## Appropriate Reporting of Diagnostic Angiography

Differentiating diagnostic angiography from imaging that is included with the work of vascular interventions.

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Many attempts have been made to bundle the work of diagnostic angiography into vascular interventional codes. These efforts stem largely from a lack of clarity on what constitutes a diagnostic angiogram, work that is separate from the radiologic supervi-

sion and interpretation work inherent to an intervention. This lack of clarity has led to erroneous reporting of diagnostic angiography in cases where the imaging and guidance for performance of an intervention was mistaken for the work of a diagnostic angiogram, and thus the work was reported and paid for twice during the same procedure.

## DIFFERENTIATING DIAGNOSTIC AND INTERVENTIONAL ANGIOGRAPHY

Because diagnostic angiography is important and separate work, it must be accurately reported to preserve the value of this work. To do so, there needs to be an understanding of the work included in diagnostic angiography CPT codes, as well as the work included in the codes describing vascular interventions. Although there may be gray areas between these two types of imaging, there are some basic guidelines that can help distinguish between the two in most cases.

All vascular therapeutic codes include imaging to guide the intervention. In the past, this imaging has largely been reported with separate RS&I (radiologic supervision and interpretation) codes that were reported in addition to the surgical CPT codes for the intervention. Historically, there was a time when the surgical portion of the intervention may have been performed by one physician and another physician performed the RS&I work, so there was a need for separate codes to report the work that was done. In current practice, a single provider almost always performs both aspects of the service, and this has led to "bundling" the two components of work into single codes.

As the interventional codes have been bundled, the RS&I portion of the intervention has been included with the surgical portion of the work, resulting in a single code that encompasses all imaging for the intervention. This includes all fluoroscopy, contrast injections, and angiography performed to accomplish the intervention, as well as all imaging to confirm previously diagnosed anatomy and pathology, vessel sizing, guidance for the intervention, and follow-up imaging to inform progress and completion of the intervention. It also includes imaging performed to document the presence or absence of local complications at the end of the procedure.

True diagnostic angiography allows a complete study of the organ or body part of interest to examine the pathology causing the patient's symptoms and outline the patient's unique anatomy. A diagnostic study is commonly performed to diagnose the patient's problem and to formulate a plan for therapy (either interventional or noninterventional). With today's technologies, a diagnostic study may be performed via catheter-based angiography, CT angiography, and/or magnetic resonance angiography. All of these modalities can yield accurate imaging of the patient's anatomy and pathology, and therapeutic decisions are often made from any one of these modalities.

The patient may then be scheduled for a therapeutic intervention based on these findings. For instance, a patient suffering from lower extremity claudication may be scheduled for iliac stent placement based on the findings of a focal 90% stenosis of the common iliac artery with normal distal vascular anatomy on CT angiography, magnetic resonance angiography, or catheter-based angiography. In cases where a complete diagnostic study has been performed, and the therapeutic intervention has been scheduled based on that study, a repeat diagnostic angiogram is not likely to be needed, and typically should not be repeated or reported. This is true even if no previous catheter-based angiography has been performed.

At the time of intervention, imaging that is performed to confirm the pathology identified on the diagnostic study is considered inherent to the imaging of the intervention, and therefore it is not reported as a diagnostic angiogram. In the case of catheter-based diagnostic angiography, there are times when the diagnostic study may be performed, but the intervention gets postponed until a later date. For instance, in complex disease, it may be important to discuss the findings with the patient and family in detail before beginning the intervention, allowing an overall plan of care for the patient's disease and allowing the patient to assist in the risk/benefit discussion and decisions. In these cases, the initial diagnostic angiogram is unlikely to need repeating at the time of the intervention.

There are some specific circumstances in which repeat diagnostic angiography at the time of intervention is indicated and may be reportable:

- The time interval between the original diagnostic study and the actual intervention is unusually long, such that disease progression may have occurred, and it would be possible that the pathology/anatomy may now be different.
- The initial diagnostic study was incomplete, and the anatomy/pathology was not clearly documented. This is particularly pertinent if the diagnostic study was performed elsewhere, and the quality of the study could not be controlled by the intervening physician. There may be mitigating factors that could lead to the need to repeat the diagnostic angiography, such as an uncooperative patient, leading to an inability to perform a complete study at the time of the initial diagnostic angiography. However, consideration should then be given to reporting one of the diagnostic angiography procedures with a -52 modifier to designate that it was not a complete study.
- A clinical change occurs between the time of the diagnostic study and the time of the intervention, suggesting a change in the patient's pathology.
- Imaging at the time of intervention shows significant change(s) from the original diagnostic study, necessitating repeat imaging to assess the current pathology/anatomy and to reassess the interventional options.
- A significant clinical change occurs during the intervention, requiring repeat diagnostic study to determine what is causing the clinical change. For instance, if the patient's foot is pale and cool after an iliac intervention, a formal diagnostic study may be required to determine whether there is distal embolization, spasm, puncture site thrombosis, etc.

When a diagnostic angiography is required and a complete study is performed in the same setting as an intervention, it should be reported with a -59 modifier appended to the diagnostic angiography code(s). Appending this modifier signifies that you are reporting (1) an initial diagnostic study that was used to diagnose the patient's pathology and to plan the intervention, or (2) one of the above exceptions has led to the need for a new diagnostic angiogram.

In addition to a complete description of the diagnostic angiography, the report in the patient's permanent record should include a clear description of the indication for diagnostic angiography performed with the intervention. If only a partial diagnostic study is needed or performed, the -52 modifier may be used to indicate that a reduced service was performed or required.

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