JOURNAL OF JPOSNA®

Volume 4, Number 4, November 2022

Coding Corner

Spine

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Received: October 12, 2022; Accepted: October 13, 2022; Published: November 1, 2022

DOI: 10.55275/JPOSNA-2022-603

Introduction

Pediatric spine surgeons coding their cases benefit from a more limited number of typical procedures compared to other subspecialties. However, each surgery involves several CPT codes and their details can be confusing. Many of us adopt the coding of our training mentors but different hospital billing teams may understand operative dictations differently, new procedures may have been introduced since then, and as in a game of telephone, some misinterpretation may occur as coding wisdom is passed down. We aim to address the coding of some of the most common pediatric spine procedures to help new surgeons while also covering some details that even the most experienced will gain new insight into. As always, these are meant as examples and ultimately, your coding should reflect what you did in the operation.

Case 1: AIS Fusion

Let's start with the most common pediatric spine procedure. This patient is a 13-year-old female with adolescent idiopathic scoliosis with a 65-degree Lenke IIIC curve, who undergoes T3-L3 PSF; segmental instrumentation; posterior column osteotomies at T6/7, T7/8, T8/9, T9/10, T10/11, T11/12, and T12/L1 (7 total); with local autograft and allograft.

How do we code the levels for instrumentation and for arthrodesis?

When counting to report arthrodesis procedures, the language in CPT is not entirely consistent. In one area of CPT (22600-22616), the code definitions were revised in 2022 to replace the words "level" and "vertebral segment" with "interspace," because arthrodesis involves two vertebrae. This text change was not made to the codes in the range 22800-22812, but we have applied the same approach because they are also arthrodesis procedures. Posterior arthrodesis from T3-L3 involves 12 interspaces, leading us to suggest 22802 (*Arthrodesis, posterior, for spinal deformity, with or without cast; 7 to 12 vertebral segments*).

In contrast, posterior segmental instrumentation codes are assigned based on the number of vertebral segments spanned. Add-on code +22844 (*Posterior segmental instrumentation* (*e.g., pedicle fixation, dual rods with multiple hooks and sublaminar wires*)*; 13 or more vertebral segments*) would apply for instrumentation from T3-L3.

How should we code the osteotomies that take place in the thoracic and lumbar spine? What must be completed to count as a posterior column osteotomy?

In December 2021, the AMA published an article in *CPT Assistant* titled "Reviewing Decompression, Arthrodesis and Osteotomy Procedures." The article explained that the posterior osteotomy codes in the range 22210-22216 are defined to "include laminectomy and decompression work, with the removal of spinous process and laminae, posterior ligaments, pars interarticularis, and adjacent (superior or inferior) facets bilaterally to create a bony gap." The article also stated that "when deformity correction occurs, it may be beneficial to provide the degree of correction achieved in the operative report or medical report."

The scenario above describes seven levels of posterior osteotomies, mainly in the thoracic area, which would support code 22212 (*Osteotomy of spine, posterior or posterolateral approach, 1 vertebral segment; thoracic*) and six units of add-on code +22216 (*each additional vertebral segment*).

What if we used navigation to place screws?

Add-on code +61783 (*Stereotactic computer-assisted* (*navigational*) *procedure; spinal*) could be used if the physician appropriately documents the use of a stereotactic navigation system. This code is intended to report pre-incision planning as well as intraoperative use.

Case 2: Neuromuscular Fusion

Expanding from Case 1, this patient is a 14-year-old male with spastic quadriplegic cerebral palsy, GMFCS V, and a 95-degree scoliosis. He undergoes T2-pelvis posterior spinal fusion with sacro-alar-iliac screws; intraoperative traction; posterior column osteotomies at T12/L1, L1/L2, L2/L3, L3/L4, and L4/5; local autograft and allograft.

We know from the previous case that we will code the arthrodesis with 22804 and the instrumentation with +22844 since even without the pelvis, we are including 13 or more vertebral segments. The posterior column osteotomies were mainly done in the lumbar region, so code 22214 and 4 units of add-on code +22216 would be appropriate.

How do we code for the extension into the pelvis and the traction?

A second add-on code, +22848 (*Pelvic fixation* (*attachment of caudal end of instrumentation to pelvic bony structures*) *other than sacrum*) would be used to report the placement of iliac screws.

Under AAOS and AANS guidelines, the use of any method for intraoperative traction during surgery is inclusive of other spine procedures and is not separately reportable.

Case 3: Growing Rods

Moving to our early onset scoliosis population, this case is a 7-year-old female with syndromic scoliosis and a 75-degree curve. She undergoes T2-L4 growing rod placement, purposeful anchor-site segmental instrumentation, and fusion from T2-4 and L3-4.

How do we code growing rod placement?

Some of this may change based on national coding discussions this year, but at this time we suggest an unlisted CPT code for growing rod placement; 22899 (*Unlisted procedure; spine*) would apply. Any time unlisted procedures are reported, it is appropriate to provide the payor with a comparison code or codes that most closely reflect the work performed. Here, this might include codes for <6 level arthrodesis and instrumentation.

Case 4: Hemivertebra Resection

The most complicated of our procedures we will discuss is a 5-year-old male with a T8 hemivertebra and 65-degree scoliosis. The patient undergoes a complete T8 hemivertebra resection, posterior segmental instrumentation from T6-T10, anterior interbody cage at apex with fusion from T7-T9, posterior fusion from T6-T10, local autograft and allograft.

How do we code for the different aspects of this resection: the corpectomy, rib resection, laminectomy, etc.?

The CPT codes for this type of case will depend upon the approach method for the hemivertebra resection, aka corpectomy. There are specific codes for transthoracic, combined thoracolumbar approach, or transperitoneal/retroperitoneal approaches in the range of codes 63085 - 63091.

In CPT, corpectomy codes are defined as "partial or complete;" a single code would encompass removal of the T8 vertebral body and laminectomies and include discectomy contiguous with the corpectomy. Under CPT definitions revised in 2018, cervical corpectomy requires removal of one-half of the vertebral body, while thoracic and lumbar corpectomy requires removal of at least one-third.

Costotransversectomy is included in thoracic corpectomy and is not separately reportable. Code 21610 (*Costotransversectomy* (*separate procedure*)) is defined as a separate procedure; under CPT rules, this means that it is not reportable with other procedures at the same location.

How do we code for the various fusion levels?

When hemivertebra resection/corpectomy is performed, the number of levels of fusion is based on the pre-procedural anatomy. For example, two levels of anterior fusion (T7-T8 and T8-T9) would be reported in addition to a vertebral corpectomy, even when a single intervertebral biomechanical device is placed at the resulting defect. In the thoracic region, codes 22556 (*Arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace* (*other than for decompression*)*; thoracic*) and its add-on code +22585 (*each additional interspace*) would apply.

Placing an intervertebral biomechanical device during corpectomy is reported using add-on code +22854 (*Insertion of intervertebral biomechanical device*(*s*) (*e.g., synthetic cage, mesh*) *with integral anterior instrumentation for device anchoring* (*e.g., screws, flanges*)*, when performed, to vertebral corpectomy*(*ies*) (*vertebral body resection, partial or complete*) *defect, in conjunction with interbody arthrodesis, each contiguous* defect).

A single arthrodesis code is used for deformity correction. In this scenario 22800 (*Arthrodesis, posterior, for spinal deformity, with or without cast; up to 6 vertebral segments*) would be used for the four levels of fusion described (T6-T10).

Posterior segmental instrumentation from T6-T10 would be reported using add-on code +22842 (*Posterior segmental instrumentation* (*e.g., pedicle fixation, dual rods with multiple hooks and sublaminar wires*)*; 3 to 6 vertebral segments*).

Case 5: Vertebral Body Tether

Possibly the newest procedure and coding is for a tether. The last patient is a 10-year-old female undergoing T4-11 anterior vertebral body tethering with thoracoscopy.

How should we code tethers?

In July 2021, new category III codes, 0656T and 0657T, were introduced to describe anterior vertebral body tethering. In this scenario, code 0657T (*Vertebral body tethering, anterior; 8 or more vertebral segments*) is appropriate. The procedure includes placement of screws and anchors to secure the tether device, so a separate code for anterior instrumentation (e.g., +22845-+22847) is not reportable. Because it is not an arthrodesis procedure, we count vertebral segments in the same manner as anterior and posterior instrumentation based on the vertebral segments spanned.

Conclusion

Spine coding has intricacies that may not be known to all. Particular attention needs to be paid to the different inclusion of levels between fusion and instrumentation

codes. For osteotomies including 3-level osteotomies, coding depends on approach, and each includes a number of removed elements that are not coded for separately. When coding your cases, working with the billing experts at your hospital may be helpful, but as surgeons, we understand best what we accomplished in the case. Therefore, it is most important that we understand the coding rules best to advocate for accuracy.

Disclaimer

The authors have no conflicts of interest to report.