Sternal wound procedures require coding accuracy

By Raymond Janevicius, MD

Coding sternal wound procedures and reconstructions can be challenging. These are often extensive operations, and proper delineation of procedures performed is necessary to ensure correct coding.

Debridements

Sternal wound dehiscences generally require some element of soft tissue and/or bone debridement prior to reconstruction. Soft tissue debridement alone is reported with codes 15000 and 15001, depending upon surface area debrided.

Varying amounts of bone debridement may be performed depending upon the extent of bone involvement and osteomyelitis. If a small portion of the sternum is debrided, use code 21620, "ostectomy of sternum, partial." This code describes superficial debridement of the sternum, when a small portion is removed with a rongeur, for example. This code is used for minimal debridements of the sternum.

21627, "sternal debridement," describes more extensive debridements. When a radical debridement of the sternum is performed, use code 21630. This code is used for the more extensive procedures usually required for sternal osteomyelitis. Subtotal or total sternectomy is reported with code 21630.

Rib resections

The sternal debridement codes do not include debridements of the ribs or costal cartilages. If the necrotic or infectious process requires the resection of ribs, this is separately reported. 21600 describes partial rib resection and is reported for each rib debrided. Thus, if a subtotal sternectomy is performed and the medial third, fourth and fifth ribs are debrided bilaterally (six ribs), the procedure is reported:

21630 Radical debridement of sternum
21600-51 Rib resection, partial
21600-59 Rib resection, partial
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Use of the units box on the CMS 1500 form can be helpful:
21630 Radical debridement of sternum

21600-59-51 Rib resection, partial, six ribs (6 units)

If sternal wires must be removed in the course of the procedure, these are reported separately. No specific code exists for sternal wire removal, but 20680 is appropriate. One code is reported for each wire removed.

**Reconstructions are reported separately**

After the wounds are debrided, various reconstructive modalities are available. These procedures are reported separately. Pectoralis major muscle flaps and rectus abdominis flaps are often used to reconstruct the post-resection defects. 15734 is used for each muscle flap used. Consider a sternal defect requiring bilateral pectoralis major muscle flaps and a right rectus abdominis muscle flap:

15734 Right pectoralis major muscle flap

15734-51 Left pectoralis major muscle flap

15734-51 Right rectus abdominis muscle flap

Some payer require the "-59" modifier instead of the "-51" modifier:

15734 Right pectoralis major muscle flap

15734-59 Left pectoralis major muscle flap

15734-59 Right rectus abdominis muscle flap

Some Medicare fiscal intermediaries have been known to deny the second two procedures and only reimburse for one muscle flap, even though three muscle flaps are performed. This is counter to accepted CPT guidelines, as well as CMS standards. In cases where this occurs, it may be necessary to use both the "-59" and "-51" modifiers:

15734 Right pectoralis major muscle flap

15734-59-51 Left pectoralis major muscle flap

15734-59-51 Right rectus abdominis muscle flap

In some cases, unfortunately, appeal letters may be necessary.

Even though "bilateral" pectoralis major muscle flaps are performed, **do not** append the "-50," "bilateral procedure" modifier, as many payers, including Medicare, may deny the second procedure.

**A new omental flap code**
Chest wall reconstruction sometimes requires the use of an omental flap. In 2003, through the efforts of the ASPS CPT Committee, a new code was developed to describe extra-abdominal use of the omentum (see May 2003 CPT Corner). If the omentum is transferred to the chest wall, use code 44904. This code is global, and includes laparotomy, harvest of the omentum, transfer and inset of the flap, and closure of the laparotomy.

Often, the omental flap is harvested by a general surgeon, who then closes the abdomen while the plastic surgeon insets the flap. Since one code describes this entire procedure, the surgeons are considered "co-surgeons" and must "share" this one code. Both surgeons report the omental flap code and each appends the "-62" modifier:

44904-62 Omental flap – harvest and abdominal closure (General surgeon)

44904-62 Omental flap – transfer and inset (Plastic surgeon)

If the sternal wound cannot be closed primarily, a skin flap or skin graft must be used. Skin flaps and skin grafts are separately reported.

**Use the "-58" modifier**

Often, these are staged procedures, where a debridement is performed, then the reconstruction performed a few days later. Serial debridements may also be necessary. Since these procedures have 90-day global periods, subsequent procedures are performed in the postoperative global period and will be denied unless a modifier is used. Since these are staged procedures, append the "-58" modifier to subsequent procedures within the global postoperative period (see Code of the Month). The initial procedures should not be reported with the "-58" modifier.

**Code of the Month**

One week post-coronary artery bypass, a patient suffers a sternal dehiscence with infection. You perform a partial sternal debridement and remove five sternal wires. Three days later, a further debridement is performed at which time a subtotal sternectomy with resection of three costochondral junctions is necessary. The wound is reconstructed with bilateral pectoralis major muscle flaps.

Three weeks later, the wound dehisces secondary to mediastinitis. The bone is viable and only requires a small amount of debridement. An omental flap is harvested by the general surgeon and you inset the flap into the mediastinum, then readvance bilateral pectoralis major muscle flaps.

**Procedure 1**

21627 Sternal debridement

20680-51 Removal of five wires (5 units)

**Procedure 2**

15734-58 Right pectoralis major muscle flap
15734-59-58 Left pectoralis major muscle flap
21630-51-58 Subtotal sternectomy
21600-51-58 Rib resection
21600-59-58 Rib resection
21600-59-58 Rib resection

**Procedure 3**

49904-62-78 Omental flap

15734-51-78 Right pectoralis major muscle flap

15734-59-78 Left pectoralis major muscle flap

21620-51-78 Partial sternal resection

- Three separate dates of service are reported. Procedures 2 and 3 are within the 90-day global surgery period of Procedure 1. Modifiers must be used so that these procedure are not disallowed as part of "global postoperative care."
- Since Procedure 2 was planned or "staged," append "-58" to all codes. Procedure 3 was secondary to unplanned complications, or a "return or the operating room for a related procedure during the postoperative period." Modifier "-78" is appropriate here.
- Although you perform the first procedure one week after the coronary artery bypass, you are not in your **own** global postoperative period. No postoperative modifier is necessary, even though the procedure is performed within 90 days of the bypass procedure.
- Three degrees of sternal debridement have been performed, from a partial ostectomy in Procedure 3 (21620) to a subtotal sternectomy in Procedure 2 (21630). Documentation of the extent of sternectomy in the operative report is critical.
- Rib resections and sternal wire removals are separate procedures not global to sternectomy procedures, and they should be reported separately.
- You and the general surgeon are both involved in the omental flap procedure, and you "share" the omental flap code, 49904. This "co-surgeon" situation is reported with modifier "-62."

– *Dr. Janevicius is the society's representative to the AMA CPT Advisory Committee.*

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