Back to the Basics on ICD-10-PCS Spinal Fusion Coding - Retired

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The implementation of ICD-10-PCS has enhanced the skills of coding professionals as it contains many unique features that provide an opportunity to accurately reflect the complexity of the procedures being performed. The assignment of ICD-9-CM procedure codes for spinal fusions often challenged coding professionals, and this has not changed with the transition to ICD-10-PCS. As with the coding of other complex surgical procedures, coding professionals struggle with identifying which portion of the spinal fusion procedure to code or not to code.

This article will discuss the information required to accurately assign the characters of a spinal fusion procedure code. Additionally, this article will identify those procedures performed during a spinal fusion which are considered integral to the fusion and are not assigned additional codes—versus those not considered to be integral and are assigned separate codes.

Dissection of a Spinal Fusion Code

Body Part: The body part character reflects the level of the vertebrae (cervical, thoracic, lumbar and/or sacral) and the number of vertebral joints fused. The intervertebral joint is the space that is located between any two adjacent vertebrae. One factor in determining the number of fusion codes to assign is how many levels were fused. For example, a L2-L5 anterior fusion requires the assignment of only one fusion code with the body part being 1. However, a L2-S1 anterior fusion requires two fusion codes with one code being assigned the body part of 1 and the other code being assigned the body part of 3 (see Figure 2 below).

Devices: Spinal fusions can be performed using several different techniques and the device character identifies the device/material used to perform the fusion. These devices/materials include:

- Interbody fusion devices (A)—examples include: interbody fusion cages, BAK cages, PEEK cages, bone dowels
- Autologous Tissue Substitute (7)—bone graft obtained from the patient during the procedure. Bone grafts may be harvested locally using the same incision, or from another part of the body requiring a separate incision. Harvesting of the bone requires a separate procedure code when it is performed through a separate incision.
- Nonautologous Tissue Substitute (K)—bone is harvested by a tissue bank from a cadaver
- Synthetic Substitute (J)—examples include demineralized bone matrix, synthetic bone graft extenders, bone morphogenetic proteins (BMP)

Combinations of devices and materials are often used on a vertebral joint during a spinal fusion. When combinations of devices are used on the same vertebral joint, the device value coded for the procedure is as follows:

- If an interbody fusion device is used (alone or containing other material like bone graft), the procedure is coded with the device value Interbody Fusion Device (A)
- If bone graft is the only device used, the procedure is coded with device value Nonautologous Tissue Substitute (K) or Autologous Tissue Substitute (7)
- If a mixture of autologous and nonautologous bone graft (with or without biological or synthetic extenders or binders) is used, the procedure is coded with device value Autologous Tissue Substitute (7)

Qualifier: The qualifier character identifies the column of the spine being fused (anterior or posterior) and if the surgical approach is from the front or back of the body (see Figure 1 below).

Figure 1		
Qualifier Characters		
Anterior Approach, Anterior Column (0)	**Posterior Approach, Posterior Column (1)**	**Posterior Approach, Anterior Column (J)**
Supine (face up) positioning	Prone (back up) positioning	Prone (back up) positioning
Incision made on the front or side of the body	Incision made on the back side of the body	Incision made on the back side of the body
Vertebral body is fused	Structures on the posterior spine are fused	Vertebral body is fused
Qualifier Examples for Anterior Column Fusions		
Procedure	**Approach**	**Qualifier**
Anterior lumbar interbody fusion (ALIF)	Incision made in front of the spine through a minilaparotomy or laparoscopy	0 Anterior Approach, Anterior Column
Posterior lumbar interbody fusion (PLIF)	Incision made through a midline incision in the back	J Posterior Approach, Anterior Column
Extreme lateral interbody fusion (XLIF)	Incision made in the patient's side	0 Anterior Approach, Anterior Column
Direct lateral interbody fusion (DLIF)	Incision made in the patient's side	0 Anterior Approach, Anterior Column
Transforaminal lumbar interbody fusion (TLIF)	Incision made through a midline incision in the back	J Posterior Approach, Anterior Column

Figure 2: Spinal Fusion Body Part Characters	
(R) Upper Joints	**(S) Lower Joints**
0 Occipital-cervical Joint	0 Lumbar Vertebral Joint
1 Cervical Vertebral Joint	1 Lumbar Vertebral Joints, 2 or more
2 Cervical Vertebral Joints, 2 or more	3 Lumbosacral Joint
4 Cervicothoracic Vertebral Joint	
6 Thoracic Vertebral Joint	
7 Thoracic Vertebral Joints, 2 to 7	
8 Thoracic Vertebral Joints, 8 or more	
A Thoracolumbar Vertebral Joint	

Integral versus Non-Integral

Coding professionals must be able to distinguish between what procedures are integral to a spinal fusion and are not assigned additional codes, versus those not considered to be integral and are assigned separate codes. The following are examples of how to make that distinction.

Procedure Example #1

Procedures performed:

- Exploration of previous fusion L3-S1
- Removal of segmental instrumentation L3-S1
- L2-L3 complete bilateral laminectomy for decompression
- Right L2-L3 transforaminal lumbar interbody fusion with BMP, locally harvested morcellized autograft, morcellized allograft and Medtronic Capstone PEEK cage
- L2-S1 segmental instrumentation with Medtronic Solera 5-5 system
- L2-L3 posterolateral/posterior arthrodesis with locally harvested morcellized autograft and BMP

Procedure approach:

- Open posterior approach

Six procedures were performed, but with spinal fusions some of the listed procedures are integral to the fusion itself and in this case only four procedure codes are required. Codes would not be assigned for the exploration of previous fusion, laminectomy, or the L2-S1 segmental instrumentation. The laminectomy and segmental instrumentation are integral to the spinal fusion. The procedures to be coded are the anterior spinal fusion (right L2-L3 transforaminal lumbar interbody fusion), posterior spinal fusion (L2-L3 posterolateral/posterior arthrodesis), and removal of the previously placed segmental instrumentation L3-S1. The code for the anterior fusion is 0SG00AJ with the device value (sixth character) being A for interbody fusion device.

The BMP, locally harvested morcellized autograft, and morcellized allograft are not coded separately. The code for the posterior fusion is 0SG0071, with the device value being 7 for autologous substitute (locally harvested morcellized autograft). The removal of the segmental instrumentation would also be coded with two codes, required since two levels of the spine were involved. The code for removal of the instrumentation from the lumbar vertebral joint (L3-L5) is 0SP004Z and the code for removal of the instrumentation from the lumbosacral vertebral joint (L5-S1) is 0SP304Z.

Procedure Example #2

Procedures performed:

- L2-L5 posterior lumbar interbody fusion using autologous bone graft
- L2-L5 discectomy
- L2-L5 pedicle screw instrumentation
- Harvesting bone graft from right iliac crest through separate incision

Procedure approach:

- Open posterior approach

As with Example #1 the pedicle screw instrumentation is included in the L3-L5 spinal fusion and not coded separately. The procedures to be coded are the posterior lumbar interbody fusion, discectomy, and harvesting of bone graft. The code for the posterior lumbar fusion is 0SG107J, with the device value being 7 for autologous substitute. The code for the discectomy is 0SB20ZZ, with the root operation being Excision.

If the operative report documents that a discectomy is performed, the correct root operation is Excision. However, if the operative report documents a “total discectomy,” the root operation is Resection.

A code is assigned for the harvesting of the bone graft from the right iliac crest as the autograft was obtained from a different body part. The code for this procedure is 0QB20ZZ, with the body part character (fourth character) being 2 for right pelvic bone. The iliac crest does not have its own distinct body part value in ICD-10-PCS, with the ICD-10-PCS Body Part Key indicating that the pelvic bone is the closest proximal branch.

Procedure Example #3

Procedures performed:

- Lumbar decompression L4-L5 and L5-S1 bilateral foraminotomies
- L3 decompression laminectomy
- L4-L5 and L5-S1 discectomy
- L4-L5 and L5-S1 transforaminal lumbar interbody fusion with autogenous iliac crest graft and BAK cage
- L4-L5 and L5-S1 posterolateral fusion with autogenous iliac crest graft
- Right posterior iliac crest bone graft harvest through separate incision
- L4-S1 segmental instrumentation

Procedure approach:

- Open posterior approach

As with Examples #1 and #2, the segmental instrumentation is included in the spinal fusion and is not coded separately. The lumbar decompression L4-L5 and L5-S1 bilateral foraminotomies and L3 decompression laminectomy are also considered to be integral to the spinal fusion and not coded separately.

The procedures to be coded are the anterior spinal fusion (transforaminal lumbar interbody fusion), posterior spinal fusion, discectomy, and harvesting of bone graft. Two codes are assigned for the anterior spinal fusion, as two levels of the spine were fused (L4-L5 and L5-S1). The codes for the anterior spinal fusion are 0SG00AJ (L4-L5) and 0SG30AJ (L5-S1). Two codes are also assigned for the posterior spinal fusion, 0SG0071 (L4-L5) and 0SG3071 (L5-S1). Codes 0SB20ZZ and 0SB40ZZ are also assigned for the discectomy performed at two different levels of the spine. Lastly, code 0QB20ZZ is assigned for the harvesting of the right iliac crest bone graft.

References

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