Coding Cardiovascular Catheterization: Accuracy Requires a Multidisciplinary Effort

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Cardiac catheterization procedures involve the insertion of a catheter into a chamber or vessel of the heart for investigational and interventional purposes. A small puncture is made most commonly in the femoral artery in the groin region. A guidewire is then inserted into the incision and threaded through the artery into the area of the heart that requires treatment.

At this point, the area is visualized by fluoroscopy or echocardiogram, and a catheter is threaded over the guidewire. If fluoroscopy is used, a radiocontrast agent will be administered intravenously during the procedure.

Further interventions are determined based upon the cardiac cath findings. These interventional procedures include percutaneous transluminal coronary angioplasty (PTCA), athrectomy, and stent insertion. When the interventions are complete, the catheter is removed. Coronary catheterization is a subset of this technique and involves the catheterization of the coronary arteries.

Coding Cardiac Catheterizations

These procedures present a variety of challenges due to the number of codes required for complete and accurate representation of the procedure performed. The CPT and HCPCS codes for these procedures represent both the procedure and the devices implanted and catheters used during the procedure.

The diagnostic procedures included in cardiac catheterization are introduction, positioning, and repositioning of catheter(s); recording of intracardiac and intravascular pressures; obtaining blood samples for measurement of blood gases or dilution curves and cardiac output measurements, with or without electrode catheter placement; and final evaluation and report of procedure.

The complexity of the coding is compounded when interventional procedures follow the initial diagnostic procedure.

In hospitals and within the confines of unique hospital information systems, these services are often charged and coded at the point of service. Charges are created using information from the charge description master (CDM). The CPT and HCPCS codes for these services are mapped to these charges, thus hard coding the procedure in the CDM.

Clinical staff in the cardiac cath lab is responsible for the initial code assignment for these procedures. Because of this, maintenance of quarterly updates can be an issue, which can potentially affect accurate code assignment.

Coders are ultimately responsible for validating the accuracy of the CPT and HCPCS codes that originated in the cardiac cath lab. Validating rather than assigning codes is different than the usual coding tasks and would be affected by the physician's documentation. In addition, coders often are also responsible for adding required modifiers.

Packaged Services

For APC reimbursement many elements of the cardiac catheterization procedure require codes that are not separately reimbursed but are packaged services. In the APC system, these packaged codes are identified as status N codes.

For example, a Medicare patient has a left heart catheterization with coronary angiography and left ventriculogram that includes the following CPT and HCPCS codes:

- 93510, Left heart catheterization, retrograde, from the brachial artery, axillary artery or femoral artery; percutaneous (status T)
- 93543, Injection procedure during cardiac catheterization; for selective left ventricular or left atrial angiography (status N)
- 93545, Injection procedure during cardiac catheterization; for selective coronary angiography (status N)
- 93555, Imaging supervision, interpretation, and report for injection procedure(s) during cardiac catheterization; ventricular and/or atrial angiography (status N)
- 93556, Imaging supervision, interpretation, and report for injection procedure(s) during cardiac catheterization; pulmonary angiography, aortography, and/or selective coronary angiography including venous bypass grafts and arterial conduits (status N)
- G0269, Placement of occlusive device into either a venous or arterial access site, post-surgical or interventional procedure (status N)

All CPT and HCPCS codes in this case are packaged (not separately payable) except 93510. However, all codes must be reported. If this same patient also had a PTCA of two vessels (right and left coronary) with insertion of a drug-eluting stent into one vessel (right coronary) at the same time as the cardiac catheterization, the following codes would also be included:

- G0290, Transcatheter placement of drug eluting intracoronary stent(s), percutaneous, with or without other therapeutic intervention, any method; single vessel (status T). (This G code includes the PTCA of the vessel.)
- 92984 -RC, Percutaneous transluminal coronary balloon angioplasty; each additional vessel (status T).
- C1874, Stent, coated/covered, with delivery system (status N).
- C1725, Catheter, transluminal angioplasty, nonlaser (status N).

Again, all codes except 92984 and G0290 are packaged, but all codes should be reported for complete and correct billing. Although these procedures do not receive additional reimbursement, it is important to capture and report all codes that are integral to the procedure performed.

Separate Device Codes

Implanted devices must be hard coded with the appropriate HCPCS codes for procedures that involve implanted devices. The assigned HCPCS codes need to be validated and monitored on a regular basis as devices change, vendors change, and new FDA-approved devices are added.

Procedure and Device Edits

Effective January 1, 2005, the Center for Medicare and Medicaid Services mandated that Outpatient Prospective Payment System (OPPS) hospitals that report procedure codes requiring the use of devices must also report the applicable HCPCS codes and charges for all devices that are used to perform the procedure. This change was enacted so that the OPPS payment for these procedures will be correct in the future.

To avoid payment denial, coders must determine if the appropriate device code is on the claim. This can be problematic when point-of-service charge for the device is not created or the incorrect device code is assigned. This may increase the potential for missed charges if a charge does not exist for a device being used.

Cath Lab Documentation versus Physician Documentation

A possible area of code variance is point-of-service charging and physician documentation of the procedures performed. CPT and HCPCS codes are assigned at point of service based on the cath lab case log; coders will validate the assigned codes based on the physician documentation. Because the final physician documentation is not available at the time of initial code assignment, coders should check the physician documentation when validating the codes to ensure appropriate reimbursement.

Methods to correct coding errors or omissions and apply corrections in hospital coding and billing systems can be problematic.

Front-End versus Back-End Grouping

Many hospitals employ front-end grouping of codes, meaning that coders can review point-of-service charges to ensure accuracy of codes, add required modifiers, and review and correct potential Correct Coding Initiative (CCI) and Outpatient Code Edits (OCE).

In a back-end grouping scenario, the grouping and edits are done during the billing process. Claims with edits are returned either to the HIM department for review or to the charging department for correction.

In either scenario, it is imperative that the individual within the organization is well versed in the complexities of cath lab coding as well as the associated CCI and OCE edits.

Quarterly and Yearly Code Changes

Quarterly OPPS updates and yearly CPT changes are part of a coding department's normal course of business; however, they may pose challenges to the clinical staff in the cardiac catheterization department. These updates and changes will likely affect the information in the charge description master.

CPT changes for 2009 include new codes for pre- and periprocedural device evaluations of pacemaker systems and internal cardioverter defibrillators and new codes for wearable mobile cardiovascular telemetry. These codes should be evaluated for use and incorporated into a hospital chargemaster, with concurrent education to staff and coders.

Ongoing communication and education between coding and cath lab staff is an essential component in successful implementation of these updates and changes.

A Multidisciplinary Effort

The development of a strong working relationship between HIM and the cardiac cath lab will ultimately be reflected in successful billing and reimbursement of these procedures. Billing and correct coding edits should be minimal in an organization with robust education and communication plans between departments.

A department specialty coder or reimbursement specialist may fill the void between documentation, charging, coding, and accurate reimbursement. This staff member would perform all functions related to documentation issues, including coding, charging, medical necessity reviews, and other functions necessary for appropriate reporting and billing of procedures. This specialty coder would also assume the role of educator for the clinical staff as the updates and changes relate to the procedures they are performing.

Cardiovascular coding and billing requires a multidisciplinary effort in order to produce accurate and timely claim submission.

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