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Part B Insider (Multispecialty) Coding Alert

Anatomy : Look For Bovine Arch, Other Anomalies In Cardiac Patients

Scan operative report for clues to bovine arch

The bovine arch is fairly common, occurring in roughly 20 percent of patients, according to the Textbook of Angiography (Harper and Row, 1980). In this situation, the right brachiocephalic and the left carotid share the same trunk from the aortic arch.

The presence of the bovine arch means that both arteries are in the same vascular family, says **Jeff Fulkerson**, supervisor of radiology billing at the **Emory Clinic** in Atlanta. So if you catheterize both, you'll have to bill for one with 36216 (Initial second order thoracic or brachiocephalic branch, within a vascular family) and the other with **CPT 36218** (Additional second order, third order and beyond, thoracic or brachiocephalic branch, within a vascular family [list in addition to initial second or third order vessel as appropriate]).

"With the bovine arch all the catheter orders are kind of shifted one higher," explains **Jackie Miller**. In the most common bovine arch configuration, the left carotid comes off the brachiocephalic instead of the aortic arch.

Normally, for the left common carotid and the brachiocephalic, you'd bill 36215 -59 (first order) for the left and 36216 for the right. These would show that two separate vascular families were selected, explains **Julie Brouwer** with **Professional Management** in Waterloo, IA. If the patient has a bovine arch, you don't need a modifier because there's no CCI edit governing two catheterizations in the same family and 36218 is already reduced in price.

But figuring out if the patient has a bovine arch can require some detective work. Train the radiologist to list first in the operative report if the patient had a bovine arch. Oftentimes, the radiologist will describe the work he or she did and which vessels he or she catheterized. But "right at the beginning it should be clear this patient is special," says Fulkerson. Otherwise, the coder will code as normal.

"You wouldn't do that automatically, you really have to have a good understanding of what the patient's specific anatomy is," says Miller. "Sometimes radiologists aren't so good about describing where the vessel arises." She advises a careful reading of the angiogram report to look for clues to abnormal anatomy.

Watch out: The physician may refer to the innominate artery and mean the brachiocephalic, says Brouwer.

If the coder bills for a second or third order catheterization instead of a first order, the practice will wrongly receive a little more reimbursement. In that case, the carrier could come back one day and demand a repayment. But the main concern is, "are you coding the exam to the highest specificity?" Fulkerson says.

If the physician does imaging on both sides of the head, you'd bill a bilateral intercranial interpretation (75671), and if the physician performs actual carotid neck pictures you'd bill a bilateral carotid cervical interpretation (75680).

Fulkerson offers another example of an anatomical variant: A patient has a right bronchial that actually serves as a trunk for both the right bronchial and an intercostal that connects directly to the aorta. In that case, you should bill 36216 instead of 36215 (Selective catheter placement, each first order thoracic or brachiocephalic branch, within a vascular family). The trunk is coming directly off the aorta and then forks into a brachial and an intercostal, so it becomes a first order catheterization.

If the patient has a left vertebral coming directly off the aorta, the physician needs to mention this variation or else the coder will bill a 36216 or 36217 (Initial third order or more selective thoracic or brachiocephalic branch, within a vascular

family). In fact, the coder should bill 36215, because this is another first order catheterization.