How to Effectively Code Drug-eluting Stents:Complicated Procedure, New Codes Make Coding Tricky

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In the past 10 years, coronary stenting has become an effective technique for percutaneous treatment of atherosclerotic heart disease. Although stenting has successfully reduced the rate of restenosis, the incidence of in-stent restenosis continues to be a major complication of the procedure.

Restenosis occurs in 15 to 35 percent of in-stent cases. The addition of a therapeutic agent can reduce restenosis once a stent has been placed. This article will provide an overview of coronary and non-coronary stent placement and how to code these procedures.

What Is Coronary Stenting?

Coronary stenting has been used in the treatment of coronary artery disease (CAD) and is less invasive than the coronary artery bypass graft. The stents are designed to treat blockages in arteries by propping open the occluded portion of the artery. A coronary stent is a flexible metal mesh tube placed at the site of a blockage in a coronary artery. The stent supports the arterial wall and maintains blood flow through this newly opened vessel.

During angioplasty, a balloon mounted on a catheter is guided to the site of occlusion in the artery. Pumping and rubbing the balloon against the clog clears the blockage. Subsequently, a stent is placed at the site to prevent the collapse of the arterial walls. Non-coronary stents are also used in the treatment of occluded or stenosis vessels. The vascular stents are often used to enhance primary patency following percutaneous transluminal angioplasty (PTA) in arteries and veins, usually at the site of stenotic or occlusive lesions. Stents may be used as an adjunct to technically inadequate PTA or in cases in which PTA alone are not expected to provide a durable result.

The introduction of a stent into the body causes injury to the vessel, and the stent is considered a foreign body. The body's natural reaction to injury is to heal itself by growing healthy cells at the site of the injury, which, in the case of the coronary stent, cause reclosure. Shortly after the introduction of the stent, fibrin deposition, platelet activation, and thrombus formation take place. The process also involves acute inflammatory cells, granulation tissue formation, and the local release of a large number of substances. This leads to restenosis of the vessel.

Coronary stents have been effective in the treatment of CAD, but there is a significant portion of patients that experience restenosis of the coronary artery. Many technologies have been researched over the years to help solve the problem of restenosis. The development of a drug-eluting stent has proven to reduce or eliminate restenosis in clinical trials. A drug-eluting stent is coated with a drug that is designed to control the release of a drug into surrounding tissue. The intention of this time-release process is to slow down the growth of unwanted cells (restenosis) and allow the vessel to heal. This continuous protective medicine is then provided during the critical period following angioplasty when restenosis could occur.

Vascular stents are tubular-shaped devices that are threaded to a precise area within a vessel and then expanded to provide support to that vessel. These stents may be used to induce or maintain patency in narrowed or obstructed vessels.

Coding Drug-eluting Stents

Effective October 1, 2002, code 36.06 has been revised to read: Insertion of non-drug eluting coronary artery stent. New inclusionary sub-terms include: bare stent, bonded stent, drug-coated stent, endograft, and endovascular graft. Drug-eluting coronary artery stents should be coded to 36.07. This new code includes endografts, endovascular grafts, and stent grafts.

Because an angioplasty, by any technique, is inherent in the placement of a stent(s), the appropriate coronary angioplasty code (36.01-36.05) should be assigned, followed by a code for placement of the coronary stent. The new stent codes would not be assigned as stand-alone codes.

A new code has also been created for the insertion of drug-eluting non-coronary artery stents (00.55). This includes endografts, endovascular grafts, and stent grafts. The coder should also assign a code for any non-coronary angioplasty or atherectomy.

The coder should carefully review the procedure report for documentation of the angioplasty and stent placement. Identification of the use of the drug-eluting stents will be critical in the assignment of the appropriate ICD-9-CM procedure code. HIM departments should work with interventional cardiology clinicians in order to determine how and where this is documented in the medical record, and coders should be educated about the nature of this documentation.

Choosing the Correct Codes

The following are scenarios in which a drug-eluting stent procedure is required and how the procedure should be coded:

A 62-year-old male with a history of CAD, unstable angina, and multiple angioplasty with subsequent restenosis is admitted for coronary artery stent placement. The patient is taken to the cardiac catheterization lab where angioplasty is carried out and a drug-eluting stent is placed.

Assign codes 36.01 for single vessel percutaneous coronary angioplasty and 36.07 for the insertion of the drug-eluting coronary artery stent.

A 73-year-old female is admitted for the insertion of a renal artery stent. The patient has severe atherosclerosis of the renal artery and hypertension. A drug-eluting renal artery stent is placed.

Assign codes 39.50 for angioplasty or atherectomy of non-coronary vessel and code 00.55 for the insertion of the drug-eluting non-coronary artery stent.

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