconscious Bias Training for Staff	Provider Survey Question #14	Facility provides unconscious bias training to address health care team member biases and stigmas; and to promote respectful and equitable care.
American Spine Registry (ASR) Participation & Data Available	Provider Survey Question #21	Facility participates in the American Spine Registry (ASR) and has data available for patient outcome measures. ***Note: This will become a requirement with any future cycles of this Program.***
Preoperative and Postoperative Patient Reported Outcomes for Cervical Spine: ACSS-4	Provider Survey Question #25 **OR** ASR Data	Facility has elective cervical spine patients complete both a 90-day preoperative and 30 to 150-days postoperative functional/health status assessment.

Quality Selection Criteria: Hospitals		
Measure Name	**Data Source**	**Selection Criteria Description**
Preoperative and Postoperative Patient Reported Outcomes for Lumbar Spine: ACSS-8	Provider Survey Question #26 **OR** ASR Data	Facility has elective lumbar spine patients complete both a 90-day preoperative and 30 to 150-days postoperative functional/health status assessment.

Table 4: Quality Selection Criteria for Ambulatory Surgery Centers

Quality Selection Criteria: Ambulatory Surgery Centers (ASC)		
Measure Name	**Data Source**	**Selection Criteria Description**
REQUIRED - Structure and Process Measures		
Facility Accreditation*	Provider Survey Question #5	ASC is fully accredited by **at least one** of the following national accreditation organizations: * • The Joint Commission (TJC) in the Ambulatory Health Care Accreditation Program • Accreditation Commission for Health Care (ACHC) in the Ambulatory Care Accreditation Program • QUAD A for Ambulatory Surgery Centers • Accreditation Association for Ambulatory Health Care (AAAHC) as an Ambulatory Surgery Center • Accredited as an additional location under the hospital system's Hospital Accreditation, refer to Table 3 for list of hospital accreditations. **NOTE: To enhance quality while improving Blue Members' access to qualified facilities, alternative local Accreditations that are at least as stringent as any National Accreditations above, may be offered under the local Blue Plan Criteria; for details, contact the facility's local Blue Plan.*
Total Spine Surgery Procedure Volume	Provider Survey Question #20	ASC's total procedure volume for spine surgeries, reported for the most recent 12 months at the time of application, is **greater than or equal to 30 procedures**
Local Plan Quality Criteria (If Applicable)	Plan Survey	An individual Blue Plan, at its own independent discretion, may establish and apply local quality requirements as additional Local Plan Quality Selection Criteria for eligibility in a Blue Distinction Centers program, for facilities located within its Service Area.
REQUIRED - Performance Measures		
Analytic Volume (Measure Denominators)	Provider Survey Questions #22, #23, & 24 **OR** ASR Data	ASC must have **greater than or equal to one (1)** procedure in the denominator for **each measure** for the measure to be evaluated.
90 Day Postoperative Readmission Rate	Provider Survey Question #22 **OR** ASR Data	ASC's 90 Day Postoperative Readmission Rates' lower confidence limit (LCL) is **Less than or equal to 1.37**

Quality Selection Criteria: Ambulatory Surgery Centers (ASC)		
Measure Name	**Data Source**	**Selection Criteria Description**
90 Day Postoperative Complication Composite Rate	Provider Survey Question #23 **OR** ASR Data	ASC's 90 Day Postoperative Complication Composite Rates' lower confidence limit (LCL) is **Less than or equal to 1.12** Complications included in measure: Surgical site infection (SSI), deep vein thrombosis (DVT), pulmonary embolism (PE), dural tears, and return to operating room/reoperation related to primary procedure.
90 Day Postoperative Mortality Rate	Provider Survey Question #24 **OR** ASR Data	ASC's 90 Day Postoperative Mortality Rates' lower confidence limit (LCL) is **Less than or equal to 0.07**
FLEXIBLE – Structure and Process Measure		
Enhanced Recovery After Surgery (ERAS) Practices	Provider Survey Question #15	ASC must have implemented **at least sixteen (16)** out of the eighteen (18) Enhanced Recovery After Surgery (ERAS) perioperative practices.
INFORMATIONAL QUALITY MEASURES		
Facility Advanced Certification	Provider Survey Question #6	ASC has an advanced spine surgery certification.
Demographic Data: Data Collection Elements	Provider Survey Question #7	ASC collects the following demographic data: **race, ethnicity, and spoken language**.
Demographic Data: Collection Methods	Provider Survey Question #8	ASC collects **self-reported** demographic data.
Demographic Data Used for Quality Improvement	Provider Survey Question #9	ASC uses the self-identified demographic data collected to improve policies/procedures, patient safety goals, or quality improvement goals.
Demographic Data Used for Identifying Health Care Disparities	Provider Survey Question #10	ASC uses the self-identified demographic data collected to stratify quality measures with the goal of identifying health care disparities.
Demographic Data Used to Stratify Quality Measures	Provider Survey Question #11	ASC uses the self-identified demographic data collected to stratify any of the following measures: clinical processes, clinical outcomes, patient experience, and/or Consumer Assessment of Healthcare Providers and Systems (CAHPS) measures (i.e., Outpatient and Ambulatory Surgery [OAS] CAHPS)
Patient's Perception of Care Collected	Provider Survey Question #12	ASC collects patient perception of unbiased, respectful health care delivery.
Demographic Data: Staff Training	Provider Survey Question #13	ASC provides staff training on how to collect self-identified demographic data at time of onboarding, annually after onboarding, or both.
Unconscious Bias Training for Staff	Provider Survey Question #14	ASC provides unconscious bias training to address health care team member biases and stigmas; and to promote respectful and equitable care.
Depression and/or Substance Use Disorder Pre-and Postoperative Screening Assessment	Provider Survey Question #16	ASC assesses and screens for depression and/or substance use disorders, preoperatively and/or postoperatively, using an industry standard tool.

Quality Selection Criteria: Ambulatory Surgery Centers (ASC)		
Measure Name	**Data Source**	**Selection Criteria Description**
Depression and/or Substance Use Disorder Follow-Up Process for Positive Assessments	Provider Survey Question #17	ASC has a process in place for follow-up and/or referral for positive assessments and screenings for depression and/or substance use disorders.
American Spine Registry (ASR) Participation & Data Available	Provider Survey Question #21	ASC participates in the American Spine Registry (ASR) and has data available for patient outcome measures. ***Note: This will become a requirement with any future cycles of this Program.***
Preoperative and Postoperative Patient Reported Outcomes for Cervical Spine: ACSS-4	Provider Survey Question #25 **OR** ASR Data	ASC has elective cervical spine patients complete both a 90-day preoperative and 30 to 150-days postoperative functional/health status assessment.
Preoperative and Postoperative Patient Reported Outcomes for Lumbar Spine: ACSS-8	Provider Survey Question #26 **OR** ASR Data	ASC has elective lumbar spine patients complete both a 90-day preoperative and 30 to 150-days postoperative functional/health status assessment.

Business Selection Criteria

The Business Selection Criteria (Table 5) consists of the following components:

- Provides Spine Surgery procedures
- Facility Participation
- Surgeon Participation
- Blue Brands Criteria; and
- Local Blue Plan Criteria (if applicable)

A facility must meet **all** components listed in Table 5 to meet the Business Selection Criteria for the Blue Distinction Centers for Spine Surgery designation. Information related to the Business Selection Criteria is collected through the Plan Survey.

Table 5: Business Selection Criteria

Business Selection Criteria	
Spine Surgery Procedures	Facility must provide Spine Surgery procedures.
Facility Participation	Facility must participate in the local Blue Plan's BlueCard Preferred Provider Organization (PPO) Network.

Business Selection Criteria	
Surgeon Participation*	All Surgeons identified in the Provider Survey are required to participate in the local Blue Plan's BlueCard PPO Network.
Blue Brands Criteria	Facility and its corporate family meet BCBSA criteria for avoiding conflicts with BCBSA logos and trademarks.
Local Blue Plan Criteria (if applicable)	An individual Blue Plan, at its own independent discretion, may establish and apply local business requirements as additional Selection Criteria for eligibility in a Blue Distinction Centers program, for facilities located within its Service Area.

**De Minimis Rule may be applied to the Physician Specialists Participation criteria, at the local Blue Plan's discretion.*

Cost of Care Selection Criteria

In addition to meeting the nationally established, objective quality and business measures for BDC, an applicant facility must also meet **all** the following Cost of Care Selection Criteria (Table 6) requirements to be considered eligible for the BDC+ designation.

Table 6: Cost of Care Selection Criteria

Cost of Care Selection Criteria	
Measure Name	**Selection Criteria Description**
Episode Volume: Procedures	The facility has **greater than or equal to 5** matched episodes of cost data in at **least two** of the four Clinical Categories: • Cervical Spinal Fusion • Lumbar Spinal Fusion • Cervical Laminectomy and Discectomy • Lumbar Laminectomy and Discectomy
Composite Cost Index	Facility's Composite Cost Index must be less than the applicable Plan Cost Index. The Plan Cost Index offers local differentiation and varies by State, to reflect relative cost efficiencies within each Blue Plan's Service Area.
Local Plan Cost Criteria **(If Applicable)**	An individual Blue Plan, at its own independent discretion, may establish and apply additional local cost requirements as Local Plan Cost Selection Criteria for eligibility in a Blue Distinction Centers program, for facilities **located within its Service Area**.

Quality is Key: Only facilities that first meet nationally established quality and business measures for Blue Distinction Centers will be considered for designation as a Blue Distinction Center+.

Cost Selection Criteria were set based on the following market goals:

- Cost savings differential greater than 20% of BDC+ facilities across the national program, when compared to all other facilities (non-BDC+ eligible evaluated facilities and non-evaluated facilities).
- Cost savings differentials for individual Plan's Service Area, which provide differentiation at a local level, and may vary at the State level. For details contact the local Blue Plan.
- Broad geographic distribution and member accessibility, targeting accessibility in the majority of states and top 50 Metropolitan Statistical Areas (MSAs)

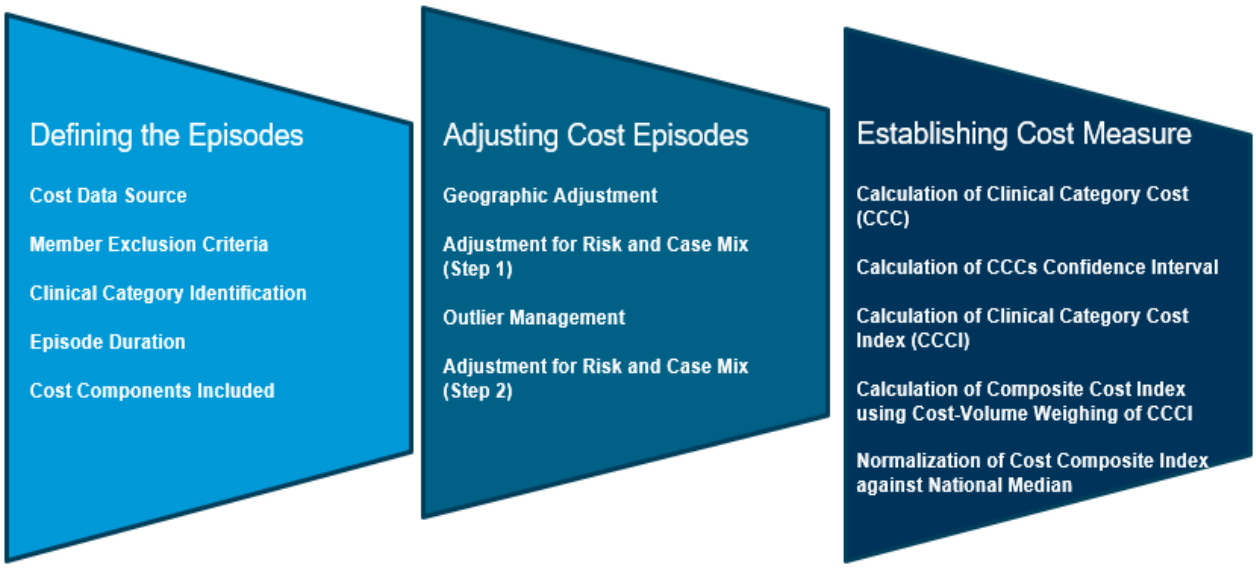
Cost of Care Evaluation

Cost of care measures were designed to address market and consumer demand for cost savings and affordable health care. The Cost of Care Selection Criteria was used to provide a consistent and objective approach to identify BDC+ facilities. The inputs and methodology used in the cost of care evaluation are explained below.

Cost of Care Methodology Framework

The cost of care evaluation uses a consistent framework to define and adjust episodes, and to establish and compare the resulting cost measures.

Figure 1: Cost of Care Methodology Framework Illustration



Defining Cost Episodes of Care

Cost of Care evaluation was based on a nationally consistent analysis of Blue Plan Claims data. To provide validity for comparisons, cost analytics for the BDC for Spine Surgery program focuses on cervical and lumbar spine procedures.

Cost Data Source

Each facility's cost of care is calculated using adjusted allowed amounts for spine specific episodes of care for actively enrolled Blue Members, derived from available Blue Plans' PPO claims data with an episode trigger date from **July 1, 2020, through June 30, 2023, and paid through September 30, 2023**.

Clinical Category Identification Criteria

Episodes of care are identified and defined based on diagnosis and/or procedure codes billed by hospitals and physicians. In the BDC for Spine Surgery program, episodes are triggered by surgery procedures using CPT, HCPCS, and ICD-10 procedure codes. For example, a lumbar spinal fusion episode is triggered by service code(s) for that procedure.

Relevant clinical categories for this BDC designation are cervical spinal fusion, lumbar spinal fusion, cervical laminectomy and discectomy, and lumbar laminectomy and discectomy.

To improve clinical comparability of episodes within a clinical category, episodes with the most typical primary diagnoses are selected and included (see Table 7, below).

The remaining atypical primary diagnoses, as well as episodes with evidence of diagnosis codes indicating high-cost comorbidity (e.g., cancer, chronic renal failure [CRF]), were excluded.

Table 7: Clinical Category and Primary Diagnosis Included

Clinical Category	Primary Diagnosis Included
Cervical Fusion	Cervical Spondylosis
	Cervical Disc Disease
	Cervical Spinal Stenosis
	Cervical Radiculitis
Cervical Laminectomy/Discectomy	Cervical Spondylosis
	Cervical Disc Disease
	Cervical Spinal Stenosis
	Cervical Radiculitis
Lumbar Fusion	Lumbar Spondylosis
	Lumbar Disc Disease
	Lumbar Spinal Stenosis
	Lumbar Radiculitis
Lumbar Laminectomy/Discectomy	Lumbar Spondylosis
	Lumbar Disc Disease
	Lumbar Spinal Stenosis
	Lumbar Radiculitis

Clinical category costs are adjusted for the impact of significant patient co-morbidities, via risk adjustment methods; and high-cost outlier cases are being managed, as outlined below.

Episode Duration and Continuous Eligibility Requirement

Each surgery episode type has time windows before and after the episode trigger event within which relevant services may be included. The episode window for all four spinal procedures begins 30 days prior to date of admission of the index admission and ends 90 days following discharge from the index admission. Episodes will be included in the analysis only if the member is continuously eligible for Blue Cross Blue Shield (BCBS) PPO benefits throughout the episode duration. Incomplete episodes (such as gaps in member eligibility during the look-back and look-forward windows and lack of both facility and professional claims) were excluded.

Cost Components Included in Episode

After an episode was "triggered," services are linked to the episode in a comprehensive and consistent manner to improve completeness and comparability of costs. Claims were included in all treatment episodes for which the claim was determined to be relevant. Pharmacy claims are not included in treatment episodes for facility cost evaluation.

Member Inclusion/Exclusion criteria:

The final subset of episodes included in Blue Distinction Centers+ (BDC+) measurement was identified by applying inclusion or exclusion criteria based on both general episode characteristics and procedure-specific clinical logic, i.e., BCBS PPO product, age, gender, matching, and availability of a geographic adjustment factor (GAF). The specific inclusion/exclusion criteria for the BDC for Spine Surgery program is included in Table 8, below.

Table 8: Summary of Episode Inclusion/Exclusion Criteria

Criteria	Inclusion/Exclusion Specifications
Blue Plan Claims Timeframe and Primary Index Inclusion	• **Blue Plan Claims Timeframe:** July 1, 2020, through June 30, 2023, and paid through September 30, 2023. • Primary index procedure (Spine Surgery) occurred between 7/1/2020 and 6/30/2023 • Blue Plan Claim was matched to the applicant facility
Episode Duration Inclusion	• **Look-Back Period** = 30 days prior to the date of the index admission. • **Index Admission** = Spine Surgery procedure. • **Look-Forward Period** = 90 days post discharge from index admission
Episode Cost Components Inclusion	• Episode includes both **facility and professional** charges (except for an ASC billing through professional claims only) • Includes only procedures with appropriate diagnosis code (Table 7, above) • **Look-Back Period** = services provided for pre-operative evaluation or preparation • **Index Admission** = services corresponding to the triggering procedure, a supporting component for the surgery, a sequela; a service pertaining to the patient's underlying condition for which the surgery was provided; or an unrelated co-morbidity

Criteria	Inclusion/Exclusion Specifications
	• **Look-Forward Period** = services provided as a supporting component of the surgery itself or if provided as care for a complication of the surgery or underlying condition
Member Eligibility Status Inclusions	• Member was continuously enrolled in a Blue Plan PPO product for the duration of the episode. • Member aged 18 to 64 years old at time of surgery • Member gender female or male (unknown gender was excluded from episode)
Site of Service Inclusions	• Hospital inpatient (includes hospital outpatient) • Ambulatory Surgery Centers
Member Discharge Status Exclusions	• Exclude members with discharge status either death in medical facility or Left Against Medical Advice for procedure admission
Episode Exclusions	• Excludes episodes with evidence of diagnosis codes indicating high-cost comorbidity (i.e., cancer, CRF) • Excludes episodes with evidence of unrelated procedures (i.e., overlapping episodes)

In subsequent analytic steps outlined over the next sections, clinical category costs were adjusted by factors known to have a predictable impact on costs of care. High-cost outlier episodes were managed to limit the impact on average costs for a facility. No other clinical exclusions were applied.

Adjusting Episode Costs

Adjustments to episode costs are needed for both the validity and fairness of cost comparisons among facilities, and included two types of adjustments:

- Factor adjustment – which adjusts for factors known to have a predictable impact on costs of care; and
- Outlier management – which protects against rare, unpredictable, high-cost and very low frequency events that could have a dramatic impact on average costs for a facility.

Two types of factor adjustments are commonly made in health care cost comparisons:

- Adjustments for predictable cost differences related to geography; and
- Adjustments for predictable cost differences due to risk (or, more specifically, due to differences in the clinical characteristics of patients and age that have a measurable and predictable impact on costs).

Geographic Adjustment

Blue Distinction Specialty Care (BDSC) programs use a nationally consistent approach to evaluating facilities. Adjustment for difference in geographical cost is needed to support credible comparison of facilities in different markets, with different underlying costs that a facility cannot readily control. For this reason, cost comparisons typically include adjustments for geographic differences in the prices that a facility pays for the goods and services routinely used in the production of health care services, such as labor, utilities, and rent. A set of Geographic Adjustment Factors (GAF) has been developed by the Centers for Medicare and Medicaid Services (CMS) to adjust Medicare provider payments. The BDC for Spine Surgery program used CMS' set of CY2024 GAF values to adjust episode cost comparisons; specifically, this cycle used GAFs for 112 Geographic Practice Cost Index (GPCI) locality levels, as defined by CMS.

The ZIP code of the facility providing the episode trigger service was used to identify the applicable GAF. Specifically, the GAF used was selected from the trigger claim, reflecting the attributed facility's ZIP code, and was applied to all claims included in the episode.

The GAF was used to adjust the actual cost of an episode by "leveling the playing field" between facilities in high-cost areas versus low-cost areas. This was accomplished by dividing the episode's unadjusted allowed amount by the applicable GAF, calculated as **Adjusted Cost** = **Actual Cost / GAF**.

Adjustment for Risk and Case-Mix

Adjustment for differences in patient risk was needed to support the credible comparison of episode costs for different facilities. Risk adjustment was used to account for cost differences related to differences in patient comorbidities and conditions for patients undergoing the same treatment or admitted for the same principal condition. For example, episode costs for patients with diabetes would be expected to be higher than episode costs for patients without diabetes.

Blue Health Intelligence (BHI), BCBSA's data analytics partner, uses the Elixhauser Comorbidity Index (ECI) as the comorbidity adjustment model to account for the impact of health status on episode cost. With the risk of mortality as the ultimate measure of patient health, the ECI score, and the risk weights associated with each of the ECI conditions are used to establish the overall measure of patient risk and health status.

As an indicator of patient complexity, the comorbidity index is used to adjust episode costs to account for differences directly related to the patient's health status (i.e., risk). The ECI was developed as part of the Agency for Healthcare Research and Quality (AHRQ) Healthcare Cost and Utilization Project (HCUP) to use administrative claims data to flag comorbidities that co-exist at the time of an inpatient admission or outpatient encounter and affect health care outcomes, including the risk of mortality and readmission.

The ECI (v2023.1) identifies 38 individual condition categories and empirically assigns weights that represent the relative risk of mortality for a patient with that condition. BHI uses the same ECI condition categories, diagnosis mappings, and summing methodology published by AHRQ. The AHRQ condition weights are transformed such that the scale starts at zero to remove the impact of negative weights while maintaining the hierarchical relationship of the conditions. We expanded the look-back period for ECI condition flagging to the year prior to the episode start.

The ECI score is calculated using all coded diagnoses on all claims as of one day prior to the start of the episode for condition episodes and as of one day prior to the procedure date for treatment episodes. Analyzing a member's claims history allows for consideration of all comorbid conditions, regardless of whether they were coded during the admission or not, while avoiding flagging complications as comorbidities. Members without claim history where an ECI score could not be calculated are assigned a score of zero.

The ECI scores were assigned to terciles of low, medium, and high, which fed into the risk adjustment. In addition to risk, multiple subcategories that accounted for expected differences in cost due to procedure subcategory, setting (inpatient, outpatient, and ASC), gender, and age were used to calculate risk adjustment factors. Separate bands (i.e., strata) were included to provide better risk assessment within each clinical category. As an example, age bands can be used to identify and adjust for age-related differences in expected costs.

Adjustment for Clinical Subcategory

Fusion procedures were further sub-classified as single (1 levels fused) or multiple (2 or more levels fused). This sub-classification was implemented as follows: if an episode was not triggered by an ICD-10 code considered "2 or more" and an add-on CPT code was not associated with the episode, then it was considered single. Otherwise, the episode was considered multiple.

Clinical subcategories are shown below.

Table 9: Clinical Category and Sub-Category

Clinical Category	Sub-Category
Lumbar Fusion	Single
	Multiple
Lumbar Laminectomy / Discectomy	
Cervical Fusion	Single
	Multiple
Cervical Laminectomy / Discectomy	

Outlier Management

The purpose of outlier management is to protect against rare, unpredictable high-cost events that could have a dramatic impact on a facility's calculated average cost performance. Geographically adjusted episode costs were then winsorized accordingly for each clinical category and risk level distribution. Thus, for example, adjusted per episode costs were winsorized separately within each spine procedure in in all age-bands and risk levels low, medium, and high. In the BDC for Spine Surgery program, per-episode costs were winsorized (capped) at the 98th percentile for high costs and at the 2nd percentile for low costs of episodes for each applicable distribution.

Minimum Episode Volume Requirement – National

At the national level, a minimum of 20 episodes per risk cohort was required to calculate consistent cost estimates in each sub-category level. All joint risk cohorts met this threshold, and none were excluded from the analysis.

Calculation of Risk Adjustment Factor and Expected Episode Costs

The mean of the geographically adjusted, winsorized episode costs for each clinical category/risk level combination at the national level will be expected cost for that clinical category/risk level combination. The national expected cost for each clinical category/risk level combination will be divided by the national mean cost for the clinical category, to calculate the Risk Ratio for each clinical category/risk level combination. The Risk Adjustment Factor (which is the inverse of the Risk Ratio) is multiplied by each facility's geographically adjusted and winsorized facility episode costs for each clinical category/risk level combination to normalize for risk, resulting in a final episode cost that is both geographically adjusted, and risk adjusted.

Establishing a Cost Measure

Each episode was attributed to the facility where the primary surgery occurred, based on trigger events that occurred at that facility for each of the spine surgery clinical categories. Each facility has a separate calculation for the Clinical Category Facility Cost (CCFC) based on the median value of the adjusted episode costs. Confidence intervals (90 percent) were calculated around each Clinical Category Facility Cost (CCFC) measure; the Upper Confidence Limit (UCL) of the measure was divided by the National Median Episode Cost to become the Clinical Category Facility Cost Index (CCFCI).

The combined cost index of the median UCL was rounded down to the nearest 0.025 to give facilities the benefit of the doubt and to avoid situations where a facility narrowly missed BDC+ eligibility by an immaterial margin. The rounded median UCL was the measure used for cost scoring. For reliability, a minimum of five episodes was required within a clinical category for the data to be included in the calculation of a Composite Facility Cost Index (CompFCI) for a facility.

Using each of the Clinical Category Facility Cost Index values, an overall Composite Facility Cost Index (CompFCI) was calculated for the facility. Each Clinical Category Cost Index was weighted by that facility's own volume and facility costs to calculate a composite measure of cost called the Composite Facility Cost Index.

Composite Facility Cost Indices (CompFCI) for each facility, calculated using the UCL of individual clinical category facility cost indices (CCFI), were then compared to the cost threshold set by BCBSA. A facility was selected for BDC+ designation if the CompFCI was lower than or equal to the cost threshold set by BCBSA. For Spine Surgery 2025, the cost index threshold set by BCBSA is the Plan Cost Index. The Plan Cost Index offers local differentiation and varies by State, to reflect relative cost efficiencies within each Blue Plan's Service Area.

Questions

Contact your local Blue Plan with any questions.

Blue Distinction Centers (BDC) met overall quality measures for patient safety and outcomes, developed with input from the medical community. A Local Blue Plan may require additional criteria for facilities located in its own service area; for details, contact your Local Blue Plan. Blue Distinction Centers+ (BDC+) also met cost measures that address consumers' need for affordable health care. Each facility's cost of care is evaluated using data from its Local Blue Plan. Facilities in CA, ID, NY, PA, and WA may lie in two Local Blue Plans' areas, resulting in two evaluations for cost of care; and their own Local Blue Plans decide whether one or both cost of care evaluation(s) must meet BDC+ national criteria. National criteria for BDC and BDC+ are displayed on www.bcbs.com. Individual outcomes may vary. For details on a facility's in-network status or your own policy's coverage, contact your Local Blue Plan and ask your facility before making an appointment.

Neither Blue Cross and Blue Shield Association nor any Blue Plans are responsible for non-covered charges or other losses or damages resulting from Blue Distinction or other provider finder information or care received from Blue Distinction or other providers.

Appendix

Table 10: Spine Surgery Trigger Medical Codes

Clinical Category	Code Type	Code	Description
Cervical Spinal Fusions	CPT	63001	Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (e.g., spinal stenosis), 1 or 2 vertebral segments; cervical
Cervical Spinal Fusions	CPT	63015	Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (e.g., spinal stenosis), more than 2 vertebral segments; cervical
Cervical Spinal Fusions	CPT	63020	Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of herniated intervertebral disc; 1 interspace, cervical
Cervical or Lumbar Spinal Fusions	CPT	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, cervical or lumbar
Cervical Spinal Fusions	CPT	63045	Laminectomy, facetectomy and foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s], [e.g., spinal or lateral recess stenosis]), single vertebral segment; cervical
Cervical Spinal Fusions	CPT	63050	Laminoplasty, cervical, with decompression of the spinal cord, 2 or more vertebral segments
Cervical Spinal Fusions	CPT	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 (e.g., wire, suture, mini plates), when performed)
Cervical Spinal Fusions	CPT	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 (e.g., fluoroscopic, CT), single or multiple levels, unilateral or bilateral; cervical
Cervical Spinal Fusions	CPT	63040	Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of herniated intervertebral disc, re-exploration, single interspace; cervical
Cervical Spinal Fusions	CPT	63075	Discectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophytectomy; cervical, single interspace
Lumbar Laminectomy, Discectomy	CPT	63005	Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (e.g., spinal stenosis), 1 or 2 vertebral segments; lumbar, except for spondylolisthesis
Lumbar Laminectomy, Discectomy	CPT	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)
Lumbar Laminectomy, Discectomy	CPT	63017	Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (e.g., spinal stenosis), more than 2 vertebral segments; lumbar
Lumbar Laminectomy, Discectomy	CPT	63030	Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of herniated intervertebral disc; 1 interspace, lumbar
Lumbar Laminectomy, Discectomy	CPT	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, cervical or lumbar

Clinical Category	Code Type	Code	Description
Lumbar Laminectomy, Discectomy	CPT	63047	Laminectomy, facetectomy and foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s], [e.g., spinal or lateral recess stenosis]), single vertebral segment; lumbar
Lumbar Laminectomy, Discectomy	CPT	63056	Transpedicular approach with decompression of spinal cord, equina and/or nerve root(s) (e.g., herniated intervertebral disk), single segment; lumbar (including transfacet, or lateral extraforaminal approach) (e.g., far lateral herniated intervertebral disk)
Lumbar Laminectomy, Discectomy	CPT	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 (e.g., fluoroscopic, CT), single or multiple levels, unilateral or bilateral; lumbar
Lumbar Laminectomy, Discectomy	CPT	63042	Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of herniated intervertebral disc, re-exploration, single interspace; lumbar
Lumbar Laminectomy, Discectomy	CPT	62380	Endoscopic decompression of spinal cord, nerve root(s), including laminotomy, partial facetectomy, foraminotomy, discectomy and/or excision of herniated intervertebral disc, 1 interspace, lumber
Lumbar Laminectomy, Discectomy	CPT	S2350	Discectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophytectomy; lumbar, single interspace
Lumbar Laminectomy, Discectomy	CPT	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)
Lumbar Laminectomy, Discectomy	CPT	0719T	Posterior vertebral joint replacement, including bilateral facetectomy, laminectomy, and radical discectomy, including imaging guidance, lumbar spine, single segment
Lumbar Laminectomy, Discectomy	CPT	S2348	Decompression procedure, percutaneous, of nucleus pulposus of intervertebral disc, using radiofrequency energy, single or multiple levels, lumbar.
Lumbar Laminectomy, Discectomy	CPT	22857	Total disc arthroplasty (artificial disc), anterior approach, including discectomy to prepare interspace (other than for decompression); single interspace, lumbar
Lumbar Laminectomy, Discectomy	CPT	63052	Laminectomy, facetectomy, or foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root(s) [e.g., spinal or lateral recess stenosis], during posterior interbody arthrodesis, lumbar; single vertebral segment (list separately in addition to code for primary procedure)
Cervical Fusion	CPT	22551	Arthrodesis, anterior interbody, including disc space preparation, discectomy, osteophytectomy and decompression of spinal cord and/or nerve roots; cervical below C2
Cervical Fusion	CPT	22552	Arthrodesis, anterior interbody, including disc space preparation, discectomy, osteophytectomy and decompression of spinal cord and/or nerve roots; cervical below C2; each additional interspace (list separately in addition to code for primary procedure)
Cervical Fusion	CPT	22554	Arthrodesis, anterior interbody, including minimal discectomy to prepare interspace (other than for decompression); cervical below C2
Cervical Fusion	CPT	0219T	Placement of a posterior intrafacet implant(s), unilateral or bilateral, including imaging and placement of bone graft(s) or synthetic device(s), single level; cervical
Cervical Fusion	CPT	63081	Vertebral corpectomy (vertebral body resection), partial or complete, anterior approach with decompression of spinal cord and/or nerve root(s); cervical, single segment

Clinical Category	Code Type	Code	Description
Cervical Fusion	CPT	63082	Vertebral corpectomy (vertebral body resection), partial or complete, anterior approach with decompression of spinal cord and/or nerve root(s); cervical, each additional segment (List separately in addition to code for primary procedure)
Cervical Fusion	ICD-10	0RG1070	Fusion of Cervical Vertebral Joint with Autologous Tissue Substitute, Anterior Approach, Anterior Column, Open Approach
Cervical Fusion	ICD-10	0RG10J0	Fusion of Cervical Vertebral Joint with Synthetic Substitute, Anterior Approach, Anterior Column, Open Approach
Cervical Fusion	ICD-10	0RG10K0	Fusion of Cervical Vertebral Joint with Nonautologous Tissue Substitute, Anterior Approach, Anterior Column, Open Approach
Cervical Fusion	ICD-10	0RG1370	Fusion of Cervical Vertebral Joint with Autologous Tissue Substitute, Anterior Approach, Anterior Column, Percutaneous Approach
Cervical Fusion	ICD-10	0RG13J0	Fusion of Cervical Vertebral Joint with Synthetic Substitute, Anterior Approach, Anterior Column, Percutaneous Approach
Cervical Fusion	ICD-10	0RG13K0	Fusion of Cervical Vertebral Joint with Nonautologous Tissue Substitute, Anterior Approach, Anterior Column, Percutaneous Approach
Cervical Fusion	ICD-10	0RG1470	Fusion of Cervical Vertebral Joint with Autologous Tissue Substitute, Anterior Approach, Anterior Column, Percutaneous Endoscopic Approach
Cervical Fusion	ICD-10	0RG14J0	Fusion of Cervical Vertebral Joint with Synthetic Substitute, Anterior Approach, Anterior Column, Percutaneous Endoscopic Approach
Cervical Fusion	ICD-10	0RG14K0	Fusion of Cervical Vertebral Joint with Nonautologous Tissue Substitute, Anterior Approach, Anterior Column, Percutaneous Endoscopic Approach
Cervical Fusion	ICD-10	0RG2070	Fusion of 2 or more Cervical Vertebral Joints with Autologous Tissue Substitute, Anterior Approach, Anterior Column, Open Approach
Cervical Fusion	ICD-10	0RG20A0	Fusion of 2 or more Cervical Vertebral Joints with Interbody Fusion Device, Anterior Approach, Anterior Column, Open Approach
Cervical Fusion	ICD-10	0RG20J0	Fusion of 2 or more Cervical Vertebral Joints with Synthetic Substitute, Anterior Approach, Anterior Column, Open Approach
Cervical Fusion	ICD-10	0RG20K0	Fusion of 2 or more Cervical Vertebral Joints with Nonautologous Tissue Substitute, Anterior Approach, Anterior Column, Open Approach
Cervical Fusion	ICD-10	0RG2370	Fusion of 2 or more Cervical Vertebral Joints with Autologous Tissue Substitute, Anterior Approach, Anterior Column, Percutaneous Approach
Cervical Fusion	ICD-10	0RG23A0	Fusion of 2 or more Cervical Vertebral Joints with Interbody Fusion Device, Anterior Approach, Anterior Column, Percutaneous Approach
Cervical Fusion	ICD-10	0RG23J0	Fusion of 2 or more Cervical Vertebral Joints with Autologous Tissue Substitute, Anterior Approach, Anterior Column, Percutaneous Approach
Cervical Fusion	ICD-10	0RG23K0	Fusion of 2 or more Cervical Vertebral Joints with Nonautologous Tissue Substitute, Anterior Approach, Anterior Column, Percutaneous Approach
Cervical Fusion	ICD-10	0RG2470	Fusion of 2 or more Cervical Vertebral Joints with Autologous Tissue Substitute, Anterior Approach, Anterior Column, Percutaneous Endoscopic Approach
Cervical Fusion	ICD-10	0RG24A0	Fusion of 2 or more Cervical Vertebral Joints with interbody Fusion Device, Anterior Approach, Anterior Column, Percutaneous Endoscopic Approach
Cervical Fusion	ICD-10	0RG24J0	Fusion of 2 or more Cervical Vertebral Joints with Synthetic Substitute, Anterior Approach, Anterior Column, Percutaneous Endoscopic Approach
Cervical Fusion	ICD-10	0RG24K0	Fusion of 2 or more Cervical Vertebral Joints with Nonautologous Tissue Substitute, Anterior Approach, Anterior Column, Percutaneous Endoscopic Approach
Cervical Fusion	ICD-10	0RG10A0	Fusion of Cervical Vertebral Joint with Interbody Fusion Device, Anterior Approach, Anterior Column, Open Approach
Cervical Fusion	ICD-10	0RG13A0	Fusion of Cervical Vertebral Joint with Interbody Fusion Device, Anterior Approach, Anterior Column, Percutaneous Approach
Cervical Fusion	ICD-10	0RG14A0	Fusion of Cervical Vertebral Joint with Interbody Fusion Device, Anterior Approach, Anterior Column, Percutaneous Endoscopic Approach
Lumbar Fusion	CPT	22558	Arthrodesis, anterior interbody technique, including minimal discectomy to

Clinical Category	Code Type	Code	Description
			prepare interspace (other than for decompression); lumbar
Lumbar Fusion	CPT	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
Lumbar Fusion	CPT	22612	Arthrodesis, posterior or posterolateral technique, single level; lumbar (with lateral transverse technique, when performed)
Lumbar Fusion	CPT	22630	Arthrodesis, posterior interbody technique, including laminectomy and/or discectomy to prepare interspace (other than for decompression), single interspace; lumbar
Lumbar Fusion	CPT	22632	Arthrodesis, posterior interbody technique, including laminectomy and/or discectomy to prepare interspace (other than for decompression); Each additional interspace (list separately in addition to code for primary procedure); lumbar
Lumbar Fusion	CPT	22633	Arthrodesis, combined posterior or posterolateral technique with posterior interbody technique including laminectomy and/or discectomy sufficient to prepare interspace (other than for decompression), single interspace; lumbar
Lumbar Fusion	CPT	22634	Arthrodesis, combined posterior or posterolateral technique with posterior interbody technique including laminectomy and/or discectomy sufficient to prepare interspace (other than for decompression), each additional interspace (list separately in addition to code for primary procedure); lumbar
Lumbar Fusion	CPT	0202T	Posterior vertebral joint(s) arthroplasty (e.g., facet joint[s] replacement), including facetectomy, laminectomy, foraminotomy, and vertebral column fixation, injection of bone cement, when performed, including fluoroscopy, single level, lumbar spine
Lumbar Fusion	CPT	0221T	Placement of a posterior intrafacet implant(s), unilateral or bilateral, including imaging and placement of bone graft(s) or synthetic device(s), single level; lumbar
Lumbar Fusion	CPT	63102	Vertebral corpectomy (vertebral body resection), partial or complete, lateral extra cavitary approach with decompression of spinal cord and/or nerve root(s) (e.g., for tumor or retropulsed bone fragments); lumbar, single segment
Lumbar Fusion	ICD-10	0SG0070	Fusion of Lumbar Vertebral Joint with Autologous Tissue Substitute, Anterior Approach, Anterior Column, Open Approach
Lumbar Fusion	ICD-10	0SG0071	Fusion of Lumbar Vertebral Joint with Autologous Tissue Substitute, Posterior Approach, Posterior Column, Open Approach
Lumbar Fusion	ICD-10	0SG007J	Fusion of Lumbar Vertebral Joint with Autologous Tissue Substitute, Posterior Approach, Anterior Column, Open Approach
Lumbar Fusion	ICD-10	0SG00A0	Fusion of Lumbar Vertebral Joint with Interbody Fusion Device, Anterior Approach, Anterior Column, Open Approach
Lumbar Fusion	ICD-10	0SG00AJ	Fusion of Lumbar Vertebral Joint with Interbody Fusion Device, Posterior Approach, Anterior Column, Open Approach
Lumbar Fusion	ICD-10	0SG00J0	Fusion of Lumbar Vertebral Joint with Synthetic Substitute, Anterior Approach, Anterior Column, Open Approach
Lumbar Fusion	ICD-10	0SG00J1	Fusion of Lumbar Vertebral Joint with Synthetic Substitute, Posterior Approach, Posterior Column, Open Approach
Lumbar Fusion	ICD-10	0SG00JJ	Fusion of Lumbar Vertebral Joint with Synthetic Substitute, Posterior Approach, Anterior Column, Open Approach
Lumbar Fusion	ICD-10	0SG00K0	Fusion of Lumbar Vertebral Joint with Nonautologous Tissue Substitute, Anterior Approach, Anterior Column, Open Approach
Lumbar Fusion	ICD-10	0SG00K1	Fusion of Lumbar Vertebral Joint with Nonautologous Tissue Substitute, Posterior Approach, Posterior Column, Open Approach
Lumbar Fusion	ICD-10	0SG00KJ	Fusion of Lumbar Vertebral Joint with Nonautologous Tissue Substitute, Posterior Approach, Anterior Column, Open Approach
Lumbar Fusion	ICD-10	0SG0370	Fusion of Lumbar Vertebral Joint with Autologous Tissue Substitute, Anterior

Clinical Category	Code Type	Code	Description
			Approach, Anterior Column, Percutaneous Approach
Lumbar Fusion	ICD-10	0SG0371	Fusion of Lumbar Vertebral Joint with Autologous Tissue Substitute, Posterior Approach, Posterior Column, Percutaneous Approach
Lumbar Fusion	ICD-10	0SG037J	Fusion of Lumbar Vertebral Joint with Autologous Tissue Substitute, Posterior Approach, Anterior Column, Percutaneous Approach
Lumbar Fusion	ICD-10	0SG03A0	Fusion of Lumbar Vertebral Joint with Interbody Fusion Device, Anterior Approach, Anterior Column, Percutaneous Approach
Lumbar Fusion	ICD-10	0SG03AJ	Fusion of Lumbar Vertebral Joint with Interbody Fusion Device, Posterior Approach, Anterior Column, Percutaneous Approach
Lumbar Fusion	ICD-10	0SG03J0	Fusion of Lumbar Vertebral Joint with Synthetic Substitute, Anterior Approach, Anterior Column, Percutaneous Approach
Lumbar Fusion	ICD-10	0SG03J1	Fusion of Lumbar Vertebral Joint with Synthetic Substitute, Posterior Approach, Posterior Column, Percutaneous Approach
Lumbar Fusion	ICD-10	0SG03JJ	Fusion of Lumbar Vertebral Joint with Synthetic Substitute, Posterior Approach, Anterior Column, Percutaneous Approach
Lumbar Fusion	ICD-10	0SG03K0	Fusion of Lumbar Vertebral Joint with Nonautologous Tissue Substitute, Anterior Approach, Anterior Column, Percutaneous Approach
Lumbar Fusion	ICD-10	0SG03K1	Fusion of Lumbar Vertebral Joint with Nonautologous Tissue Substitute, Posterior Approach, Posterior Column, Percutaneous Approach
Lumbar Fusion	ICD-10	0SG03KJ	Fusion of Lumbar Vertebral Joint with Nonautologous Tissue Substitute, Posterior Approach, Anterior Column, Percutaneous Approach
Lumbar Fusion	ICD-10	0SG0470	Fusion of Lumbar Vertebral Joint with Autologous Tissue Substitute, Anterior Approach, Anterior Column, Percutaneous Endoscopic Approach
Lumbar Fusion	ICD-10	0SG0471	Fusion of Lumbar Vertebral Joint with Autologous Tissue Substitute, Posterior Approach, Posterior Column, Percutaneous Endoscopic Approach
Lumbar Fusion	ICD-10	0SG047J	Fusion of Lumbar Vertebral Joint with Autologous Tissue Substitute, Posterior Approach, Anterior Column, Percutaneous Endoscopic Approach
Lumbar Fusion	ICD-10	0SG04A0	Fusion of Lumbar Vertebral Joint with Interbody Fusion Device, Anterior Approach, Anterior Column, Percutaneous Endoscopic Approach
Lumbar Fusion	ICD-10	0SG04AJ	Fusion of Lumbar Vertebral Joint with Interbody Fusion Device, Posterior Approach, Anterior Column, Percutaneous Endoscopic Approach
Lumbar Fusion	ICD-10	0SG04J0	Fusion of Lumbar Vertebral Joint with Synthetic Substitute, Anterior Approach, Anterior Column, Percutaneous Endoscopic Approach
Lumbar Fusion	ICD-10	0SG04J1	Fusion of Lumbar Vertebral Joint with Synthetic Substitute, Posterior Approach, Posterior Column, Percutaneous Endoscopic Approach
Lumbar Fusion	ICD-10	0SG04JJ	Fusion of Lumbar Vertebral Joint with Synthetic Substitute, Posterior Approach, Anterior Column, Percutaneous Endoscopic Approach
Lumbar Fusion	ICD-10	0SG04K0	Fusion of Lumbar Vertebral Joint with Nonautologous Tissue Substitute, Anterior Approach, Anterior Column, Percutaneous Endoscopic Approach
Lumbar Fusion	ICD-10	0SG04K1	Fusion of Lumbar Vertebral Joint with Nonautologous Tissue Substitute, Posterior Approach, Posterior Column, Percutaneous Endoscopic Approach
Lumbar Fusion	ICD-10	0SG04KJ	Fusion of Lumbar Vertebral Joint with Nonautologous Tissue Substitute, Posterior Approach, Anterior Column, Percutaneous Endoscopic Approach
Lumbar Fusion	ICD-10	0SG1070	Fusion of 2 or more Lumbar Vertebral Joints with Autologous Tissue Substitute, Anterior Approach, Anterior Column, Open Approach
Lumbar Fusion	ICD-10	0SG1071	Fusion of 2 or more Lumbar Vertebral Joints with Autologous Tissue Substitute, Posterior Approach, Posterior Column, Open Approach
Lumbar Fusion	ICD-10	0SG107J	Fusion of 2 or more Lumbar Vertebral Joints with Autologous Tissue Substitute, Posterior Approach, Anterior Column, Open Approach
Lumbar Fusion	ICD-10	0SG10A0	Fusion of 2 or more Lumbar Vertebral Joints with Interbody Fusion Device, Anterior Approach, Anterior Column, Open Approach
Lumbar Fusion	ICD-10	0SG10AJ	Fusion of 2 or more Lumbar Vertebral Joints with Interbody Fusion Device, Posterior Approach, Anterior Column, Open Approach

Clinical Category	Code Type	Code	Description
Lumbar Fusion	ICD-10	0SG10J0	Fusion of 2 or more Lumbar Vertebral Joints with Synthetic Substitute, Anterior Approach, Anterior Column, Open Approach
Lumbar Fusion	ICD-10	0SG10J1	Fusion of 2 or more Lumbar Vertebral Joints with Synthetic Substitute, Posterior Approach, Posterior Column, Open Approach
Lumbar Fusion	ICD-10	0SG10JJ	Fusion of 2 or more Lumbar Vertebral Joints with Synthetic Substitute, Posterior Approach, Anterior Column, Open Approach
Lumbar Fusion	ICD-10	0SG10K0	Fusion of 2 or more Lumbar Vertebral Joints with Nonautologous Tissue Substitute, Anterior Approach, Anterior Column, Open Approach
Lumbar Fusion	ICD-10	0SG10K1	Fusion of 2 or more Lumbar Vertebral Joints with Nonautologous Tissue Substitute, Posterior Approach, Posterior Column, Open Approach
Lumbar Fusion	ICD-10	0SG10KJ	Fusion of 2 or more Lumbar Vertebral Joints with Nonautologous Tissue Substitute, Posterior Approach, Anterior Column, Open Approach
Lumbar Fusion	ICD-10	0SG1370	Fusion of 2 or more Lumbar Vertebral Joints with Autologous Tissue Substitute, Anterior Approach, Anterior Column, Percutaneous Approach
Lumbar Fusion	ICD-10	0SG1371	Fusion of 2 or more Lumbar Vertebral Joints with Autologous Tissue Substitute, Posterior Approach, Posterior Column, Percutaneous Approach
Lumbar Fusion	ICD-10	0SG137J	Fusion of 2 or more Lumbar Vertebral Joints with Autologous Tissue Substitute, Posterior Approach, Anterior Column, Percutaneous Approach
Lumbar Fusion	ICD-10	0SG13A0	Fusion of 2 or more Lumbar Vertebral Joints with Interbody Fusion Device, Anterior Approach, Anterior Column, Percutaneous Approach
Lumbar Fusion	ICD-10	0SG13AJ	Fusion of 2 or more Lumbar Vertebral Joints with Interbody Fusion Device, Posterior Approach, Anterior Column, Percutaneous Approach
Lumbar Fusion	ICD-10	0SG13J0	Fusion of 2 or more Lumbar Vertebral Joints with Synthetic Substitute, Anterior Approach, Anterior Column, Percutaneous Approach
Lumbar Fusion	ICD-10	0SG13J1	Fusion of 2 or more Lumbar Vertebral Joints with Synthetic Substitute, Posterior Approach, Posterior Column, Percutaneous Approach
Lumbar Fusion	ICD-10	0SG13JJ	Fusion of 2 or more Lumbar Vertebral Joints with Synthetic Substitute, Posterior Approach, Anterior Column, Percutaneous Approach
Lumbar Fusion	ICD-10	0SG13K0	Fusion of 2 or more Lumbar Vertebral Joints with Nonautologous Tissue Substitute, Anterior Approach, Anterior Column, Percutaneous Approach
Lumbar Fusion	ICD-10	0SG13K1	Fusion of 2 or more Lumbar Vertebral Joints with Nonautologous Tissue Substitute, Posterior Approach, Posterior Column, Percutaneous Approach
Lumbar Fusion	ICD-10	0SG13KJ	Fusion of 2 or more Lumbar Vertebral Joints with Nonautologous Tissue Substitute, Posterior Approach, Anterior Column, Percutaneous Approach
Lumbar Fusion	ICD-10	0SG1470	Fusion of 2 or more Lumbar Vertebral Joints with Autologous Tissue Substitute, Anterior Approach, Anterior Column, Percutaneous Endoscopic Approach
Lumbar Fusion	ICD-10	0SG1471	Fusion of 2 or more Lumbar Vertebral Joints with Autologous Tissue Substitute, Posterior Approach, Posterior Column, Percutaneous Endoscopic Approach
Lumbar Fusion	ICD-10	0SG147J	Fusion of 2 or more Lumbar Vertebral Joints with Autologous Tissue Substitute, Posterior Approach, Anterior Column, Percutaneous Endoscopic Approach
Lumbar Fusion	ICD-10	0SG14A0	Fusion of 2 or more Lumbar Vertebral Joints with Interbody Fusion Device, Anterior Approach, Anterior Column, Percutaneous Endoscopic Approach
Lumbar Fusion	ICD-10	0SG14AJ	Fusion of 2 or more Lumbar Vertebral Joints with Interbody Fusion Device, Posterior Approach, Anterior Column, Percutaneous Endoscopic Approach
Lumbar Fusion	ICD-10	0SG14J0	Fusion of 2 or more Lumbar Vertebral Joints with Synthetic Substitute, Anterior Approach, Anterior Column, Percutaneous Endoscopic Approach
Lumbar Fusion	ICD-10	0SG14J1	Fusion of 2 or more Lumbar Vertebral Joints with Synthetic Substitute, Posterior Approach, Posterior Column, Percutaneous Endoscopic Approach
Lumbar Fusion	ICD-10	0SG14JJ	Fusion of 2 or more Lumbar Vertebral Joints with Synthetic Substitute, Posterior Approach, Anterior Column, Percutaneous Endoscopic Approach
Lumbar Fusion	ICD-10	0SG14K0	Fusion of 2 or more Lumbar Vertebral Joints with Nonautologous Tissue Substitute, Anterior Approach, Anterior Column, Percutaneous Endoscopic Approach

Clinical Category	Code Type	Code	Description
Lumbar Fusion	ICD-10	0SG14K1	Fusion of 2 or more Lumbar Vertebral Joints with Nonautologous Tissue Substitute, Posterior Approach, Posterior Column, Percutaneous Endoscopic Approach
Lumbar Fusion	ICD-10	0SG14KJ	Fusion of 2 or more Lumbar Vertebral Joints with Nonautologous Tissue Substitute, Posterior Approach, Anterior Column, Percutaneous Endoscopic Approach
Lumbar Fusion	ICD-10	XRGB0R7	Fusion of Lumbar Vertebral Joint with Interbody Fusion Device, Customizable, New Technology Group 7, Open Approach
Lumbar Fusion	ICD-10	XRGB3R7	Fusion of Lumbar Vertebral Joint with Interbody Fusion Device, Customizable, New Technology Group 7, Percutaneous Approach
Lumbar Fusion	ICD-10	XRGB4R7	Fusion of Lumbar Vertebral Joint with Interbody Fusion Device, Customizable, New Technology Group 7, Percutaneous Endoscopic Approach
Lumbar Fusion	ICD-10	XRGC0R7	Fusion of Lumbar Vertebral Joints, 2 or more with Interbody Fusion Device, Customizable, New Technology Group 7, Open Approach
Lumbar Fusion	ICD-10	XRGC3R7	Fusion of Lumbar Vertebral Joints, 2 or more with Interbody Fusion Device, Customizable, New Technology Group 7, Percutaneous Approach
Lumbar Fusion	ICD-10	XRGC4R7	Fusion of Lumbar Vertebral Joints, 2 or more with Interbody Fusion Device, Customizable, New Technology Group 7, Percutaneous Endoscopic Approach

Table 11: Spine Surgery Geographic Adjustment Factor (GAF)

State	GAF Region	GAF
AK	ALASKA*	1.271
AL	ALABAMA	0.923
AR	ARKANSAS	0.916
AZ	ARIZONA	0.983
CA	BAKERSFIELD	1.037
CA	CHICO	1.031
CA	EL CENTRO	1.032
CA	FRESNO	1.031
CA	LOS ANGELES-LONG BEACH-ANAHEIM (LOS ANGELES/ORANGE CNTY)	1.097
CA	MADERA	1.031
CA	MERCED	1.031
CA	MODESTO	1.031
CA	NAPA	1.151
CA	OXNARD-THOUSAND OAKS-VENTURA	1.082
CA	REDDING	1.031
CA	REST OF CALIFORNIA	1.031
CA	REST OF OREGON	0.979
CA	RIVERSIDE-SAN BERNARDINO-ONTARIO	1.045
CA	SACRAMENTO-ROSEVILLE-FOLSOM	1.070
CA	SALINAS	1.075
CA	SAN FRANCISCO-OAKLAND-BERKELEY (MARIN CNTY)	1.213

State	GAF Region	GAF
CA	SAN FRANCISCO-OAKLAND-BERKELEY (SAN FRANCISCO/SAN MATEO/ALAMEDA/CONTRA COSTA CNTY)	1.212
CA	SAN JOSE-SUNNYVALE-SANTA CLARA (SAN BENITO CNTY)	1.230
CA	SAN JOSE-SUNNYVALE-SANTA CLARA (SANTA CLARA CNTY)	1.224
CA	SAN LUIS OBISPO-PASO ROBLES	1.049
CA	SANTA CRUZ-WATSONVILLE	1.085
CA	SANTA MARIA-SANTA BARBARA	1.072
CA	SANTA ROSA-PETALUMA	1.101
CA	STOCKTON	1.031
CA	VALLEJO	1.149
CA	VISALIA	1.031
CA	YUBA CITY	1.031
CO	COLORADO	1.021
CT	CONNECTICUT	1.062
DC	DC + MD/VA SUBURBS	1.123
DE	DELAWARE	0.999
FL	FORT LAUDERDALE	1.031
FL	MIAMI	1.075
FL	REST OF FLORIDA	0.992
GA	ATLANTA	1.004
GA	REST OF GEORGIA	0.952
HI	HAWAII, GUAM	1.050
IA	IOWA	0.938
ID	IDAHO	0.936
IL	CHICAGO	1.056
IL	REST OF ILLINOIS	0.976
IL	SUBURBAN CHICAGO	1.048
IN	INDIANA	0.943
KS	KANSAS	0.938
KY	KENTUCKY	0.940
LA	NEW ORLEANS	0.977
LA	REST OF LOUISIANA	0.945
MA	METROPOLITAN BOSTON	1.106
MA	REST OF MASSACHUSETTS	1.028
MD	BALTIMORE/SURR. CNTYS	1.058
MD	REST OF MARYLAND	1.012
ME	REST OF MAINE	0.946
ME	SOUTHERN MAINE	0.991
MI	DETROIT	1.025

State	GAF Region	GAF
MI	REST OF MICHIGAN	0.967
MN	MINNESOTA	0.982
MO	EAST ST. LOUIS	0.996
MO	METROPOLITAN KANSAS CITY	0.976
MO	METROPOLITAN ST. LOUIS	0.978
MO	REST OF MISSOURI	0.935
MS	MISSISSIPPI	0.923
MT	MONTANA	0.999
NC	NORTH CAROLINA	0.952
ND	NORTH DAKOTA	0.980
NE	NEBRASKA	0.933
NH	NEW HAMPSHIRE	1.011
NJ	NORTHERN NJ	1.112
NJ	REST OF NEW JERSEY	1.072
NM	NEW MEXICO	0.965
NV	NEVADA	0.994
NY	MANHATTAN	1.136
NY	NYC SUBURBS/LONG ISLAND	1.162
NY	POUGHKPSIE/N NYC SUBURBS	1.082
NY	QUEENS	1.141
NY	REST OF NEW YORK	0.966
OH	OHIO	0.961
OK	OKLAHOMA	0.942
OR	PORTLAND	1.041
PA	METROPOLITAN PHILADELPHIA	1.043
PA	REST OF PENNSYLVANIA	0.964
PR	PUERTO RICO	1.002
RI	RHODE ISLAND	1.024
SA	SAN DIEGO-CHULA VISTA-CARLSBAD	1.083
SC	SOUTH CAROLINA	0.953
SD	SOUTH DAKOTA	0.974
TN	TENNESSEE	0.933
TX	AUSTIN	1.018
TX	BEAUMONT	0.954
TX	BRAZORIA	1.001
TX	DALLAS	1.004
TX	FORT WORTH	1.000
TX	GALVESTON	1.001
TX	HANFORD-CORCORAN	1.031

State	GAF Region	GAF
TX	HOUSTON	1.026
TX	REST OF TEXAS	0.972
UT	UTAH	0.967
VA	VIRGINIA	0.984
VI	VIRGIN ISLANDS	1.002
VT	VERMONT	0.977
WA	REST OF WASHINGTON	1.014
WA	SEATTLE (KING CNTY)	1.116
WI	WISCONSIN	0.953
WV	WEST VIRGINIA	0.951
WY	WYOMING	0.989