Coding for Vascular Access Devices: New CPT Subsection Sheds Light on Procedures, Devices

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The coding of vascular access procedures has been problematic for some time. New codes were added to CPT as new techniques developed, but the organization of the subsection was vague and the coding of some types of devices unclear. With CPT 2004, an entire new subsection, Central Venous Access Procedures, has been added, with 27 codes to report the insertion, repair, partial or complete replacement, and removal of the devices.

Types of VADs

Vascular access devices (VADs) may be categorized in a number of different ways. They may be divided into those with subcutaneous ports and those without (central venous catheters). Catheters have one end positioned outside the body, whereas ports are surgically placed under the skin and no portion of the catheter is exposed. With both catheters and ports, the opposite end of the tubing is positioned within a large vein near the heart. CPT distinguishes between these two types of devices because of the differing amounts of physician work and skill involved in their placement.

Central venous catheters can be classified as those that are tunneled under the skin and those that are not. Again, CPT distinguishes between these because of the differing amounts of work involved. Central venous catheters can also be divided into subgroups based on expected duration: short, intermediate, and long term.

Catheters may also be distinguished on the basis of the number of lumens. The term "lumen" refers to the number of tubes inside the catheter. A single lumen catheter is commonly used if a single IV fluid is to be infused, a double lumen if more than one fluid might be infused, and a triple lumen for more extensive infusions or complex monitoring.

Nontunneled Central Venous Catheters

For a catheter to be considered a central venous catheter, its tip must terminate in the subclavian, brachiocephalic (innominate), or iliac vein, in the superior or inferior vena cava or in the right atrium. Nontunneled central venous catheters usually have an anticipated lifespan of up to 30 days. They typically are inserted via the right jugular vein, and the tip lies within one of the central veins listed above. They may be used for temporary dialysis while permanent fistulas mature, for acute dialysis, short-term medication administration, or fluid resuscitation.

Advantages of non-tunneled catheters are ease of insertion at bedside, low cost, and easy removal. Disadvantages include that they may dislodge with patient motion, have limited uses, are likely to develop thrombi, and require regular heparin flushing when not in use. They also are at higher risk of infection and air embolization compared to tunneled catheters.

The two new codes for insertion of nontunneled catheters no longer differentiate between those placed percutaneously and via cut-down. The codes are:

- **36555** Insertion of nontunneled centrally inserted central venous catheter; under five years of age
- **36556** age five years or older

Note the change from the age of two to five years in different placements.

Tunneled Central Venous Catheters

Tunneled central venous catheters are used for temporary access of longer than three weeks' duration. The purpose of tunneling the catheter under the skin is to help prevent infection. A small cuff is located around the catheter about an inch inside the entrance to the skin. Skin grows into this cuff and keeps the catheter in place, also acting as a barrier to infection. Examples of tunneled catheters include Groshong, Broviac, and Hickman catheters for chemotherapy and hyperalimentation, and PermCath and Tesio devices for hemodialysis. These are the two primary uses for this type of catheter.

Tunneled catheters have many benefits. Multiple lumens allow several simultaneous infusions, and most of these devices require only a weekly flush of normal saline when not in use, decreasing nursing time and medication costs.

The two new codes for insertion of tunneled catheters also do not differentiate between percutaneous placement and that via cut-down. The codes are:

- **36557** Insertion of tunneled centrally inserted central venous catheters, without subcutaneous port or pump; under five years of age
- **36558** age five years or older

Code **36565** is used to report insertion of a type of device that requires the use of two catheters. The descriptor for code 36565 is "Insertion of tunneled centrally inserted central venous access device, requiring two catheters via two separate venous access sites." The most common catheter of this type is the Tesio catheter. Unlike the PermCath hemodialysis catheter, which contains two lumens within one catheter (one to carry the blood from the body to the dialyzer and the other to return it after cleansing), the Tesio uses two separate catheters to perform these functions.

Peripherally Inserted Central Venous Catheters

Peripherally inserted central venous catheters (PICCs) are placed via the antecubital, brachial, or cephalic vein in the arm and threaded up into the central venous position. Usually placed at the bedside, a PICC can be placed in the home, an outpatient setting, or an inpatient setting, and it can be placed by specially trained nurses as well as surgeons. Arm placement decreases the risk of air embolism and is less traumatic than other central line placements. PICC devices have low infection rates and fewer insertion-related complications, and they can be left in place for extended periods. Disadvantages of the PICC lines are that some have smaller lumen sizes that occlude easily, they may break or tear more often than heavier lines, they cannot tolerate high- rate infusions, and they may migrate.

There are two new codes for insertion of PICCs without a port:

- **36568** Insertion of peripherally inserted central venous catheter, without subcutaneous port or pump; under five years of age
- **36569** age five years and older

Subcutaneous Ports

VADs include a tunneled catheter and a permanent method of accessing the catheter, the subcutaneous port. Subcutaneous ports are used for administration of antibiotics, chemotherapy, hydration, total parenteral nutrition, or long-term blood sampling.

Advantages of VADs include under-the-skin placement resulting in less body image alteration and lower infection risk. They require only monthly heparin flushing when not in use. Disadvantages of a VAD involve the requirement that a special type of needle be used for access to preserve catheter integrity. Because the special non-coring needle must pierce the skin, access can be painful.

Occlusions are the most common complication associated with VADs, with as many as 25 percent becoming occluded. Occlusions are classified as:

- **Thrombotic**: A blood clot develops over time as fibrin builds up at the tip of the catheter. Most VAD occlusions are of this type.
- **Mechanical**: This occurs when the tube is pinched between bones, when the catheter tip moves into a smaller vein, or when it becomes blocked against the vessel wall.

- **Precipitate**: Precipitate occlusions occur when incompatible drugs or nutritionals interact and the resulting sediment (precipitate) remains in the VAD, or from a waxy buildup of lipid nutritionals on the catheter wall.

The coding for insertion of VADs depends on how the central catheter was inserted, either tunneled centrally inserted or peripherally inserted. The codes are:

- **36560** Insertion of tunneled centrally inserted central venous access device, with subcutaneous port; under five years of age
- **36561** age five years or older
- **36570** Insertion of peripherally inserted central venous access device, with subcutaneous port; under five years of age
- **36571** age five years or older
- **36566** Insertion of tunneled centrally inserted central venous access device, requiring two catheters via two separate venous access sites; with subcutaneous port(s)

Subcutaneous Pumps

In addition to subcutaneous ports, central VADs may involve subcutaneous pumps. Two important uses of subcutaneous pumps are continuous insulin infusion in the management of both type I and II diabetes mellitus and terbutaline infusion for treatment of preterm labor.

There is only one code for central venous lines with subcutaneous pumps:

- **36563** Insertion of tunneled centrally inserted central venous access device with subcutaneous pump

Additional CPT 2004 Code Categories

All of the above codes address insertion of VADs. CPT 2004 has created five categories of codes:

- Insertion: the most extensive section, with 13 codes
- Repair: two codes
- Partial replacement: one code
- Complete replacement: six codes
- Removal: two codes

CPT 2004 also includes two codes to describe mechanical removal of obstructive material and one to describe repositioning of a previously placed catheter.

Repair of Central VADs

Physicians or specially trained nurses can perform vascular access repair. Commercial repair kits are available for most devices. There are two codes, one for repair of an access device without subcutaneous port or pump (**36575**) and one for a device with a port or pump (**36576**). Codes do not distinguish between catheters that were inserted centrally or peripherally.

Partial Replacement of Central VAD (Catheter Only)

There is a single code to report the replacement of the catheter portion of a central VAD, **36578**. Indications would include a broken or hopelessly occluded catheter.

Complete Replacement of Central VAD through Same Venous Access Site

There are six codes to report the complete replacement of central VADs through the same venous access site:

- **36580** Complete replacement of a nontunneled centrally inserted catheter without subcutaneous port or pump
- **36581** Tunneled centrally inserted catheter without subcutaneous port or pump

- **36582** Tunneled centrally inserted catheter with subcutaneous port
- **36583** Tunneled centrally inserted catheter with subcutaneous pump
- **36584** Peripherally inserted catheter without subcutaneous port or pump
- **36585** Peripherally inserted catheter with subcutaneous port

If the device is removed and replaced in a different site, assign two codes, one for insertion and one for removal.

Removal of Central Venous Access

There are two codes for central venous access removal, one for removal of a tunneled catheter without a subcutaneous port or pump (**36589**), and one for removal of a tunneled catheter, central or peripheral insertion, with a subcutaneous port or pump (VAD) (**36590**). The parenthetic note following code 36590 cautions that these codes are not to be used to report removal of nontunneled catheters, which continues to be reported as part of an evaluation and management service. Do not assign an unlisted procedure code to report removal of a nontunneled catheter.

Mechanical Removal of Obstructive Material

As noted above, VADs may become occluded by precipitate matter or fibrin overgrowth. Two new codes were developed to report removal of this material:

- **36595** Mechanical removal of pericatheter obstructive material (e.g., fibrin sheath) from central venous device via separate venous access
- **36596** Mechanical removal of intraluminal (intracatheter) obstructive material from central venous device through device lumen

Parenthetic notes direct that when thrombolytic agents are used to remove occlusive material, code **36550** (Declotting by thrombolytic agent of implanted vascular access device or catheter) is used; this code should not be reported with either of the above mechanical removal codes.

Other Central Venous Access Procedures

There is one final code in this new section, **36597**, Repositioning of previously placed central venous catheter under fluoroscopic guidance. Notes direct that the fluoroscopic guidance should also be coded with **76000**.

Imaging Guidance for Central Venous Access Procedures

Two new imaging codes have been added to report visualization in conjunction with these new codes:

- **76937** Ultrasonic guidance for vascular access requiring ultrasound evaluation of potential access sites, documentation of selected vessel patency, concurrent real-time ultrasound visualization of vascular needle entry, with permanent recording and reporting
- **75998** Fluoroscopic guidance for central vascular access device placement, replacement (catheter only or complete), or removal (includes fluoroscopic guidance for vascular access and catheter manipulation, any necessary contrast injections through access site, or catheter with related venography), radiologic supervision and interpretation, and radiologic documentation of final catheter position

Note the requirement for documentation and a permanent record. Note also that code 75998 includes fluoroscopic guidance, so codes 76003 or 76000 should not be reported in addition. Of course, both codes 75998 and 76937 are add-on codes. All facilities that perform these procedures should review the diagnostic imaging department chargemaster to ensure that the appropriate codes are being reported.

References

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