Five principles will help you capture appropriate charges for spine surgeries.

“It seems like coding spine cases is as complicated as doing the surgery,” said a spine surgeon at his first coding training session with me.

Spine procedure coding can make even the most confident coder squirm. But spine procedure coding doesn’t have to be difficult. In fact, it’s quite formulaic. Follow these five principles and spine procedure coding will go from scary to simple.

1. Choose standalone codes to describe decompression/discectomy.

Decompression is the general term to describe removal of the spinal disk, bone, or tissue causing pressure and pain. Often, this is the only procedure performed. Examples include: laminectomy to decompress spinal canal and/or nerve roots (e.g., 63001-63017, 63045-63048), discectomy to decompress spinal canal and/or nerve roots (e.g., 63020-63035, 63040-63044, 63055-63057), corpectomy (e.g., 63081-63091), fracture repair (e.g., 22325-22328), etc.

CPT® designates the decompression codes as being per “vertebral segment” or per “interspace.” Decompression occurs at the interspace for discectomy codes (e.g., right L4-L5 interspace). Discectomy is a single, standalone code, such as 63030 Laminitomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of herniated intervertebral disc; 1 interspace, lumbar.

But decompression of the spinal canal can be coded per vertebral segment (63001-63017), or per level of foraminotomy (e.g., decompression of the L4 exiting nerve root via partial laminectomy at L4 and partial laminectomy at L5, with foraminotomy at L4-L5, is reported using one code: 63047 Laminitomy, facetectomy and foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s], [eg, spinal or lateral recess stenosis]), single vertebral segment; lumbar).

Discern whether the approach was posterior or anterior to choose the correct code. Table A illustrates commonly used, standalone decompression codes for spine surgery.

Takeaways:

- Spine coding is easier than it seems, if you approach it as formulaic.
- Five principles can help make spine surgery coding simpler.
- Be wary of exceptions.
Discern whether the approach was posterior or anterior to choose the correct code.

### Table A: Standalone decompression codes for spine surgery

<table>
<thead>
<tr>
<th>Approach/Procedure</th>
<th>Cervical</th>
<th>Thoracic</th>
<th>Lumbar</th>
<th>Sacral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posterior Laminectomy</td>
<td>63001, 63015, 63045, +63048</td>
<td>63003, 63016, 63046, +63048</td>
<td>63005, 63017, 63047, +63048</td>
<td>63011</td>
</tr>
<tr>
<td>Posterior Discectomy</td>
<td>63020, +63035, 63040, +63043</td>
<td>None</td>
<td>63030, +63035, 63042, +63044</td>
<td>None</td>
</tr>
<tr>
<td>Posterior Fracture Repair</td>
<td>22326, +22328</td>
<td>22327, +22328</td>
<td>22325, +22328</td>
<td>None</td>
</tr>
<tr>
<td>Corpectomy</td>
<td>63081, +63082</td>
<td>63085, +63086, 63087, +63088, 63090, +63091</td>
<td>63087, +63088, 63090, +63091</td>
<td>None</td>
</tr>
</tbody>
</table>

From the operative note, identify which decompression/discectomy activity the surgeon performed. Then, choose an appropriate standalone code and any associated add-on codes (noted by the “+” sign in CPT®) for the decompression. Remember, corpectomy (removal of part or all of a vertebral body) codes include the discectomy at the level above and below the corpectomy. Documentation also should reflect removal of at least 50 percent of the cervical vertebral body, or 33 percent of the thoracic and lumbar vertebral bodies, to use the corpectomy codes.

**Example 1**

A 68-year-old male who has lumbar spinal stenosis at L5-S1 undergoes partial laminectomies at L5 and S1, with medial facetectomy and foraminotomy at L5-S1. This is reported with 63047.

**Example 2**

A 33-year-old female herniates an intervertebral disc on the right at L4-L5 while lifting her 4-year-old child. She undergoes minimally invasive hemi-laminotomies and foraminotomy with discectomy at L4-L5 on the right side. This is reported with 63030.

### 2. Was a fusion (arthrodesis) performed?

If the answer is “no,” go to principle No. 5.

If the answer is “yes,” choose the standalone CPT® code for the fusion (synonymous with “arthrodesis,” or the joining of two or more vertebrae).

Fusion is the merging of adjacent parts; therefore, coding a single fusion segment (22612 Arthrodesis, posterior or posterolateral technique, single level; lumbar (with lateral transverse technique, when performed)) involves two adjacent vertebral segments (L4 and L5).

**Be careful:** There is a single combined decompression/fusion code: 22551 Arthrodesis, anterior interbody, including disc space preparation, discectomy, osteophytectomy and...
As with other graft codes in CPT®, the spinal bone graft codes are reported for harvesting the bone graft.

decompression of spinal cord and/or nerve roots; cervical below C2. Do not use a separate standalone anterior cervical arthrodesis code (22554 Arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for decompression); cervical below C2) with the separate anterior cervical discectomy/decompression code (63075 Discectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophytectomy; cervical, single interspace) at the same spinal level. Use the combined decompression/arthrodesis code, 22551, instead.

Discern whether the approach was posterior or anterior to choose the correct arthrodesis code(s). The standalone code covers the first segment of fusion, and the associated add-on codes are used for additional levels of fusion. For example, a posterior fusion at L4-S1 is coded as 22612 (L4-L5) and +22614 Arthrodesis, posterior or posterolateral technique, single level; each additional vertebral segment (List separately in addition to code for primary procedure) (L5-S1), not 22612 (L4), +22614 (L5), and +22614 (S1).

See Table B for commonly used arthrodesis codes in spine surgery.

Table B: Commonly-used arthrodesis/fusion codes in spine surgery

<table>
<thead>
<tr>
<th>Approach</th>
<th>Cervical</th>
<th>Thoracic</th>
<th>Lumbar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posterior</td>
<td>22600, +22614</td>
<td>22610, +22614</td>
<td>22612, +22614, 22630, +22632, 22633, +22634</td>
</tr>
<tr>
<td>Anterior</td>
<td>22554, +22585</td>
<td>22556, +22585</td>
<td>22558, +22585</td>
</tr>
</tbody>
</table>

3. Choose the appropriate add-on bone graft code with fusion.

Because a fusion was performed, you must include a bone graft code. As with other graft codes in CPT®, the spinal bone graft codes are reported for harvesting the bone graft. The work of placing the bone graft is included in the arthrodesis/fusion codes.

All spinal bone graft codes are add-on codes. Choosing one is easy: There are only five, as shown in Table C. CPT® guidelines allow for reporting each bone graft code once per operative session.

Table C: Commonly-used add-on bone graft codes in spine surgery

<table>
<thead>
<tr>
<th>Type</th>
<th>Morselized</th>
<th>Structural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allograft (donor bone)</td>
<td>+20930</td>
<td>+20931</td>
</tr>
<tr>
<td>Autograft (patient’s bone)</td>
<td>+20936, +20937</td>
<td>+20938</td>
</tr>
</tbody>
</table>

From the operative note, determine whether the bone graft was an allograft or an autograft, and whether it was a morselized (bits or pieces) or structural (wedge or chunk) bone. It helps to know what the bone type documented in the operative note looks like.

Examples of +20930 Allograft, morselized, or placement of osteopromotive material, for spine surgery only (List separately in addition to code for primary procedure) include demineralized bone matrix (DBM or DBX) and bone morphogenic protein (BMP). Ex-
Examples of +20931 Allograft, structural, for spine surgery only (List separately in addition to code for primary procedure) include a fibular strut graft and a machine-threaded bone dowel.

Examples of +20936 Autograft for spine surgery only (includes harvesting the graft); local (eg, ribs, spinous process, or laminar fragments) obtained from same incision (List separately in addition to code for primary procedure) include crushed spinous process and/or lamina bone or rib harvested through the same exposure. An example of +20937 Autograft for spine surgery only (includes harvesting the graft); morselized (through separate skin or fascial incision) (List separately in addition to code for primary procedure) is cancellous iliac crest bone; +20938 Autograft for spine surgery only (includes harvesting the graft); structural, bicortical or tricortical (through separate skin or fascial incision) (List separately in addition to code for primary procedure) is bicortical or tricortical iliac crest bone.

**Important:** Because bone graft codes are add-on codes, per CPT® guidelines, they are never reported with modifier 62 Two surgeons.

### 4. Was instrumentation used in the fusion?

If the answer is “no,” go to principle No. 5.

If the answer is “yes,” choose the appropriate add-on code(s) for the instrumentation, also known as hardware (see Table D on the next page). Review the operative note to determine where the instrument was used, and whether it was non-segmental, segmental, or intervertebral.

Posterior instrumentation is categorized as non-segmental or segmental. Non-segmental instrumentation (+22840 Posterior non-segmental instrumentation (eg, Harrington rod technique, pedicle fixation across 1 interspace, atlantoaxial transarticular screw fixation, sublaminar wiring at C1, facet screw fixation) (List separately in addition to code for primary procedure)) is defined by CPT® as “fixation at each end of the construct and may span several vertebral segments without attachment to the intervening segments.” In plain language, this means the instrumentation has only two points of attachment on the spine: at the top and at the bottom of the construct. For example, this may be by pedicle screws and rods at L4-L5 only, or a long rod attached at T2 and extended to the second point of attachment at L5.

CPT® defines segmental instrumentation (+22842-+22844) as “fixation at each end of the construct and at least one additional interposed bony attachment,” meaning at least three points of attachment on the spine. Examples include pedicle screws and rods at L4, L5, and S1.

Choose anterior instrumentation codes (+22845-+22847) based on the number of vertebral segments the hardware (typically, a plate) spans. For example, report a plate attached to C5, C6, and C7 (three vertebral segments) that spans two interspaces (C5-C6, C6-C7) with +22845 Anterior instrumentation; 2 to 3 vertebral segments (List separately in addition to code for primary procedure).

Intervertebral instrumentation (+22851 Application of intervertebral biomechanical...
Report +22851 per interspace, or per vertebral defect, not by how many devices are placed in the interspace.

**Superior/inferior hook only (22840)**
Fixation by wiring (22841)
Hooks, three to six segments (22842)
seven to 12 segments (22843)
13 or more segments (22844)

**Example of rod hook; may be attached at top and bottom only, or also at segments**

**Rule of Thumb when Crossing Spinal Junctions**

Report one standalone code and appropriate add-on codes when the procedure crosses spinal junctions (e.g., T11-L2). Don’t report two standalone fusion codes. For example, a posterior fusion performed from T11 to L2 is reported with 22612 and +22614 x 2 units, not 22612, 22610 Arthrodesis, posterior or posterolateral technique, single level; thoracic (with lateral transverse technique, when performed), and +22614. Consider the T12-L1 level to be lumbar for CPT® coding purposes.

**Table D: Commonly-used, add-on instrumentation codes in spine surgery**

<table>
<thead>
<tr>
<th>Location</th>
<th>Non-segmental</th>
<th>Segmental</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posterior</td>
<td>+22840</td>
<td>+22842–+22844</td>
</tr>
<tr>
<td>Anterior</td>
<td></td>
<td>+22845–+22847</td>
</tr>
<tr>
<td>Intervertebral</td>
<td></td>
<td>+22851</td>
</tr>
</tbody>
</table>

**Warning:** As with bone graft codes, instrumentation codes are add-on codes, and are never reported with modifier 62. Some payers (including Medicare) will incorrectly reimburse the instrumentation and some bone graft codes when billed with modifier 62; however, CPT® guidelines prohibit reporting the instrumentation and bone graft codes with modifier 62.

**Example 1**

A 52-year-old female undergoes a C5-C7 anterior cervical discectomy, decompression, and fusion, with two fibular strut grafts (C5-C6 and C6-C7) and placement of anterior plate.

Proper coding is:

- Combined decompression/fusion: 22551 for the first level and +22552 Arthrodesis, anterior interbody, including disc space preparation, discectomy, osteophytectomy and decompression of spinal cord and/or nerve roots; each additional interspace (List separately in addition to code for separate procedure) for the additional level
- Bone graft: +20931
- Instrumentation: +22845 Anterior instrumentation; 2 to 3 vertebral segments (List separately in addition to code for primary procedure)

**Example 2**

A 73-year-old female undergoes the following procedure:

1. L3-L4, L4-L5 laminectomies, medial facetectomies, and foraminotomies
2. L3-L4, L4-L5 posterolateral fusion with pedicle screws and rods, as well as bone graft harvested from the spinous processes.
Proper coding is:

- Decompression: 63047, +63048 Laminctomy, facetectomy and foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s], [eg, spinal or lateral recess stenosis]), single vertebral segment; each additional segment, cervical, thoracic, or lumbar (List separately in addition to code for primary procedure)

- Arthrodesis: 22612, +22614

- Bone graft: +20936

- Instrumentation: +22842 Posterior segmental instrumentation (eg, pedicle fixation, dual rods with multiple hooks and sublaminar wires); 3 to 6 vertebral segments (List separately in addition to code for primary procedure)

5. Were other procedures performed in addition to decompression?

If the answer is “no,” your coding is complete.

If the answer is “yes,” code for the other procedures. Examples include:

- Use of an operating microscope for microdissection (+69990 Microsurgical techniques, requiring use of operating microscope (List separately in addition to code for primary procedure))

- Bone marrow harvest in a separate surgical exposure such as from the iliac crest, for the autograft (38220 Bone marrow; aspiration only)

- Use of a stereotactic navigation system for pedicle screw placement (+61783 Stereotactic computer-assisted (navigational) procedure; spinal (List separately in addition to code for primary procedure))

You’ve done it! You’ve coded spine procedures. Use these five principles and their exceptions and rules of thumb to capture charges for spine cases correctly and you’ll reduce your claims denials considerably.

Kim Pollock, RN, MBA, CPC, is a consultant and speaker with KarenZupko & Associates, Inc. (www.karenzupko.com). She teaches spine and neurosurgical coding for the American Association of Neurological Surgeons and has spoken on spine coding topics at several AAPC annual meetings. Pollock has taught for the North American Spine Society and the American Academy of Orthopaedic Surgeons. She provides coding audits, revenue cycle analysis, and practice management consulting for surgical practices nationwide. She is a member of the Dallas, Texas, local chapter.