Coding of Procedures in Interventional Nephrology

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Introduction

Proper coding of interventional procedures is a difficult and daunting, but essential task. Each procedure that is done is made up of a number of parts, each of which has its own code. This requires that a list of component codes be created for each procedure based upon selections made from a long list of alternatives. It is important that this be done correctly. However, many of the potential codes are not specific, many have exclusions and some are bundled. Add to this the fact that changes in coding are being made on a constant and continuing basis. There is no question, the process can be daunting.

The Renal Physician's Association and The American Society of Diagnostic and Interventional Nephrology have established a joint task force to develop an educational document relating to appropriate coding in interventional nephrology practice. The goal of this document is to define the use of the codes that might be used by the interventionalist in such a way that an individual nephrologist performing these procedures can make appropriate coding selections.

Members of the task force:

Gerald A. Beathard, MD, PhD – Co-Chairman (RPA)
Austin, Texas

Don Schon, MD Co-Chairman (ASDIN)
Phoenix, Arizona

Richard Hamburger, MD
Indianapolis, Indiana

Randy Rasmussen, MD
Berkley, California

Theodore F. Saad, MD
Newark, Delaware

Debbie Lawson, CPC
Norfolk, Virginia

R. Blaser (Staff)
Rockville, MD

Grouping of Codes

Because of the way the individual CPT codes are designed, it is generally necessary to use a group of codes for an interventional procedure. At times, this grouping will vary somewhat for the same procedure. For example, in doing a thrombectomy, there are some steps that are always performed (cannulation, thrombectomy) however, there are some steps that may or may not be performed depending upon the circumstance (arterial angioplasty). Therefore, in doing the coding you should start with the basic set of codes for that procedure and add to it as needed. In either instance you will end up with a list of codes. In order to create this group or list of codes, the individual procedure or service must be understood. Additionally, CCI Edits should be reviewed for each group of codes.

Note:

CCI Edits - The Centers for Medicare and Medicaid Services (CMS) developed the National Correct Coding Initiative (CCI) to promote national correct coding methodologies and to control improper coding that leads to inappropriate payment in Part B claims. The coding policies developed are based on coding conventions defined in the American Medical Association's CPT manual, national and local policies and edits, coding guidelines developed by national societies, analysis of standard medical and surgical practice and review of current coding practice. CCI edits are editorial comments that are issued to clarify coding issues. If there is a special restriction or requirement for the use of a specific CPT code, it will be published as a CCI Edit. CCI Edits are updated quarterly, updates should be ordered and reviewed quarterly.

Individual Codes Used For Vascular Access Procedures

It is perhaps easiest to organize a review of individual codes by looking at the procedure being performed. Compared to other areas, cardiology coding for example, relatively few peripheral interventions are considered bundled, therefore, detailing everything performed and reviewing CCI Edits is essential to accurate coding and reimbursement.

Angioplasty

Primary codes

We will start with the primary codes that are generally used with this procedure. In addition, there are several secondary codes that may occasionally be used. These will be discussed after the primary codes. If a complication occurs, it might also generate additional codes.

Table 1 - Codes Used for Angioplasty

Primary -

- 36145 – Cannulation
- 75790 – Angiogram of graft or fistula
- 35476 – Venous angioplasty
- 75978 – Supervision and interpretation of 35476
- 93040 – EKG interpretation

Secondary (occasional) -

- 36145-59 – Second cannulation
- 35475 – Arterial angioplasty
- 75962 – Supervision and interpretation of 35475
- 75710 - Arteriogram of extremity
- 75820-59 – Angiogram of draining veins (separate procedure)
- 75827-59 – Angiogram of superior vena cava (separate procedure)
- 75825-59 - Angiogram of inferior vena cava (separate procedure)
- 36010 - Selective catheterization of SVC or IVC
- 36215 - Selective catheterization first order branch (arterial - upper extremity)
- 36216 - Selective catheterization second order branch (arterial - upper extremity)
- 35245 – Selective catheterization of first order branch (arterial - lower extremity)
- 36120 - Cannulation of brachial artery via direct puncture

♦ Cannulation (catheterization) code

Cannulation or catheterization (in this context, the terms are used to mean the same) may be either selective or non-selective. It may also involve both arterial and venous vessels. In order to code properly, this concept must be mastered.

Non-selective cannulation - The most frequently performed cannulation is non-selective. The target vessel is entered directly and is not manipulated further. The target vessel has been accessed and the procedure is over. The code 36145 is a non-selective cannulation code which is specific for the dialysis access (either fistula or graft). The descriptor for 36145 is – introduction of needle or catheter into an arteriovenous shunt created for dialysis (cannula, fistula, or graft). This code would be used when either a graft or a fistula is cannulated. (It is not an appropriate code for use when a vein is cannulated as for vein mapping.)

Selective catheterization - With selective catheterization, the device being used is manipulated in some manner in order to advance from the first vascular structure entered to the target vessel,

either an artery or a vein. The key word here is manipulated. If the target vessel is a direct continuation of the initial vascular structure entered, then the procedure should not be considered as a selective catheterization. For example, an AVF is cannulated, but the target vessel is the radial artery, in order to enter the radial artery manipulation is required. This would be a selective catheterization. On the other hand, if a graft is cannulated and the target vessel is simply a continuation of the access such as the basilic vein leading into the axillary vein and on into the subclavian vein, no manipulation is required to advance a device into the downstream vessels. This would not warrant a selective catheterization code.

Note: There are times when entering a downstream continuation vessel does require manipulation. An example would be a case in which there is a stenosis that does not allow for visualization of the segment of the drainage beyond the stenosis. The performance of an angiogram and the treatment of the case, if medically indicated, may require that the artery or vein beyond the lesion be selectively catheterized. This manipulation would warrant the use of a selective catheterization code.

For purposes of clarity we shall address arterial and venous selective cannulation separately.

Artery - The unique pathology presented by an individual case may require that for the performance of an angiogram and the treatment of the case, if medically indicated, that the artery beyond the lesion be selectively catheterized. In this instance either the code 36215 or 36216 would be warranted depending upon the specific order of the target artery involved (Figure 1). The descriptor for 36215 is – selective catheter placement, arterial system, each first order thoracic or brachiocephalic branch, within a vascular family. For the code 36216, the descriptor is - selective catheter placement, arterial system; initial second order thoracic or brachiocephalic branch, within a vascular family. If dealing with a thigh graft, the first order branch would be the femoral artery. The code for this would be 36245. The descriptor for this code is - selective catheter placement, arterial system; each first order abdominal, pelvic or lower extremity artery branch, within a vascular family.

In applying selective and non-selective catheterization codes, one should use the vascular family concept. These codes were developed for use based upon cannulation of a central vessel from which one progresses peripherally. In dealing with dialysis access dysfunction; however, we use it in reverse. One is generally (although not always) accessing a peripheral vessel and progressing centrally. These codes are the ones that best describe the procedures being performed and are the only ones available, therefore their use is warranted.

A family of vessels refers to a vessel and its branches. Each vascular family is coded independently. As a vessel begins to branch the codes become more selective. As the code becomes more selective, the preceding code is dropped in favor of the more selective code. The first new branch that is reached is considered first order; the second is considered second order. Example: a patient has a radial-cephalic fistula. The fistula is cannulated (non-selective – code 36145). Then by manipulation a catheter is advanced into the radial artery, this would be the first order artery from that location (selective – code 36215, the 36145 code would be dropped).

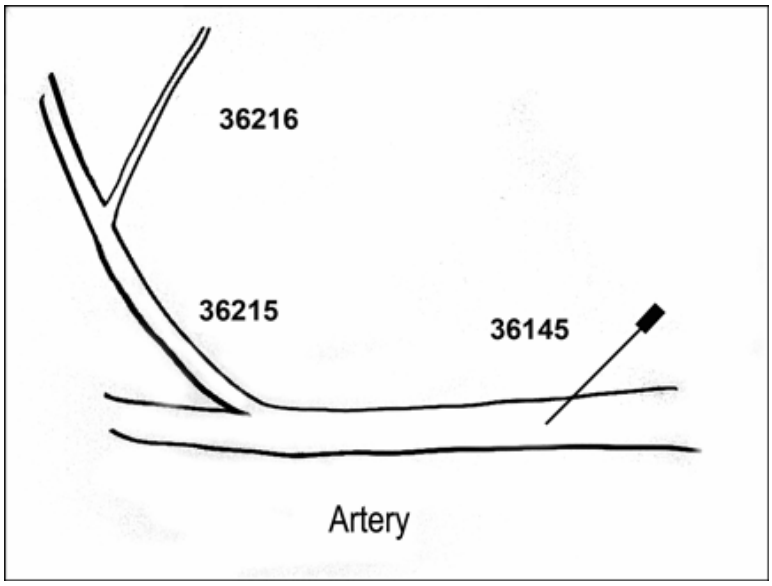

Figure 1 – Catheterization sequence for arterial catheterizations. Only the highest order code is used, the preceding codes are dropped.

Then the catheter is advanced further into the brachial artery which is the target vessel. This would be the second order artery from this location (selective – code 36216, the 36215 code would be dropped). The final coding for this procedure would utilize only the selective catheterization of a second order artery – 36216. Only the highest order code would be applied. The same principles hold true for the venous system.

Notice that these codes are not attached to an anatomically named vessel. The same vessel could be a first or second order branch depending on the vessel which was the primary site of access. If the brachial artery is selectively cannulated from a radial-cephalic fistula, it would be a second order branch. If the same vessel was catheterized from a brachial-cephalic graft, it would be a first order branch (it is the first artery that you come to from that site). Likewise, the radial artery would be a second order branch if reached by first passing through the brachial, but would be a first order branch if it is the artery attached to the access as is the case with a radial cephalic fistula. The code used in each instance must indicate the order of the branch rather than being specific for an anatomical name.

Vein - The exact same principles hold for selective venous catheterization. The code for catheterization of a 1st order venous branch is 36011. The descriptor for this code is – introduction of needle or intracatheter, vein; first order branch. The code for catheterization of a 2nd order venous branch is 36012. The descriptor for this code is – introduction of needle or intracatheter, vein; second order, or more selective, branch (Figure 2).

As stated above, there are times when entering a downstream continuation vessel does require manipulation. If an obstruction of the distal subclavian vein or cephalic arch precludes adequate visualization of the central vessels, selective catheterization with a diagnostic catheter would be warranted. This would be considered a first order selective catheterization and would be coded 36145.

Note: There is no unique code for the injection of the central vessels. With the exception of the superior vena cava, they are all lumped under 75820, the code for a venogram of the extremity. In this example 75820 would be the appropriate radiological code to use, with a 59 modifier.

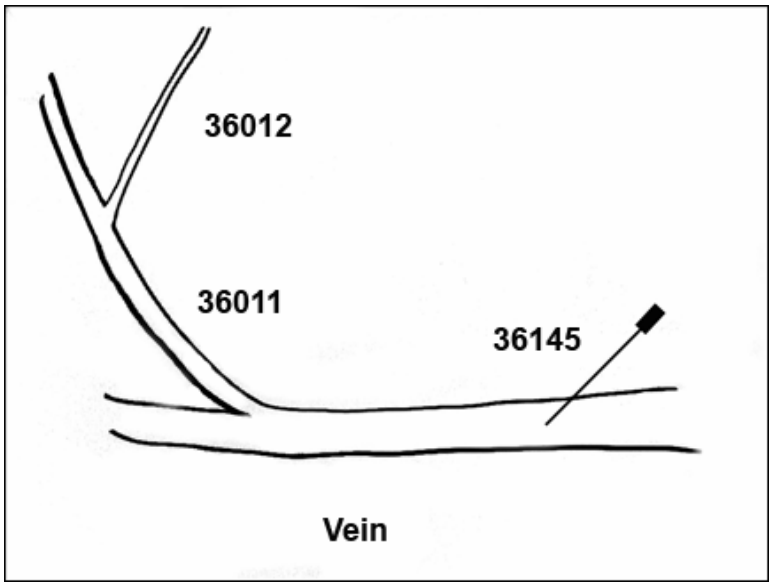

Figure 2 – Catheterization sequence for venous catheterizations. Only the highest order code is used, the preceding codes are dropped.

Within the venous system an exception to the observation that no vessel name is attached to these non-selective codes occurs. This is selective catheterization of the superior or inferior vena cava which does have a specific associated code. If selective catheterization of the superior vena cava is performed the code 36010 is used. The descriptor for this code is - introduction of catheter, superior or inferior vena cava. The associated code for radiological supervision and interpretation would be 75827. If the selective code 36010 is used, then the non-selective code 36145 should be dropped.

A cannulation (catheterization) code includes: "necessary local anesthesia, introduction of needles or catheter, injection of contrast media with or without automatic power injection, and/or necessary pre- and post injection care specifically related to the injection procedure".

Coding tip - If a selective catheterization is coded, the medical indication for the catheterization should also be clearly documented. The number of times the cannulation code 36145 is used should be decreased by one. The selective code always supersedes the non-selective code. If a second cannulation is performed then an additional single use of the 36145 code is warranted unless a second selective catheterization is also performed. In this instance it too would be superseded.

- Angiogram

When an angioplasty is done on either an AV graft or and AV fistula a series of vessels is examined. This examination generally goes all of the way from the graft or fistula up through the superior vena cava. There are actually separate codes for each of these vessels. The question is which code or codes should one use. Basically, what is considered appropriate is as follows.

Use 75790 for the graft (or fistula). The descriptor for this is – angiography, arteriovenous shunt (eg. dialysis patient) radiological supervision and interpretation. This code includes all of the graft from the arterial anastomosis to the venous anastomosis. It also includes the artery adjacent to the anastomosis. According to a CCI edit issued by CMS, when this code is used it includes the codes for the draining veins (75820) and for the superior vena cava (75827). In other words, these two additional codes are bundled with 75790. Basically, this means that under ordinary circumstances, these two codes can not be used when the code 75790 is used although the studies are performed. However, there is an exception. They can be used if the study that was performed qualifies as a separate procedure. In this situation, the appropriate code would be used with a 59 modifier.

The code 75820 is used to designate an angiogram of the draining veins. The descriptor for this code is – venography extremity, unilateral radiological supervision and interpretation. This code includes all of the veins above the access up to, but not including, the superior vena cava. To qualify as a separate procedure this study must be either performed by selectively catheterizing the veins (using a diagnostic catheter) in question or be performed by cannulating a separate site. For practical purposes this would probably occur only in association with a study of the central veins (subclavian and innominate). If selective catheterization of the central veins (not including the SVC) is performed from a separate site the code 36011 may be warranted (see detailed discussion under "Selective Catheterization of Central Draining Veins" on page 8). This code should not be used if these veins are catheterized through the access (graft or fistula).

If there is a medical indication for the evaluation of the superior vena cava and it qualifies as a separate procedure, it should also be coded using the code 75827-59. The descriptor for this code is – venography caval, superior, with serialography, radiological supervision and interpretation. To qualify as a separate procedure it must either be selectively catheterized (using a diagnostic catheter) or be performed by cannulating a separate site. If selective catheterization of the superior vena cava is performed the code 36010 is warranted. The descriptor for this code is - introduction of catheter, superior or inferior vena cava (see details below). The procedure note should document the indication for the use of this code. It should be noted that according to the descriptor, this code is for the superior vena cava and not for central veins in general. The subclavian and innominate veins are part of the draining veins.

Coding Tip: Clearly document in your procedure note all of the vessels that were studied and the findings of the study. In other words, state that the access was examined and that the draining veins were examined. Give the findings of both studies individually. It is also important to document both the medical necessity for doing a separate procedure (either selective catheterization or cannulation from a separate site) and the medical necessity for visualizing the draining vein.

In patients with an access placed in the thigh, angiographic studies will involve the inferior vena cava and its branches. The code for an angiogram of the inferior vena cava is 75825. The descriptor for this code is venography, caval, inferior, with serialography, radiological supervision and interpretation. The draining veins, i.e., the femoral, external iliac and common iliac are all covered by the code 75820. This is the same code as is used for the draining veins in the upper extremity. The descriptor for this code is - venography, extremity, unilateral, radiological supervision and interpretation. As is the case with the upper extremity codes, these codes can be

used with 75790 only if they qualify as a separate procedure. In this instance they would be used with the modifier -59. If selective catheterization of the inferior vena cava is performed the code 36010 should be used just as for the superior vena cava. The descriptor for this code is - introduction of catheter, superior or inferior vena cava.

It is important to note that although an angiogram may be repeated several times during the course of the angioplasty procedure, it should be coded only once.

Coding Tip: Clearly document the medical indication of this procedure in your procedure note if you code it. Give the findings of the study individually. . It is also important to document both the medical necessity for doing a separate procedure (either selective catheterization or cannulation from a separate site)

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- Venous Angioplasty

The code for venous angioplasty is 35476. The descriptor for this code is – transluminal balloon angioplasty, venous. The descriptor for this code is transluminal balloon angioplasty, venous, radiological supervision and interpretation. The degree of stenosis should always be documented in the procedure report. Basically, a stenosis of 50% or greater should be required prior to performing an angioplasty. This 3xxxx series code is always coupled with 75978 the code for radiological supervision and interpretation. The descriptor for this code is - transluminal balloon angioplasty, venous, radiological supervision and interpretation.

There are instances when these codes would be used more than once. If there are lesions present in two distinctly separate veins, not just a continuation of another vein, venous angioplasty would be coded twice using a -59 modifier.

Instances in which two angioplasties should be coded using a -59 modifier:

- If a lesion is present within two distinctly different vascular structures:
  - If a lesion is present within the graft and a second lesion is present in the adjacent draining vein (either cephalic or basilic) more than 2 cm from the venous anastomosis. (The portion of the vein within 2 cm of the anastomosis should be included with the venous anastomosis), it should be considered as two separate angioplasties even though both are dilated with the same angioplasty balloon.
  - If a lesion is present within two distinctly different veins, even though both are dilated with the same angioplasty balloon, it should be considered as two separate angioplasties. This would be true whether the two veins are contiguous (connecting without a break) or not. Examples: (1) If a lesion is present in the forearm cephalic vein portion of a fistula and a second lesion is present in the basilic vein in the upper arm (or the basilic and axillary), both should be coded even though they are contiguous. (2) If there is double drainage in the upper arm, both cephalic and basilic, and a lesion is present in both requiring that both be catheterized separately, then coding of both is warranted.

- If two lesions are treated in the same vessel, but her location requires that they be accessed from different venous sites, then the coding of two angioplasties is warranted. For example, if a patient with a radial-cephalic fistula has both a very low lesion and a high lesion, it is often necessary to cannulate low and antegrade to get the high lesion and then

high and retrograde to get the low lesion. In this situation, the fact that a second venous access site was necessary qualifies this as a separate procedure and warrants a second code with a -59 modifier.

There are definite instances when two codes would not be used.

- If a lesion or an area within the vein is dilated multiple times, it would not be considered as multiple angioplasties.

- If a single lesion is dilated with two separate balloons, it would not count as multiple procedures.

- If an unusually long lesion is dilated, requiring multiple dilatations, but all within the same vein, it would be counted as a single angioplasty.

Coding Tip: Clearly document the site of the lesion and the size of the balloon used for each angioplasty performed. Treat them as separate procedures in your report.

- EKG Monitoring

The code for EKG monitoring is 93040. The descriptor for this code is – rhythm EKG, one to three leads, with interpretation and report. As the descriptor indicates this code requires an interpretation and report. This can be incorporated into the procedure report, but the documentation and medical necessity is required in order to bill the procedure.

Coding Tip: Clearly document the interpretation of the EKG in your report. The ASA (American Society of Anesthesiology) classification of the patient should also be included in the record along with documentation that the patient received sedation/analgesia. These facts will serve as medical indication for EKG monitoring.

Secondary codes

These codes may be used in an occasional case where the need is dictated.

- Catheterization of the Superior Vena Cava

The code for catheterization of the superior vena cava is 36010. The descriptor for this code is - introduction of catheter, superior or inferior vena cava. In essence, this is a selective catheterization of the superior vena cava (or inferior vena cava as the case may be). It requires a medical indication for the catheterization. The mere fact that you have a catheter in the central veins to administer medications or to do a "pull-back" venogram is not a medical indication (this might be the case with a thrombectomy). The most common medical indication is an instance where you can not pass a guidewire, there is pathology present and flow through the area is marginal or not apparent. In such a case, passing a diagnostic catheter up to the superior vena cava and using it to perform an angiogram is medically valid. When this code is used, the medical indication for the selective catheterization should be clearly documented. Additionally, one should not use the 36145 code for cannulation with this code. The code 36010 represents a higher order of accessing the vasculature and should be considered to supersede the use of 36145. . It should be noted in relation to the 36010 code that it indicates the introduction of a diagnostic catheter and

not just a catheter. For example, the fact that an angioplasty balloon catheter is passed into the superior vena cava would not qualify nor would the placement of a hemodialysis catheter.

- Selective Catheterization of the Central Draining Veins

There are times when the central draining veins, i.e., the subclavian and innominant veins, are not well visualized with the routine procedure. Where there is a medical indication for their evaluation, it may be necessary to use a diagnostic catheter to inject radiocontrast close to their origin. Although this is a selective catheter placement in a first order branch of the superior vena cava and there is a code for this procedure 36011, it should not be used under ordinary circumstances. In most instances, the approach to the central veins will be through the graft and not through the superior vena cava, this makes this code inappropriate. If a procedure is done in which the central veins are approached form the opposite direction, i.e., through the superior vena cava, then the 36011 code would be warranted. This would be the case if one were trying to cross an obstruction in the subclavian from a femoral approach, for example. Again as above, one should not use the 36145 code for cannulation with this code. The code 36011 represents a higher order of accessing the vasculature and should be considered to supersede the use of 36145.

Coding Tip: When either the 36010 or the 36011 codes are used, be careful to fully document the medical necessity for the selective catheter placement as well as the medical necessity for the basic study such as 75827-59.

- Second Cannulation

If the procedure being performed requires a second cannulation, then 36145 is used a second time with a modifier – 36145-59.

Coding Tip: Document the site of introduction and if more than one site is involved, clearly document each site. List the medical indication for the separate procedure. Modifier 59 will need to be attached to indicate introduction at a separate site.

- Arteriogram

The code for arteriogram is 75710. The descriptor for this code is – angiogram, extremity, unilateral, radiological supervision and interpretation. There should also be a clear medical indication for the study. An examination of the artery adjacent to the arterial anastomosis is included in the 75790 code. This should be interpreted as being within 2 cm of the anastomosis. Use of this code would be warranted only if you examined a larger segment of the artery. Examination of the entire artery is not required, however. The general rule should be – examine that portion of the artery that is necessary to make a diagnostic evaluation related to your medical indication.

This arteriogram may be performed by selective catheterization of the artery or by occluding the access downstream and refluxing radiocontrast into the artery. The technique used to perform the arteriogram does not affect the use of the code. However, the extent of the segment of artery examined is important regardless of the technique used.

Coding Tip: If an arteriogram code is used, the procedure note should clearly define the medical indication for the study. If a selective catheterization is coded, the medical indication for the catheterization should also be detailed. The number of times the cannulation code 36145 is used

should be decreased by one. The 36215 or 36316 code supersedes the 36145 code. If a second cannulation is performed then a single use of the 36145 code is warranted.

- Cannulation of Brachial Artery

Occasionally, it is necessary to cannulate the brachial artery in order to accomplish the required task. The code for cannulation of the brachial artery is 36120. The descriptor for this code is - introduction of needle or intracatheter; retrograde brachial artery.

- Arterial Angioplasty

The code for arterial angioplasty is 35475. The descriptor for this code is – transluminal balloon angioplasty, brachiocephalic trunk or branches, each vessel. This 3xxxx series code is always coupled with 75962 the code for radiological supervision and interpretation. The descriptor for this code is - transluminal balloon angioplasty, peripheral artery, radiological supervision and interpretation. It is appropriate to use this code for dilatation of the arterial anastomosis.

Stenosis of the artery feeding the access at any point should obviously be classified as an arterial angioplasty. In addition, treatment of a stenosis of the arterial anastomosis should be classified as an arterial angioplasty. When doing an angiogram, visualization of the artery within 2 cm of the anastomosis is considered part of the access itself and to warrant the use of the arteriogram code, one must look at more of the artery than this restrictive zone. However, if one treats the arterial anastomosis with an angioplasty balloon it represents a situation quite different from a venous angioplasty because of the obligatory involvement of the adjacent artery in the process. There are additional risks that are incurred because of differences in the nature of the vessel. This means that greater care must be exerted in the selection of the balloon, in the placement of the balloon and in the selection of dilatation pressure to apply. The artery plays a vital function in providing perfusion to the distal extremity. Treatment of a lesion in the juxta-anastomotic access, either vein or graft (fistula or synthetic graft) should be classified as a venous angioplasty since the artery is not involved.

The exact reference point to use for judging stenosis of the anastomosis has not been standardized. Pressure gradients are of no value, there is always a major pressure drop across the anastomosis. The best reference point is comparison with the adjacent normal artery. If it is less than 50 % of the adjacent artery's diameter, a decision relative to stenosis should be made. In making this decision, one must take into consideration the balance between improving flow by increasing the size and promoting steal by reducing the resistance. Whatever criteria you use, it should be consistent and documented in the record. This applies to either a fistula or a graft.

Table 2 – Arterial Angioplasty Locations

Considered arterial angioplasty
- Arterial anastomosis
- Juxta-anastomotic artery
- Feeding artery at any point

Not considered arterial angioplasty
- Juxta-anastomotic access (vein or graft)

In the case of a thigh graft, if an arterial angioplasty is performed it would involve the femoral artery. There is a unique code for this vessel. The code for a femoral artery angioplasty is 35474. The descriptor for this code is - transluminal balloon angioplasty, femoral -popliteal.

Coding Tip: If this procedure is performed, the procedure note should document the degree of stenosis and the method by which it was judged.

Complication Management Codes

If a complication of the angioplasty treatment occurs, its management may also generate additional codes. The major complication of an angioplasty is vein rupture. In some instances this needs to be stented.

- Stent Placement

The code for stent placement is 37205. The descriptor for this code is – transcatheter placement of an intravascular stent(s), (non-coronary vessel), percutaneous; initial vessel. The code 75960 is used to report the radiological supervision and interpretation for this procedure. The descriptor for this code is - transcatheter placement of an intravascular stent, (non-coronary vessel), percutaneous and/or open, radiological supervision and interpretation, each vessel. If a second stent is placed, an additional code – 37206 would be warranted if it involves a second vessel. The descriptor for this code is - transcatheter placement of an intravascular stent(s), each additional vessel. In this instance both the 37205 and the 37206 codes would be used. The radiological supervision and interpretation code 75960 would be used twice, once with each placement code. The second usage should be accompanied by the -59 modifier to indicate that it was a separate procedure. If two stents are placed in the same vessel, only the initial code 37205 is warranted.

Coding Tip: it should be clearly documented in the report that there was "suboptimal results after the angioplasty was completed" and that then the decision was made to place the stent. In the case of stent placement to salvage a ruptured vessel, this too should be clearly documented.

Thrombectomy

All of the codes used in reporting an angioplasty would be appropriate for use in a thrombectomy because of the commonality of the procedures. There is actually only one unique code that would need to be added to the primary list.

- Thrombectomy

The code for thrombectomy is 36870. The descriptor for this code is – thrombectomy, percutaneous, fistula, autogenous or non-autogenous graft (includes mechanical thrombus extraction and intra-graft thrombolysis). This code is used to describe the removal of a thrombus from the access, graft or fistula, regardless of the method used. It includes both mechanical and pharmacological techniques. It does not include the other codes that are grouped under the overall combined procedure that is performed to declot a dialysis access.

- Arteriogram

The code for arteriogram is 75710. This code has already been described above in association with angioplasty codes. However, it may be more commonly indicated in connection with a thrombectomy. The fact that the graft is clotted may be a reasonable indication for study of the artery. Additionally, evaluation of the case for possible peripheral embolization post procedure may require an arteriogram. Since residual thrombi may be present even after the access has been opened and flow has been restored, selective placement of a catheter into the artery to accomplish the arteriogram may be necessary. This would warrant the use of the code 36215 (for a first order branch) or 36216 (for a second order branch). If one of these codes is used, then the cannulation code 36145 should not be used unless more than one cannulation was performed.

Coding Tip: If this procedure is coded, the procedure note should document the fact and report the findings individually .In addition, the medical indication for selective catheterization of the artery should be clearly stated.

Table 3 - Codes Used for Thrombectomy

Primary -

- 36145 – Cannulation
- 36145-59 – Second cannulation
- 75790 – Angiogram of graft or fistula
- 75710 - Arteriogram
- 36870 - Thrombectomy
- 35476 – Venous angioplasty
- 75978 – Supervision and interpretation of 35476
- 93040 – EKG monitoring

Secondary (occasional) -

- 35475 – Arterial angioplasty
- 75962 –Supervision and interpretation of 35475
- 75820-59 – Angiogram of draining veins (separate procedure)
- 75827-59 – Angiogram of superior vena cava (separate procedure)
- 75825-59 - Angiogram of inferior vena cava (separate procedure)
- 36011 - Selective catheterization of central draining veins
- 36010 - Selective catheterization of SVC or IVC
- 36215 - Selective catheterization first order branch (arterial - upper extremity)
- 36216 - Selective catheterization second order branch (arterial - upper extremity)
- 35245 – Selective catheterization of first order branch (arterial - lower extremity)
- 36120 - Cannulation of brachial artery

Complication Management Codes

If a complication of the thrombectomy treatment occurs, its management may also generate additional codes. In addition to the complications associated with angioplasty, the major complication of thrombectomy is peripheral arterial embolization. This may require an

embolectomy. This procedure will necessarily require an arteriogram (75710) and very likely selective catheter placement in addition to the actual embolectomy.

- Selective Catheterization of a 1st Order Branch (Artery)

The first step in the procedure for embolus removal generally involves the selective placement of a catheter into the artery. If this is a first order branch, the code for this is 36215. The descriptor for this code is – selective catheter placement, arterial system; each first order thoracic or brachiocephalic branch, within a vascular family. The brachial artery would be classified as a first order branch if that is the first artery entered. In the case of an access fed directly from the radial artery, then this vessel would be the first order branch. (See detailed discussion of 1st and 2nd order vessels on page 3 of this document under Cannulation)

- Selective Catheterization of a 2nd Order Branch (Artery)

If the procedure also required passing through the brachial artery and the selective catheterization of either the radial or ulnar artery, then this would necessitate a different code. The code would be 36216. The descriptor for this code is - selective catheter placement, arterial system; initial second order thoracic or brachiocephalic branch, within a vascular family. Both the radial and ulnar arteries would be considered second order branchs.

It is important to note that in coding for the selective catheterization of an artery, only the most selective portion of the procedure is coded. In other words, if the brachial artery is cannulated in the process of placing a catheter in the radial artery, only the radial artery cannulation is coded.

Coding Tip: If a selective catheterization is coded, the number of times the cannulation code 36145 is used should be decreased by one. The 36215 or 36316 code supersedes the 36145 code. If a second cannulation is performed (and it usually is in thrombectomy cases) then a single use of the 36145 code is warranted.

Table 4 - Codes for Embolectomy

- 75710 – Arteriogram
- 36215 - Selective catheterization first order branch (arterial - upper extremity)
- 36216 - Selective catheterization second order branch (arterial - upper extremity)
- 35245 – Selective catheterization of first order branch (arterial - lower extremity)
- 34101 – Embolectomy - brachial artery
- 34111 - Embolectomy - radial or ulnar artery

- Embolectomy of Brachial Artery

Emboli that occur as a complication of the thrombectomy procedure generally lodge at the bifurcation of the brachial artery and are therefore brachial artery emboli. The code for embolectomy of the brachial artery is 34101. The descriptor for this code is – embolectomy or thrombectomy, with or without catheter; axillary, brachial, innominate, subclavian artery, by arm incision. If either the radial or ulnar arteries were involved, the appropriate embolectomy code would be 34111. The descriptor for this code is - embolectomy or thrombectomy, with or without catheter; radial or ulnar artery, by arm incision.

If a decision was made to treat the embolus with lytic therapy two codes would be used. Firstly, 37201 would be used for the infusion procedure. The descriptor for this is - transcatheter therapy, infusion for thrombolysis other than coronary. This 3xxxx series code would be coupled with the code 75896. The descriptor for this 7xxxx code is - transcatheter therapy, infusion, any method (eg. thrombolysis other than coronary), radiological supervision and interpretation. Additionally, the fact that a lytic enzyme was administered would warrant the use of a "J" code for the medication. The code for tPA is J2997. This code is for a 1 mg dose. If more than 1 mg is used, the code would be used more than once (equal to the number of mg used).
Coding tip: There is a "J" code for every medication that might be used. Each of these codes designates the unit of medication that a single code represents. Each medication used can be coded.

Ultrasound Evaluation of Access

There are instances in which the evaluation of the vascular access using duplex ultrasound is medically indicated. The code for this study is 93990. The descriptor for this code is – duplex scan of hemodialysis access (including arterial inflow, body of access and venous outflow. It is important to note that this includes evaluation of the artery and vein associated with the access. As usual, clear documentation of medical indication and image documentation of the study performed is important.

Vascular Mapping

Vascular mapping should be considered in the evaluation of a patient for the placement of a dialysis vascular access. The goal here is to identify venous anatomy that would be conducive to the creation of an arteriovenous fistula. How this procedure is coded depends upon the patient's situation related to previous access placement.

There is a temporary code, G0365, which should be used if the patient has not had a previous fistula or graft. The descriptor for this code is - mapping of vessel for hemodialysis access (services for preoperative vessel mapping prior to creation of hemodialysis access using an autogenous hemodialysis conduit, including arterial inflow and venous outflow). Imaging for this code can be done by any technique. It should be noted that the descriptor for this code specifies that both the venous and arterial anatomy must be evaluated. If only the veins are imaged, a - 52 modifier should be attached to the code to indicate a reduced level of service. The G0365 code is for one extremity only, if both upper extremities are examined the code should be listed a second time with a – 59 modifier to indicate a separate distinct service. It is important to note that the use of this code is restricted to a patient that has not had a prior dialysis access graft or fistula. Additionally, it can only be used two times a year.

Vascular mapping may be done using ultrasound, angiography or a combination of both. The code G0365 covers all of these techniques. However, this is a radiological code; it does not preclude the use of surgical codes that might be warranted based upon the type of procedure performed. If, for example, the vein mapping portion of the study was performed by angiography, the code 36005 (cannulation of vein and injection of contrast) may be applied.

Coding Tip: Justification for the use of the G0365 code is made more obvious if it is clearly stated in the case documentation that the patient has not had a prior access graft or fistula.

In the case of a patient who has had a prior dialysis access graft or fistula, coding for vascular mapping involves the use of a group of codes. If done radiographically, this procedure would involve the use of codes for cannulation of a vein, the injection of contrast and the performance of a venogram. If done by ultrasound, the codes would be those for ultrasound of the artery and vein of the extremity. If a combination of both is utilized for the evaluation then an appropriate combination of codes would be warranted. The codes that should be used are as follows:

Table 5 - Vascular Mapping - Radiographic

- 36005 - Cannulation of vein and injection of contrast
- 36005-59- Cannulation/injection of second arm
- 75820 - Venogram of single arm
- 75822 - Venogram of both arms
- 75827 - Venogram of SVC

Radiographic Study

- ### Cannulation and Injection of Contrast

The code for this procedure is 36005. The descriptor for this code is - injection procedure for contrast venography (including introduction of needle or intracatheter). If the study is bilateral, then the code would be used a second time with the -59 modifier. This code should not be used at any time when a fistula or graft is cannulated. Its use is restricted only to vein cannulation as with the performance of a venogram. If both extremities are examined, then 36005 should be used a second time with a -59 modifier.

Coding Tip: Document the fact that more than one site is involved, clearly document each site. Modifier 59 will need to be attached to indicate that this is a separate site.

- ### Venogram

There are two possible codes that could be used. The choice depends upon whether the venous mapping involves both arms or only one. The code for a single arm is 75820. The descriptor for this is – venography, extremity, unilateral, radiological supervision and interpretation. This code includes all of the veins up through the superior vena cava. If the study is bilateral then the code 75822 should be used. The descriptor for this code is - venography, extremity, bilateral, radiological supervision and interpretation

- ### Superior Vena Cava Angiogram

The code for study of the superior vena cava is 75827. The descriptor for this is - venography caval, superior, with serialography, radiological supervision and interpretation. It should be noted that according to the descriptor, the 75827 code is for the superior vena cava and not for central veins in general. If the 75827 code is used, the medical indication for the procedure should be clearly stated.

Ultrasound Study

- Ultrasonic Study of Artery

The codes for performic ultrasound studies on the artery are 93930 and 93931. The choice of appropriate code depends on whether it is a unilateral or bilateral study. The code 93930 is for the bilateral study. Its descriptor states – duplex scan of the upper extremity arteries or arterial bypass grafts; complete bilateral study. The code for a unilateral study is – 93931. Its descriptor states – duplex scan of the upper extremity arteries or arterial bypass grafts; unilateral or limited study. These codes would include all ultrasound evaluation performed on the artery or arteries during the course of the study.

Table 6 - Vascular Mapping - Ultrasound

- 93930 – Ultrasound of artery, bilateral
- 93931 – Ultrasound of artery, unilateral
- 93970 – Ultrasound of vein, bilateral
- 93731 – Ultrasound of vein, unilateral

- Ultrasonic Study of Vein

The codes for performic ultrasound studies on the vein are 93970 and 93971. The choice of appropriate code depends on whether it is a unilateral or bilateral study. The code 93970 is for the bilateral study. Its descriptor states – duplex scan of the upper extremity arteries including compression and other maneuvers; complete bilateral study. The code for a unilateral study is – 93971. Its descriptor states – duplex scan of the upper extremity arteries including compression and other maneuvers; unilateral or limited study. These codes would include all ultrasound evaluation performed on the veins during the course of the study.

It is important to note that if both an ultrasound study and an angiogram are done, the ultrasound study should not be coded. For example, if one does an ultrasound study of the veins of the arm and then follows this up with an angiogram of the veins, only the angiogram should be coded. If an ultrasound study of the arteries is done and then an angiogram of the veins only is done, the ultrasound study of the arteries can be coded since it was not duplicated.

Arteriovenous Fistula - Treatment of Accessory Vein

A number of the basic codes already discussed would be used here. These include 36145 – cannulation and injection of contrast, 75790 – angiogram of the fistula, and 93040 – EKG monitoring. The actual technique used to obliterate the vein would be unique to the procedure.

- Cannulation

The non-selective cannulation code 36145, specific for use with a fistula, would be appropriate for use here but would be superseded by the selective cannulation code used for the catheterization of the accessory vein as discussed below. The 36145 code would be listed only if more than one cannulation was performed during the course of the procedure. In this instance a -59 modifier would be used.

- Vein Ligation

The code used for this procedure is 37607. The descriptor for this code is – ligation or banding of angioaccess arteriovenous fistula. We generally use this code only once even though more than one vessel may be ligated. This would be used regardless of the method of ligation.

Table 7 - Accessory Vein Obliteration

Common codes –
- 36145 – Cannulation of fistula
- 75790 – Angiogram of fistula
- 93040 – EKG monitoring (commercial insurance use)

Ligation technique –
- 37607 –Ligation

Coil insertion –
- 36011 – Selective cannulation of 1st order vein
- 36012 - Selective cannulation of 2nd order vein
- 37204 – Placement of coil
- 75894 – Supervision and interpretation of 37204
- 75898 – Post coil angiogram via catheter

- Insertion of Coil

Several codes are generated by this procedure. Firstly, the accessory vein must be selectively catheterized. Go back and review the material on Cannulation on page 3 of this document. The code for catheterization of a 1st order venous branch is 36011. The descriptor for this code is – introduction of needle or intracatheter, vein; first order branch. The code for catheterization of a 2nd order venous branch is 36012. The descriptor for this code is – introduction of needle or intracatheter, vein; second order, or more selective, branch. Of course the non-selective cannulation code 36145 should be dropped when the selective code is applied.

Placement of the coil requires the code 37204. The descriptor for this code is – transcatheter occlusion or embolization, percutaneous, any method, non-central nervous system, non-head or neck. Code 75894 describes the radiological supervision and interpretation for the coil placement code. The descriptor for this code is – transcatheter therapy, embolization, any method, radiological supervision and interpretation. In practice this pair of codes is used only once even though more than one coil may be placed.

It is possible to code for a follow-up angiogram following the placement of an embolization coil. The code for this is 75898. The descriptor for this code is angiography through existing catheter for follow-up study for transcatheter therapy, embolization or infusion. As the descriptor indicates this angiogram is one where doing it through the catheter that is in place (for insertion of the coil) is required.

Coding tip - Clearly document the fact that a vein was selectively catheterized to justify the use of the selective catheterization code for this procedure. Also if you use the post coil angiogram code, document clearly that it was performed through the catheter that was in place.

Insertion of Tunneled Catheter

As with the other procedures already discussed, the insertion of a tunneled dialysis catheter generates a group of codes.

Primary Codes

There are several primary codes that are used in every case. Additionally, there are secondary codes that may occasionally be used, if the need arises.

Ultrasonic Guidance

The code for ultrasound guided cannulation when inserting a tunneled catheter is 76937. The descriptor for this code is - ultrasound guidance for vascular access requiring ultrasound evaluation of potential access sites, documentation of selected vessel patency, concurrent realtime ultrasound visualization of vascular needle entry, with permanent recording and reporting. As indicated in the descriptor, use of this code requires that an image be made and made part of the permanent record. This code should not be used in cases where the vein is only examined by ultrasound and the cannulation is not actually ultrasound guided (real-time).

Coding tip: In order to use this code, a permanent record of the image generated must be generated.

- Fluoroscopic Guidance

The code for fluoroscopic guidance used in connection with the placement of a central venous device is 75998. The descriptor for this code is - fluoroscopic guidance for central venous 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). This code also includes any venogram that might be performed at the time of the catheter placement.

Coding note: This code includes the injection of radiocontrast, therefore, codes for angiography of the central veins or superior vena cava should not be used with it unless they qualify as a separate procedure. If this is the case, then the code should be used with a -59 modifier. This applies to all catheter related procedures where fluoroscopic guidance is used.

- Catheter Insertion

The code used for the actual catheter insertion is 36558. The descriptor for this code is – insertion of tunneled centrally inserted central venous catheter, without subcutaneous port or pump. Over 5 years of age. If two structurally separate catheters are inserted into two separate venous sites, the appropriate code would be 36565. The descriptor for this code is - insertion of tunneled centrally inserted central venous access device, requiring two catheters via two separate venous access sites, without subcutaneous port or pump. The descriptor indicates that if this later code is to be

used, the two catheters must be inserted via separate access sites. A dual catheter inserted through a single venous access site would not qualify.

Table 8 – Insertion of Tunneled Dialysis Catheter

Primary codes –

- 76937 - Ultrasound guidance
- 75998– Fluoroscopy guidance
- 36558 – Catheter insertion
- 36565 - Dual catheter insertion via separate sites
- 93040 – EKG monitoring

Secondary codes –

- 35476 – Venous angioplasty
- 75978 – Supervision and interpretation for 35476

Coding tip - Clearly document the fact that two catheters were inserted at separate venous access sites. This refers to dual catheters such as the Tesio catheter. If the wrong size catheter was inserted, removed and replaced with the correct size, it should still be coded as a single catheter.

Secondary Codes

There are times when the central veins are stenotic and require angioplasty before the tunneled catheter can be inserted. These additional secondary procedures generate additional codes. These are the same codes that were discussed above. They will be listed again here in order to point out unique aspects.

- Venous Angioplasty

The code for venous angioplasty is 35476. The descriptor for this code is – transluminal balloon angioplasty, venous. Code 75978 describes the radiological supervision and interpretation. The descriptor for this latter code is transluminal balloon angioplasty, venous, radiological supervision and interpretation. At times when a tunneled catheter is being placed, significant venous stenosis is encountered and complicates the insertion. If a significant stenosis is present, then it should be dilated. In this instance the appropriate codes would need to be applied.

Coding tip - If a venous angioplasty is performed, clearly document the vessel involved and the degree of stenosis as you would any other time this code is applied.

- Unusual circumstances

In an occasional instance, after cannulation of the vein for the placement of a tunneled catheter difficulty is encountered in passing the guidewire. If, after examining the vein angiographically, it is decided to abandon that site and move to the opposite side, additional codes may be warranted. The use of the code 75998 should be used for the site that is actually used to insert the catheter. This code also includes (bundles) any angiographic studies that are done in connection with the placement of the catheter. However, the original attempt represents a separate venous access site and therefore meets the definition of a separate procedure. In this instances a non-selective

cannulation code and a code for an angiogram is warranted. Neither of the two non-selective cannulation codes that have been used with a peripheral access is appropriate here. The code 36145 is used for grafts and fistulas; the code 36005 is specific for a vein cannulated for the performance of an extremity venogram. Unfortunately, there is no code specifically for this contingency. The code 36000 is the best choice for use here. The descriptor for this code is - introduction of needle or intracatheter, vein. Additionally, the codes for an angiogram of the central veins 75820 and superior vena cava 75827 would be warranted for use with a -59 modifier if these vessels were imaged.

If it was necessary to use a catheter to make the radiocontrast injection in this process, then the code for selective catheterization of the superior vena cava, 36010 would be warranted. Since this is a selective catheterization code, it would supersede the non-selective cannulation code and 36000 would not be used.

Evaluation of Existing Tunneled Catheter

There are instances in which the evaluation of an existing tunneled catheter using fluoroscopy with radiocontrast injection is medically indicated. The code for this is 36598. The descriptor for this code states - contrast injection(s) for radiologic evaluation of existing central venous access device, including fluoroscopy, image documentation and report. It is important to note that this requires image documentation. There are restrictions of the use of this code. It can not be used with 36596 - mechanical removal of intraluminal (intracatheter) obstructive material from a central venous device through device lumen. It can also not be used with 75902 - mechanical removal of intraluminal (intracatheter) obstructive material from a central venous device through device lumen. Additionally, this code should not be use for evaluation of catheter prior to exchange, insertion or removal.

Tunneled Catheter Repair

Some catheters are made with a replaceable hub. When it becomes damaged, repair of the hub may allow for the salvage of the catheter. The code for catheter repair is 36575. The descriptor for the code is - repair of tunneled or non-tunneled central venous access catheter, without subcutaneous port or pump.

Tunneled Catheter Removal

With most catheters this is a rather simple procedure providing the catheter was properly place. Catheter removal is performed under two circumstances. Firstly, the catheter is no longer needed; it is being removed, not to be immediately replaced. Secondly, its need is continuing, but it must be exchanged with a new catheter. The coding for the simple removal would be as follows.

- Catheter Removal

The code for catheter removal is 36589. The descriptor for this code is – removal of implantable venous access device and/or subcutaneous reservoir. If the catheter is to be replaced then the use of this removal code would depend on whether it is to be replaced at the same venous entry site or a new one as described below.

Table 9 - Catheter Exchange - Same Venous Access Site

Primary codes –

- 75998– Fluoroscopy
- 36581 – Catheter exchange
- 93040 – EKG monitoring

Secondary codes –

- 35476 – Venous angioplasty
- 75978 – Supervision and interpretation for 35476
- 36595 - Removal of fibrin sheath (Only if a separate venous access is used)
- 75901 - Supervision and interpretation for 36595

Tunneled Catheter Exchange (Replacement)

- Same Venous Access Site

If the old catheter is removed and replaced at the same site such as replacement over a guidewire, it would be coded as a catheter exchange. The code for this is 36581. The descriptor for this code is - replacement, complete, of a tunneled centrally inserted central venous catheter, without subcutaneous port or pump through the same venous access.

- New Venous Access Site

If the new catheter is placed at a new venous access site after the old one is removed then two codes would be used. The catheter removal code - 36589 would be appropriate for the removal and the catheter insertion code - 36558 would be used for the new catheter placement.

Coding tip - If the two codes are used for a catheter replacement, it is important to document the fact that the new catheter was placed with a new venous access site and not through the old site over a guidewire.

- Fibrin sheath removal

A fibrin sheath forms when a tunneled catheter is in place for even a short period of time. This term is actually a misnomer; the sheath is generally composed of fibrous connective tissue if it is more than a few weeks old. It begins as fibrin, but becomes organized as it progresses down the shaft of the catheter. When a catheter is removed to be replaced with a new one, it is important that one always check for the presence of a fibrin sheath. If a sheath is detected it should be removed prior to insertion of the new catheter. If the new catheter is inserted into an old pre-existing fibrin sheath, an early recurrence of catheter dysfunction can be anticipated. There are two approaches to the removal of a fibrin sheath, through the femoral vein (stripping procedure) and through the venous entry site of the catheter in question. A code has been created for fibrin sheath removal from the femoral approach, this code is 36595. The descriptor for this code is - mechanical removal of pericatheter obstructive material (e.g., fibrin sheath) from central venous device via a separate

venous access. The code 75901 is the radiological supervision and interpretation code that goes with 36595. The descriptor for this code is - mechanical removal of pericatheter obstructive material (e.g., fibrin sheath) from central venous device via a separate venous access, radiologic supervision and interpretation. Unfortunately, there is no specific code available for removal of a fibrin sheath through the venous entry site, it does not seem appropriate to use the 36595 code because it specifically mandates that the procedure be done through a "separate venous access.".

A venous stenosis is frequently associated with the fibrin sheath at the venous entry site. This may be related to the fact that the sheath is actually fibro-epithelial and starts at the venotomy site. Additionally, the sheath itself represents intraluminal obstructing material when a catheter is being exchanged at the same site. In order to avoid the risk of this anomaly interfering with the function of the newly placed catheter, it should be removed. Dilatation with an angioplasty balloon is a very effective maneuver in eradicating the sheath as well as any associated stenosis. Therefore the venous angioplasty procedure appears to be warranted when a fibrin sheath is removed during the course of a tunneled catheter exchange if it is done through the venous entry site rather than through a separate venous access.

The code for venous angioplasty is 35476. The descriptor for this code is – transluminal balloon angioplasty, venous. Code 75978 describes the radiological supervision and interpretation. The descriptor for this latter code is transluminal balloon angioplasty, venous, radiological supervision and interpretation. Since this procedure is less than that when a routine venous angioplasty procedure is performed, the modifier – 52 should be attached. The use of this modifier indicates that this is a reduced service (in comparison to the usual one).

Coding tip - The presence of the fibrin sheath, the vessel affected and the degree of any stenosis detected should be described and documented.

- Intraluminal Removal of Catheter Thrombus

If a thrombosed catheter is treated mechanically with an endoluminal brush or guidewire to remove a thrombus and restore its function the use of the code 36596 is warranted. The descriptor for this code is - mechanical removal of intraluminal (intracatheter) obstructive material from a central venous device through device lumen. If this is done under fluoroscopic guidance there is a supervision and interpretation code to accompany it. This code is 75902. The descriptor for this code is - mechanical removal of intraluminal (intracatheter) obstructive material from a central venous device through device lumen, radiologic supervision and interpretation.

Non-tunneled Catheter Procedures

There are unique codes, separate from those that are used for tunneled catheters that are designated for use with non-tunneled devices. These are as follows:

For non-tunneled catheter insertion the code is 36556. The descriptor for this code is- insertion of non-tunneled centrally inserted central venous catheter. Over 5 years of age.

For non-tunneled catheter repair the code is 36575. The descriptor for this code is - repair of tunneled or non-tunneled central venous access catheter, without subcutaneous port or pump.

For non-tunneled catheter exchange the code is 36580. The descriptor for this code is - replacement, complete, of a non-tunneled centrally inserted central venous catheter, without subcutaneous port or pump through the same venous access

For non-tunneled catheter removal there is no code available. The CPT Coding Manual clearly states that the codes for removal of tunneled catheters should not be used.

In addition to these specific codes for procedures involving non-tunneled catheters, other ancillary codes such as those for ultrasound and fluoroscopic guidance as well as monitoring may be appropriately used.

Lifesite Subcutaneous Port Procedures

There are unique codes, separate from those that are used for tunneled catheters that are designated for use with subcutaneous ports such as the Lifesite port. These are as follows:

For the insertion of a Lifesite port the code is 36561. The descriptor for this code is - insertion of tunneled centrally inserted central venous access device, with subcutaneous port, over 5 years of age.

For the insertion of two Lifesite ports the code is 36566. The descriptor for this code is - Insertion of tunneled centrally inserted central venous access device, requiring two catheters via two separate venous access sites, with subcutaneous port(s).

For the replacement of a catheter associated with a Lifesite port the code is 36578. The descriptor for this code is - replacement, catheter only, of central venous access device, with subcutaneous port or pump, through same venous access

For the replacement of the complete Lifesite port the code is 36582. The descriptor for this code is - replacement, complete, of a centrally inserted central venous access device, with subcutaneous port.

For the removal of a Lifesite port the code is 36590. The descriptor for this code is - Removal of tunneled central venous catheter, with subcutaneous port or pump.

As with non-tunneled catheters, in addition to these specific codes, other ancillary codes such as those for ultrasound and fluoroscopic guidance as well as monitoring may be appropriately used.

Peritoneal Catheter Procedures

Peritoneal Dialysis Catheter Placement

There are several CPT codes that are warranted when a peritoneal catheter is inserted.

- Insertion of Peritoneal Dialysis Catheter

The code for insertion of the peritoneal dialysis catheter is 49421. The descriptor for this code is – insertion of intraperitoneal cannula or catheter for drainage or dialysis; permanent.

- Peritoneoscopy

The code for performing peritoneoscopy is 49320. The descriptor for this code is – laparoscopy, abdomen, peritoneum, and omentum, diagnostic, with or without collection of specimen(s) by brushing or washing. The CPT manual directs that this code should be also used for peritoneoscopy.

- Injection of Air Into Peritoneal Cavity

The appropriate code for the injection of air into the peritoneal cavity is 49400. The descriptor for this code is – the injection of air or contrast into peritoneal cavity (separate procedure).

Table 10 – Peritoneal Catheter Insertion

49421 – Catheter insertion
49320 – Peritoneoscopy
49400 – Injection of air or contrast
74190 – S&I code for peritoneogram
76705 – Ultrasound evaluation of abdomen

- Peritoneogram

If contrast is injected to obtain a peritoneogram this would warrant a second use of the 49400 code with a -59 modifier (49400-59) to indicate that it is a separate procedure. Additionally, the radiological supervision and interpretation code 74190 for the peritoneogram would also be appropriate..

Coding tip: The use of the code 74190 is restricted to instances in which a peritoneogram is obtained. If only air is injected to aid in the placement of the catheter and there is no imaging, then this code would not be appropriate. If this is done the medical indication for the peritoneogram should be clearly stated.

- Ultrasound Evaluation Prior to Trocar Insertion

Some interventionalists have found that it is very beneficial to evaluate the abdomen using ultrasound prior to insertion of the trocar in order to avoid damage to the epigastric artery and as a aid in avoiding areas of adhesions. There is no specific code for this examination; however, the code 76705 appears to be the most appropriate. The descriptor for this code is – ultrasound, abdominal B-scan and/or real time with image documentation; limited. It should be noted that this code does require image documentation. The notes that accompany this code also state that a written report of the examination should be placed in the patient's record.

Coding tip: Not all carriers recognize this application of this code. Before use it would be appropriate to check with your local carrier.

Peritoneal Dialysis Catheter Removal

There is only one CPT code that is appropriate when a peritoneal catheter is removed.

- Removal of Peritoneal Catheter

The code for removal of the peritoneal dialysis catheter is 49422. The descriptor for this code is – removal of permanent intraperitoneal cannula or catheter.

- Repair of Ventral Hernia

At times when a peritoneal dialysis catheter is removed, an incisional or ventral hernia is apparent. If this is repaired, then it is appropriate to code for the procedure. The code for repair of a ventral hernia is 49560. The descriptor for this code is – repair initial incisional or ventral hernia; reducible.

Note: although not a coding issue, there may be a privileging issue in the medical facility in which this hernia repair procedure is being performed.

Peritoneal Dialysis Catheter Revision

There are times when a peritoneal dialysis catheter is dysfunctional. Evaluation reveals that it can be salvaged by repositioning. This procedure will generate several codes depending upon the specifics of what is actually done. Unfortunately, there is no specific code for repositioning a peritoneal catheter. This being the case, the code 49999 is warranted. The descriptor for this code is – unlisted procedure, abdomen, peritoneum and omentum. In using this code, it is important to document and describe the details of what was actually done. Additional codes such as the code for injection of air or contrast – 49400 may also be appropriate. If imaging is performed (peritoneogram), then the S&I code 74190 is warranted.

Modifiers

There are several modifiers that can and at times should be used in coding of the procedures performed by interventional nephrologists. It is important to become familiar with this and use them properly. One should also keep in mind that when a modifier is used, extra documentation is generally advisable.

Note: It is important to check with your local intermediary on unique uses of modifiers. It is not infrequent for there to be variations that are unique to an individual locale. They will require that their interpretation be followed.

Failed Procedures

What if you attempt a procedure and can not do it? How should it be properly coded? These are important questions. Basically, you should always code for what was actually accomplished. Beyond this, you have three choices.

- Firstly, you can choose to code only what was completed and omit any codes for what was attempted and not accomplished. For example if you started out to do an angioplasty, but could not pass a guidewire and decided to stop after the initial angiogram, you could simply code it as a cannulation and a venogram using the 36145 and 75790 codes. This would be a reasonable choice since that is all that was actually accomplished.

- Secondly, you can use a modifier to indicate that the basic service was altered. The modifier, -52, could be used to signify that the basic coded service has been reduced. This is designed to be used in circumstances where a service or procedure is partially reduced or eliminated. The use of this modifier allows one to report reduced services without disturbing the identification of the basic service. For example, an angioplasty is attempted, but after multiple tries with several types of guiding catheters and different guidewires, you can not get the guidewire across the lesion. In this instance the treatment can not be completed. A reasonable choice would be to code the procedure as 35476-52 and 75978-52 to indicate a reduced level of service. The other codes for procedures or services that were completed would be coded normally. Your report will be individually reviewed at CMS to determine a payment level. This will be a percentage of the basic fee. For this reason, documentation becomes very important to form a basis for this determination.

- Thirdly, you can use a different modifier to indicate that the procedure was discontinued. This modifier is -53. The use of this designation indicates that the procedure was started but discontinued. It could be used as an alternative to the -52 designation in the example quoted above.

Coding tip - If you attempt an angioplasty, cannot complete it and choose to use either the -52 or -53 modifier, it is important that you provide extra documentation to describe what you actually did do. This should be stated in terms of time and supplies. This will enable the reviewer to determine a reimbursement level appropriately.

Table 11 - Modifiers

22 - Unusual Procedural Services - When the service(s) provided is greater than that usually required for the listed procedure.
52 - Reduced Services - A service or procedure is partially reduced or eliminated
53 - Discontinued Procedure - A surgical or diagnostic procedure is terminated, it was started but discontinued
59 - Distinct Procedural Service - A procedure or service was distinct or independent from other services performed on the same day. This may represent a different session or patient encounter, different procedure or surgery, different site or organ system, separate incision/excision, separate lesion, or separate injury not ordinarily encountered or performed on the same day by the same physician.
76 - Repeat Procedure by Same Physician - A procedure or service needed to be repeated subsequent to the original procedure or service during the global period.
77 - Repeat Procedure by Another Physician - A procedure or service performed by another physician needed to be repeated during the global period.
78 - Related Procedure - A related procedure was performed during the global period that required the use of the procedure (operating) room.
79 - Unrelated Procedure by Same Physician - A procedure or service performed during the global period that is unrelated to the original procedure by the same physician.

Complex or Complicated Procedure

There are times when one encounters an extremely complicated case, one that requires considerable more time than is normal. Often additional supplies are required as well. The modifier - 22 can be attached to the code for the procedure to designate this higher level of service. For example, a venous angioplasty is performed and completed, but it was very complicated. Considerable extra time was required to pass the guidewire or perhaps a guiding catheter and an additional guidewire was necessary to accomplish the task. The regular code for venous angioplasty with the - 22 modifier would be appropriate, i.e., 35476-22. This should always be accompanied by extra documentation in the procedure note.

Coding tip - If you choose to use the -22 modifier, it is important that you provide extra documentation in the procedure note to describe what you did that was unusual and more than is customarily required. The reason for this requirement should also be detailed. This should be stated in terms of time and supplies. This will enable the reviewer to determine a reimbursement level appropriately.

Separate Procedural Service

Under certain circumstances you may need to indicate that a procedure or service was distinct or independent from other services performed on the same day. Modifier -59 is used to identify procedures or services that are not normally reported together, but are appropriate under the circumstances (medically indicated). This may represent a different session or patient encounter, a different procedure, different site, or separate lesion. For example, if it is necessary to cannulate the vascular access a second time in order to complete the task at hand, this modifier should be attached to the cannulation code, e.g., 36145-59. There are other examples of the use of the -59 modifier listed in the discussion of specific procedure codes above.

There are times when it is necessary for the patient to dialyze the same day as the performance of an interventional procedure. In this instance the - 59 modifier should be attached to the dialysis code. Even if it is not the same physician, but a member of his/her group, the modifier should be used.

Coding tip – The use of the -59 modifier is frequently abused. When this is applied to a case, one should be very careful to clearly document the fact that this is a separate and distinct procedure in addition to the medical necessity for doing the procedure.

Subsequent Procedure Performed During Global Period

There are times when it becomes necessary to perform an identical or similar procedure on a patient subsequent to a procedure with a global period that has not yet expired. There are several modifiers that have been used to report and code this situation. The terminology attached to these modifiers appears to be surgical. When dealing with surgical cases, the appropriate choice of a modifier may be obvious. However, in the case of endovascular procedures it becomes somewhat confusing. There are patients who experience a thrombosed graft within a relatively short period after a previous thrombectomy. In one instance this may be due to recurrent hypotension and totally unrelated to the previous procedure; however, it is not totally clear from the descriptors whether this would be classified as a repeat procedure or an unrelated procedure. The subsequent thrombotic episode might have been related to an elastic lesion that recurred following the initial

angioplasty. It is not apparent from the descriptors for the modifiers as to whether this would be classified as a repeat procedure or a related procedure.

Table 12 - Procedures With A Global Period

Code	Descriptor	Global Period (Days)
36870	Thrombectomy	90
37607	Ligation of accessory vein	90
34101	Embolectomy - brachial artery	90
34111	Embolectomy - radial or ulnar artery	90
36558	Tunneled catheter placement (single)	10
36565	Tunneled catheter placement (double)	10
36581	Tunneled catheter exchange	10
36589	Tunneled catheter removal	10
36561	Insertion of subcutaneous port (Lifesite)	10
36578	Replacement of catheter on port (Lifesite)	10
36582	Replacement of complete port (Lifesite)	10
36590	Removal of port (Lifesite)	10
49320	Peritoneoscopy	10
49421	Insertion of peritoneal catheter	90
49422	Removal of peritoneal catheter	10
49560	Repair of ventral hernia	90

In many instances, the accepted coding choice appears to vary with the local carrier. It is suggested that your choice of modifier be based upon a discussion with your local carrier and that their definitions be used. It is important that your coding practice be standardized and that the required documentation is defined and supplied.

Table 10 - Examples of Coding of Subsequent Procedures During Global Period

Situation	Modifier
Patient with recurrent thrombosis due to hypotension	
Same physician	76
Different physician	77
Patient with recurrent venous stenosis due to an elastic lesion	78
Patient requiring a new catheter catheter dysfunction due to a kinked catheter	78
Patient requiring tunneled catheter, graft closed for steal had a thrombectomy 30 days previous	79

The choices of modifier to attach to the basic identifying code when a subsequent procedure is performed during the global period include 76, 77, 78 and 79. The modifier - 76 is used to indicate a repeat procedure by the same physician and modifier - 77 is use to indicate a repeat procedure performed by another physician. The terminology used in the descriptions for these codes suggest that they would be the best choice if it was apparent that the subsequent procedure was totally unrelated to the previous one. The modifier - 78 has a descriptor that suggests its use when the subsequent procedure was related to the previous one. Based upon its description, use of the modifier - 79 seems to be warranted in cases where the subsequent procedure is completely different from the previous one, neither repeated nor related.

Documentation

There is an old adage – "If it's not documented, it didn't happen!" This should definitely be considered true when coding procedures that were performed in the interventional lab. If you are going to code for the procedure, be sure that it is documented adequately. There are several types of documentation. Firstly, there is radiographic documentation. This is the best, it is visual and objective; anyone can see it. Secondly, your procedure note is very important. If something was done that justifies a code, then it should be mentioned and/or discussed in the procedure note. Thirdly, the nurse's note, while not a detailed record of the step-by-step aspects of the procedure, should reflect what was actually done. Accurate coding is very important, but don't neglect the documentation.

Although not required, it may be prudent to embed CPT codes in your narrative procedure report. This helps to assure you that you have done adequate documentation for each code used. It also assures that anyone of any level of sophistication who might review your report will immediately see the documentary basis for the codes that you have used. For example:

"A second site, immediately below the venous anastomosis was anesthetized and cannulated (36145-59) with an introducer needle. A guidewire was passed and a 7 French sheath was inserted. A 5 French straight catheter was passed over the guidewire through the sheath and the brachial artery was selectively catheterized (36215). Using the catheter, radiocontrast was injected to perform a brachial arteriogram (75710). The artery was selectively catheterized because of the presence of thrombi within the graft and the risk of emboli. The arteriogram was medically indicated because of documented poor flow within the graft."

Appendix A
Illustrative Cases

Index of Cases

Case 1 (page 35) – Case with uncomplicated angioplasty. Demonstrates coding for a straight forward, uncomplicated case.

Case 2 (page 36) – Case of angioplasty with three separate lesions. Demonstrates coding instance where three separate angioplasties would be coded.

Case 3 (page 37) – Case with poor flow in which both a venous and an arterial angioplasty was performed. Demonstrate coding for venous and arterial angioplasty as well as an arteriogram. Required two separate cannulations.

Case 4 (page 38) – Case of a fistula with poor flow. Demonstrates coding of two separate angioplasties.

Case 5 (page 39) – Fistula case with poor flow and recirculation. Case had two separate lesions, but required coding as a single angioplasty. Demonstrates a situation where case was very difficult and prolonged warranting the use of a 22 modifier.

Case 6 (page 40) – Fistula case with poor flow and recirculation. Demonstrates coding of cannulation of brachial artery, arteriogram and selective catheterization of the radial artery. Both a venous and an arterial angioplasty were performed.

Case 7 (page 41) – Case of a graft with a severe stenotic lesion that could not be addressed. The case was discontinued after a simple angiogram.

Case 8 (page 42) – Case of a graft with two stenotic lesions. Angioplasty was performed and resulted in a complication. Demonstrates coding of two separate angioplasties and the placement of an endovascular stent.

Case 9 (page 43) – A case of early fistula failure. Demonstrates coding of both arterial and venous angioplasty used to treat a juxta-anastomotic stenosis. Also demonstrates the placement of an embolization coil to treat an accessory vein.

Case 10 (page 44) – A case of a thrombosed graft. Demonstrates the coding used for an uncomplicated thrombectomy. A single venous angioplasty was also done.

Case 11 (page 45) – Case of a thrombosed graft with inflow problems. Demonstrates coding for a standard thrombectomy with the addition of an arterial angioplasty.

Case 12 (page 46) – Case of a thrombosed graft in a patient with chronic hypotension. Demonstrates coding of a repeat thrombectomy performed during the global period.

Case 13 (page 47) – Case of a thrombosed graft in a patient with multiple prior central venous catheters. Demonstrates coding of super vena cava angiogram as a separate procedure with a 59

modifier, selective catheterization of the superior vena cava and the performance of two separate venous angioplasties.

Case 14 (page 49) – Case of a thrombosed graft with failed thrombectomy. Demonstrates the coding of a failed procedure with a 52 modifier. Also demonstrates coding of two separate venous angioplasties.

Case 15 (page 50) – Case of a thrombectomy of a graft complicated by an arterial embolus. Demonstrates coding of selective catheterization of brachial artery and an embolectomy of the brachial artery.

Case 16 (page 51) - Case of a tunneled catheter insertion. Demonstrates the coding of an uncomplicated case. Both fluoroscopic and ultrasound guidance were used and coded.

Case 17 (page 52) – Case of a tunneled catheter insertion complicated by venous stenosis. Demonstrates coding of a standard catheter insertion with a venous stenosis requiring central venous angioplasty. Both fluoroscopic and ultrasound guidance were used and coded.

Case 18 (page 53) – Case that demonstrates the coding of a straight forward catheter removal.

Case 19 (page 54) - A straight forward case of tunneled catheter exchange. Demonstrates the coding used for this type of case.

Case 20 (page 55) – A case of catheter dysfunction requiring a catheter exchange. A fibrin sheath was present. Demonstrates the coding of a tunneled catheter exchange along with the removal of a fibrin sheath using an angioplasty balloon.

Case 21 (page 56) – A case of catheter dysfunction requiring a catheter exchange. A fibrin sheath was present. Demonstrates the coding of a tunneled catheter exchange along with the removal of a fibrin sheath using an angioplasty balloon.

Case 22 (page 57) – A case demonstrating the coding of a venous mapping involving one arm in which the G0365 code for vessel mapping was warranted.

Case 23 (page 58) – A case demonstrating the coding of a venous mapping involving one arm in which the G0365 code for vessel mapping was not warranted.

Case 1

The patient was referred to the facility because of low flow in their graft. The patient had a loop graft in the left forearm. It had been in place for 6 months. There was no history of previous central venous catheters. The patient had not had a previous episode of thrombosis. There was no evidence of swelling of the arm, neck or chest. No venous collaterals were evident on the chest.

Procedure – The graft was cannulated on the venous side just above the apex of the loop. A sheath was inserted. An angiogram was performed to visualize the graft, draining veins (peripheral and central) and the superior vena cava. Visualization was optimal. A stenotic lesion of 70% was found at the venous anastomosis. No other lesions were seen. The patient was sedated. EKG monitoring was performed. A guidewire was passed without difficulty. The lesion was dilated with an 8 X 4 angioplasty balloon with complete resolution. A repeat venogram was performed which showed no residual stenosis. Flow in the graft was graded as excellent. Hemostasis was obtained. The patient was discharged after a 45 minute recovery period.

Codes Used

- 36145 – Cannulation
- 75790 – Angiogram of vascular access. Although this was done twice during the procedure it is appropriate to code it only once.
- 35476 – Venous angioplasty
- 75978 – S&I code for venous angioplasty
- 93040 – EKG monitoring

Codes Not Used

- 36005 – Cannulation/injection – not used because this code should only be used for cannulation of a peripheral vein for the performance of an extremity venogram
- 75820 – Angiogram of draining veins - not used because code is included in 75790 and there was no indication for doing it as a separate procedure.
- 75827 – Angiogram of SVC - not used because code is included in 75790 and there was no indication for doing it as a separate procedure.
- 75710 – Arteriogram – not used because there was no medical indication.

Case 2

The patient was referred to the facility because of low flow in their graft. The patient had a loop graft in the left forearm. It had been in place for 2 years. There was no history of previous central venous catheters. The patient had one previous episode of thrombosis approximately 1 year ago. There was no evidence of swelling of the arm, neck or chest. No venous collaterals were evident on the chest.

Procedure – The graft was cannulated on the venous side just above the apex of the loop. A sheath was inserted. An angiogram was performed to visualize the graft, draining veins (peripheral and central) and the superior vena cava. Visualization was optimal. A stenotic lesion of 50% was found at the venous anastomosis. A second lesion was seen at the mid point of the arterial side of the loop graft. A third lesion of 70% was seen in the basilic vein at the level of the upper third of the humerus. The patient was sedated. EKG monitoring was performed. A guidewire was passed without difficulty. The basilic lesion was dilated with an 8 X 4 angioplasty balloon with complete resolution. The anastomotic lesion was dilated with the same balloon with a 10% residual. A second cannulation was done to reach the lesion on the arterial side of the graft. It was dilated with the 8 X 4 balloon with no residual. A repeat venogram was performed which showed good results. Flow in the graft was graded as excellent. Hemostasis was obtained. The patient was discharged after a 45 minute recovery period.

Codes Used

- 36145 – Cannulation
- 36145-59 – Second cannulation. The graft had to be cannulated a second time to reach the lesion on the arterial side of the graft.
- 75790 – Angiogram of vascular access. Although this was done twice during the procedure it is appropriate to code it only once.
- 35476 – Venous angioplasty
- 75978 – S&I code for venous angioplasty
- 35476-59 - Second venous angioplasty. This is warranted because there are lesions in two separate vascular structures
- 75978-59 – S&I code for second venous angioplasty
- 35476-59 - Third venous angioplasty. This is warranted because the second lesion in the graft required a second cannulation site. This separate venous access site meets the required definition for a separate procedure.
- 75978-59 – S&I code for third venous angioplasty
- 93040 – EKG monitoring

Case 3

The patient was referred to the facility because of low flow in her graft. The patient had a loop graft in the left forearm. It had been in place for several years. There was a history of a previous central venous catheter. The patient has had several previous episodes of thrombosis; all treated surgically. There was no evidence of swelling of the arm, neck or chest. No venous collaterals were evident on the chest.

Procedure – The graft was cannulated on the venous side just above the apex of the loop. A sheath was inserted. An angiogram was performed to visualize the graft, draining veins (peripheral and central) and the superior vena cava. Visualization was optimal. A stenotic lesion of 50% was found at the venous anastomosis. No other venous lesions were seen. The patient was sedated. EKG monitoring was performed. A guidewire was passed without difficulty. The lesion was dilated with an 8 X 4 angioplasty balloon with complete resolution. A repeat venogram was performed which shows no residual stenosis. Flow in the graft was graded as poor. A retrograde arteriogram was performed. A segment of the brachial artery 10 cm above the anastomosis, extending down below the bifurcation was visualized. The artery appeared to have good flow and no lesions were seen in the artery. However, the arterial anastomosis appeared to be stenotic. A second cannulation was done at the apex of the loop on the arterial side to reach the lesion at the arterial anastomosis. This was dilated with a 6 X 4 balloon. A defect of 50% was seen. A repeat retrograde arteriogram was performed, there was no residual. Flow in the graft was judged to be good. Hemostasis was obtained. The patient was discharged after a 45 minute recovery period.

Codes Used

- 36145 – Cannulation
- 36145-59 – Second cannulation. The graft had to be cannulated a second time to reach the lesion at the arterial anastomosis.
- 75790 – Angiogram of vascular access. Although this was done more than once during the procedure it is appropriate to code it only once.
- 35476 – Venous angioplasty
- 75978 – S&I code for venous angioplasty
- 75710 – Arteriogram. Even though the entire brachial vein was not visualized, the use of this code is warranted. A section of the artery sufficient to make a diagnostic evaluation was visualized. Even though the exam was repeated, it should only be coded once. The medical indication for the study was poor flow in the graft.
- 35475 – Arterial angioplasty. The angioplasty at the arterial anastomosis is coded as an arterial angioplasty
- 75962 – S&I code for arterial angioplasty
- 93040 – EKG monitoring

Codes Not Used

- See above cases
- 36215 – Selective catheterization of brachial artery. This was not used because the arteriogram was performed by a retrograde technique catheter than by introducing a diagnostic catheter. Placement of the angioplasty catheter into the artery is included in the angioplasty code.

Case 4

The patient was referred to the facility because of increasing difficulty with cannulation of her fistula. The patient had a radial-cephalic fistula in the left forearm. It had been in place for several years. The patient also had low flow.

Procedure – The fistula was cannulated in the lower forearm. A sheath was inserted. An angiogram was performed to visualize the fistula, draining veins (peripheral and central) and the superior vena cava. Visualization was optimal. The drainage was primarily via the basilic vein. The cephalic vein in the upper arm was not apparent. A stenotic lesion of 70% was found in the fistula approximately at the mid-forearm level. This lesion was 2 cm in length. A second area of 50% stenosis was seen in the basilic vein at the level of the middle third of the humerus. This lesion was approximately 1 cm in length. The patient was sedated. EKG monitoring was performed. A guidewire was passed without difficulty. An 8 X 4 balloon was used on both lesions with good result. A repeat venogram was performed which showed no residual stenosis. Hemostasis was obtained. The patient was discharged after a 45 minute recovery period.

Codes Used

- 36145 – Cannulation
- 75790 – Angiogram of vascular access. Although this was done twice during the procedure it is appropriate to code it only once.
- 35476 – Venous angioplasty.
- 75978 – S&I code for venous angioplasty
- 35476-59 - Second venous angioplasty. This is warranted because there are lesions in two separate vascular structures
- 75978-59 – S&I code for second venous angioplasty
- 93040 – EKG monitoring

Codes Not Used

- See case #1 above

Case 5

The patient was referred to the facility because of low flow in her fistula. The patient had a radial-cephalic fistula in the left forearm. It had been in place for several years. The patient is referred for an angioplasty because of poor flow and recirculation.

Procedure – The fistula was cannulated in the lower forearm. A sheath was inserted. An angiogram was performed to visualize the fistula, draining veins (peripheral and central) and the superior vena cava. Visualization was optimal. The drainage was primarily via the cephalic vein. A stenotic lesion of 50% was found in the cephalic vein approximately 6 cm above the level of the elbow. This lesion was 2 cm in length. A second area of stenosis was seen in the upper cephalic at the cephalic arch. This lesion was approximately 20 cm in length. It appeared to be almost totally obstructed, only a thread-like column of contrast could be seen in the area. The patient was sedated. EKG monitoring was performed. A guidewire was passed the lower lesion without difficulty. The standard guidewire would not pass through the upper lesion. After considerable manipulation, a Glidewire was eventually passed using a guiding catheter. The upper lesion was dilated with a 7 X 4 angioplasty balloon with complete resolution except for a single area at the cephalic arch which was resistant. Multiple attempts were made to dilate the lesion. After rupturing the initial angioplasty balloon a Conquest balloon was used. The lesion dilated with 40 atmos pressure. The lower lesion was then dilated with the same balloon. It appeared to be elastic with a 30% residual after several dilatations. An 8 X 4 balloon was then used with good result. A repeat venogram was performed which showed no residual stenosis. Hemostasis was obtained. The patient was discharged after a 45 minute recovery period.

Codes Used

- 36145 – Cannulation
- 75790 – Angiogram of vascular access. Although this was done twice during the procedure it is appropriate to code it only once.
- 35476-22 – Venous angioplasty. The 22 modifier was attached because of the difficulty of the case in comparison to the usual.
- 75978 – S&I code for venous angioplasty
- 93040 – EKG monitoring

Codes Not Used

- See above cases
- 35476-59 – second venous angioplasty. A second angioplasty was not coded because everything that was done was in the same anatomical vessel. Even though two different balloons were used on both lesions for a total of three balloons for the case and even though several dilatations were required at both locations, a second venous angioplasty code was not warranted.

Note: The procedure note should clearly relate the reason for adding the -22 modifier in detail sufficient for a reviewers understanding.

Case 6

The patient was referred to the facility because of difficulty with cannulation of her fistula and poor flow. The patient had a radial-cephalic fistula in the left forearm. It had been in place for one year.

Procedure – The fistula was cannulated in the mid forearm with the needle pointing retrograde. A sheath was inserted. The upper fistula was manually occluded to perform a retrograde angiogram to visualize the lower fistula and anastomosis. A juxta-anastomotic stenosis was seen. This was 90% stenotic. The patient was sedated with versed. An attempt was made to pass a guidewire across the anastomosis. Difficulty was encountered because of the severity and angle of the lesion. After several unsuccessful attempts, it was decided to cannulate the brachial artery and approach the lesion from the arterial side. A site just above the level of the elbow was selected and the brachial artery was cannulated with a micro-puncture needle. A guidewire was passed down the artery and a sheath was inserted. An arteriogram was performed to visualize the lower brachial and radial arteries as well as the anastomosis. Using a guiding catheter, a guidewire was passed into the radial artery and guided across the fistula anastomosis into the fistula. A 4 x 4 angioplasty balloon was passed over the guidewire and positioned across the anastomosis. The lesion was dilated with good result. The repeat arteriogram showed 0 % residual and no complications. The lower portion of the fistula was dilated through the venous access site with a 6 X 4 angioplasty balloon with good result. The repeat retrograde angiogram showed 0 % residual and no complications. There were no complications. After the procedure, flow was markedly improved. Hemostasis was obtained. The patient was discharged after an observation period.

Codes Used

- 36145 – Cannulation of fistula
- 75790 – Angiogram of vascular access
- 75710 - Arteriogram of extremity
- 36216 - Selective catheterization of radial artery. This code is used because in this instance the radial artery is a first order branch and the fistula would be considered a second order branch
- 35476 – Venous angioplasty
- 75978 – S&I code for venous angioplasty
- 35475 – Arterial angioplasty. The angioplasty at the arterial anastomosis is coded as an arterial angioplasty
- 75962 – S&I code for arterial angioplasty
- 93040 – EKG monitoring

Codes Not Used

- 36120 - Cannulation of brachial artery was not used because it was superseded by a higher order cannulation code – 36216. The code 36145 is preserved because the venous and arterial cannulations are separate and not related.

Case 7

The patient was referred to the facility because of low flow in her graft. The patient had a loop graft in the left forearm. It had been in place for several years. There was no history of previous central venous catheters. The patient had several previous episodes of thrombosis. There was no evidence of swelling of the arm, neck or chest. No venous collaterals were evident on the chest.

Procedure – The graft was cannulated on the venous side just above the apex of the loop. A sheath was inserted. An angiogram was performed. It appeared that the drainage had originally been via the cephalic vein. However, this was totally occluded. There were multiple collaterals, all small that provided the only drainage. These connected to the basilic system through a circuitous route. The basilic vein was of good size with no area of stenosis. The central veins appeared to be normal. A decision was made to abandon the procedure and refer the patient to vascular surgery for a revision. Hemostasis was obtained. The patient was discharged after a 45 minute recovery period.

Codes Used

- 36145 – Cannulation
- 75790 – Angiogram of vascular access.

Codes Not Used

- 36005 – Cannulation. This was not used because this code should only be used for cannulation of a peripheral vein for the performance of an extremity venogram
- 35476 – Venous angioplasty. This was not used because it was not even attempted. The planned venous angioplasty was converted into a simple venous angiogram because of what was found.

Case 8

The patient was referred to the facility because of low flow in her graft. The patient had a loop graft in the left forearm. It had been in place for 3 years. There was no history of previous central venous catheters. The patient had one previous episode of thrombosis approximately 1 year ago. There was no evidence of swelling of the arm, neck or chest. No venous collaterals were evident on the chest.

Procedure – The graft was cannulated on the venous side just above the apex of the loop. A sheath was inserted. An angiogram was performed to visualize the graft, draining veins (peripheral and central) and the superior vena cava. Visualization was optimal. A stenotic lesion of 50% was found at the venous anastomosis. A second lesion of 70% was seen in the basilic vein at the level of the upper third of the humerus. The patient was sedated. EKG monitoring was performed. A guidewire was passed without difficulty. The basilic lesion was dilated with an 8 X 4 angioplasty balloon with complete resolution. The anastomotic lesion was dilated with the same balloon with a 10% residual. A repeat venogram was performed which showed no flow. A 9 cm hematoma was palpable on the medial aspect of the arm in the area of the treated lesion in the basilic. The balloon was re-inserted, positioned at the site of the lesion, inflated to a soft pressure and left in place for 5 minutes. When deflated and withdrawn, there was no flow. An 8 X 4 endovascular stent was inserted across the area. A repeat angiogram revealed poor placement of the stent, so a second stent was inserted. Another angiogram was performed which showed good flow. Hemostasis was obtained. The patient was discharged after a 45 minute recovery period.

Codes Used

- 36145 – Cannulation
- 75790 – Angiogram of vascular access. Although this was done several times during the procedure during the procedure it is appropriate to code it only once.
- 35476 – Venous angioplasty
- 75978 – S&I code for venous angioplasty
- 35476-59 - Second venous angioplasty. This is warranted because there are lesions in two separate vascular structures
- 75978-59 – S&I code for second venous angioplasty
- 37205 – Stent placement
- 75960 – S&I for stent placement
- 93040 – EKG monitoring

Codes Not Used

- See cases above
- 37206 – Stent placement second vessel. Although a second stent was placed, it was at the same site. Stenting of a second vessel did not take place, therefore, this code is not warranted.

Case 9

The patient had a radio-cephalic fistula which had been in place for approximately 4 months. The fistula was poorly developed. It was felt to be inadequate for dialysis. The dialysis nurse had tried to cannulate it but was unsuccessful. By physical examination, it was felt to have an accessory vein about 10 cm above the anastomosis and have juxta-anastomotic stenosis as well.

Procedure – The fistula was cannulated approximately 8 cm below the level of the elbow in a retrograde direction. A sheath was inserted. Radiocontrast was injected to visualize the upper fistula, all draining veins and the superior vena cava. No stenotic lesions were seen. A retrograde injection was made by occluding the fistula above the sheath to visualize the lower fistula, anastomosis and radial artery. A 3 cm in diameter vein was seen branching off of the fistula about 10 cm above the anastomosis. The first 4 cm of the fistula above the anastomosis was very stenotic and the anastomosis was felt to be small. A guidewire was passed through the sheath and down across the anastomosis and up the radial artery. A 4 X 4 angioplasty balloon was positioned across the anastomosis and inflated. A 50% defect was seen and dilated completely. A 6 X 4 angioplasty balloon was then used to dilate the juxta-anastomotic stenotic lesion. There was no residual. A guiding catheter was passed over the guidewire and used to selectively catheterize the accessory vein. The tip of the catheter was placed in the proximal portion of this vein about 1 cm from its origin and a 2 X 4 embolization coil was deployed at this point. A repeat angiogram performed 5 minutes later showed complete resolution of the juxta-anastomotic stenosis and no flow in the accessory vein.

Codes Used

- 75790 – Angiogram of vascular access. Although this was done several times during the procedure during the procedure it is appropriate to code it only once.
- 75710 – Arteriogram.
- 35476 – Venous angioplasty. This was used for the lower fistula lesion, above the anastomosis.
- 75978 – S&I code for venous angioplasty
- 35475 – Arterial angioplasty. The angioplasty at the arterial anastomosis is coded as an arterial angioplasty
- 75962 – S&I code for arterial angioplasty
- 36012 – Selective catheterization of accessory vein
- 37204 – Coil Placement
- 75894 – Coil Placement S&I
- 75898 – Post coil angiogram via catheter
- 93040 – EKG monitoring

Codes not Used

- 36145 – Cannulation. This cannulation code is superseded by the use of the selective catheterization code 36012.
- 36216 – Selective catheterization of the radial artery. This was not used because even though a catheter was introduced into the radial artery it was an angioplasty catheter. Placement of this catheter into the vessel is part of its code.

- Case 10

The patient was referred to the facility because of a thrombosed graft. The patient had a loop graft in the left forearm. It had been in place for one year. There was no history of central venous catheters. This was the patient's first episode of thrombosis. There was no evidence of swelling of the arm, neck or chest. No venous collaterals were evident on the chest.

Procedure – The graft was cannulated on the venous side just above the apex of the loop. A 5 French catheter was passed up to the edge of the rib cage and a central venous angiogram was performed. All were normal. The patient was sedated and anticoagulated. An angiogram was performed to visualize the peripheral draining veins down to the venous anastomosis. Visualization was optimal. A stenotic lesion of 60% was found at the venous anastomosis. No other venous lesions were seen. EKG monitoring was performed. The graft was cannulated a second time in a retrograde direction just below the venous anastomosis. A sheath was inserted. The graft was cleared of clots by thromboaspiration using a Fogarty catheter. The guidewire was then passed again through the venous site and the lesion at the venous anastomosis was dilated with an 8 X 4 balloon with good result. Flow was restored to the graft.

A 5 French straight catheter was the passed across the arterial anastomosis into the brachial artery through the sheath at the arterial site. An arterial angiogram was performed. A segment of the brachial artery from approximately 10 cm above the anastomosis to well below the bifurcation was visualized. There was no stenosis, flow in the artery was good and there were no emboli. The arterial anastomosis appeared normal. A repeat angiogram was performed, flow in the graft was judged to be good. The result of the angioplasty was good. Hemostasis was obtained. The patient was discharged after a 45 minute recovery period.

Codes Used

- 36145 – Access cannulation
- 75790 – Angiogram of access
- 75710 - Arteriogram. Indicated because of a need to evaluate the patient for peripheral arterial emboli.
- 36215 – Selective catheterization of brachial artery. Indicated because of the risk of inducing a peripheral embolus with a retrograde arteriogram.
- 36870 - Thrombectomy
- 35476 – Venous angioplasty
- 75978 – Venous angioplasty S&I
- 93040 – EKG monitoring

Codes Not Used

- See comments for angioplasty cases
- 36145-59 – Second access cannulation. Second cannulation code not used because of the use of the 36215 code which supersedes it. If this code was not used, then a second cannulation code with a -59 modifier would be warranted.

Case 11

The patient was referred to the facility because of a thrombosed graft. The patient had a loop graft in the left forearm. It had been in place for one year. There was no history of central venous catheters. This was the patient's first episode of thrombosis. There was no evidence of swelling of the arm, neck or chest. No venous collaterals were evident on the chest.

Procedure – The graft was cannulated on the venous side just above the apex of the loop. A 5 French catheter was passed up to the edge of the rib cage and a central venous angiogram was performed. All were normal. The patient was sedated and anticoagulated. An angiogram was performed to visualize the peripheral draining veins down to the venous anastomosis. Visualization was optimal. A stenotic lesion of 50% was found at the venous anastomosis. No other venous lesions were seen. EKG monitoring was performed. The graft was cannulated a second time in a retrograde direction just below the venous anastomosis. A sheath was inserted. The graft was cleared of clots by thromboaspiration using a Fogarty catheter. The guidewire was then passed again through the venous site and the lesion at the venous anastomosis was dilated with an 8 X 4 balloon with good result. Flow was restored to the graft.

A 5 French straight catheter was the passed across the arterial anastomosis into the brachial artery through the sheath at the arterial site. An arterial angiogram was performed. A segment of the brachial artery from approximately 10 cm above the anastomosis to well below the bifurcation was visualized. There was no arterial stenosis, flow in the artery was good and there were no emboli. The arterial anastomosis appeared stenotic. A 6 X 4 angioplasty balloon catheter was inserted through the sheath and the anastomosis was dilated. A defect of 50% was observed. The anastomosis dilated completely. A repeat arteriogram showed resolution of the stenosis.

A repeat angiogram was performed, flow in the graft was judged to be good. The result of the venous angioplasty was good. Hemostasis was obtained. The patient was discharged after a 45 minute recovery period.

Codes Used

- 36145 – Access cannulation
- 75790 – Angiogram of access
- 75710 - Arteriogram. Indicated because of a need to evaluate the patient for peripheral arterial emboli.
- 36215 – Selective catheterization of brachial artery. Indicated because of the risk of inducing a peripheral embolus with a retrograde arteriogram.
- 36870 - Thrombectomy
- 35476 – Venous angioplasty
- 75978 – Venous angioplasty S&I
- 35475 – Arterial angioplasty
- 75962 – Arterial angioplasty S&I
- 93040 – EKG monitoring

Codes Not Used

See case above

Case 12

The patient was referred to the facility because of a thrombosed graft. The patient had a loop graft in the left forearm. It had been in place for one year. There was no history of central venous catheters. The patient has had recurrent thrombosis of her graft. This is the second episode within 3 weeks. She has poor cardiac output and low blood pressure chronically. At the end of her last dialysis, her blood pressure was 90/58. There was no evidence of swelling of the arm, neck or chest. No venous collaterals were evident on the chest.

Procedure – The graft was cannulated on the venous side just above the apex of the loop. A 5 French catheter was passed up to the edge of the rib cage and a central venous angiogram was performed. All were normal. The patient was sedated and anticoagulated. An angiogram was performed to visualize the peripheral draining veins down to the venous anastomosis. Visualization was optimal. No stenotic lesions were seen. EKG monitoring was performed. The graft was cannulated a second time in a retrograde direction just below the venous anastomosis. A sheath was inserted. The graft was cleared of clots by thromboaspiration using a Fogarty catheter. The guidewire was then passed again through the venous site and the venous anastomosis and venous side of the graft were dilated with an 8 X 4 balloon. Flow was restored to the graft.

A 5 French straight catheter was the passed across the arterial anastomosis into the brachial artery through the sheath at the arterial site. An arterial angiogram was performed. A segment of the brachial artery from approximately 10 cm above the anastomosis to well below the bifurcation was visualized. There was no stenosis, flow in the artery was good and there were no emboli. The arterial anastomosis appeared normal. A repeat angiogram was performed, flow in the graft was judged to be good. The result of the angioplasty was good with a 0% residual. Hemostasis was obtained. The patient was discharged after a 45 minute recovery period.

Codes Used

- 36145 – Access cannulation
- 75790 – Angiogram of access
- 75710 - Arteriogram. Indicated because of a need to evaluate the patient for peripheral arterial emboli.
- 36215 – Selective catheterization of brachial artery. Indicated because of the risk of inducing a peripheral embolus with a retrograde arteriogram.
- 36870 - 76 - Thrombectomy, modifier used because this is a repeat procedure by the same physician during the global period
- 93040 – EKG monitoring

Codes Not Used

- See comments for angioplasty cases
- 35476 – Venous angioplasty not used because a venous stenotic lesion was not present
- 75978 – Venous angioplasty S&I
- 36145-59 – Second access cannulation. Second cannulation code not used because of the use of the 36215 code which supersedes it. If this code was not used, then a second cannulation code with a -59 modifier would be warranted.

Case 13

The patient was referred to the facility because of a thrombosed graft. The patient had a loop graft in the left forearm. It had been in place for several years. There was a history of a previous central venous catheter, on both the left and right sides. The patient has had several previous episodes of thrombosis; all treated surgically. There was no evidence of swelling of the arm, neck or chest. No venous collaterals were evident on the chest.

Procedure – The graft was cannulated on the venous side just above the apex of the loop. A 5 French catheter was passed up to the edge of the rib cage and a central venous angiogram was performed. An area of 90% stenosis was seen in the left innominate vein. The superior vena cava could not be visualized adequately. The catheter was advanced over a guidewire across the innominate lesion to the beginning of the superior vena cava. Contrast was injected and the vein was visualized optimally. It was normal. The patient was sedated and anticoagulated. An angiogram was performed to visualize the peripheral draining veins down to the venous anastomosis. Visualization was optimal. A stenotic lesion of 50% was found at the venous anastomosis. No other venous lesions were seen. EKG monitoring was performed. The graft was cannulated a second time in a retrograde direction just below the venous anastomosis. A sheath was inserted. The graft was cleared of clots by thromboaspiration using a Fogarty catheter. The guidewire was then passed again through the venous site and the lesion at the venous anastomosis was dilated with an 8 X 4 balloon with good result. Flow was restored to the graft.

A 5 French straight catheter was the passed across the arterial anastomosis into the brachial artery through the sheath at the arterial site. An arterial angiogram was performed. A segment of the brachial artery from approximately 10 cm above the anastomosis to well below the bifurcation was visualized. There was no stenosis, flow in the artery was good and there were no emboli.

The lesion in the innominate was dilated using a 12 X 4 balloon. A good result was obtained. A repeat retrograde arteriogram was performed, flow in the graft was judged to be good. The results of the angioplasties were good. Hemostasis was obtained. The patient was discharged after a 45 minute recovery period.

Codes Used

- 75790 – Angiogram of access
- 75827-59 - Angiogram of SVC. Indicated because of the history of central venous catheters. It is coded as a separate procedure because it was done via selective catheterization
- 36010 – Selective catheterization of SVC. Indicated because the area could not be otherwise examined.
- 75710 - Arteriogram. This was indicated because of a need to evaluate the patient for peripheral arterial emboli.
- 36215 – Selective catheterization of brachial artery. This was medically indicated because of the risk of inducing a peripheral embolus with a retrograde arteriogram.
- 36870 - Thrombectomy
- 35476 – Venous angioplasty
- 75978 – Venous angioplasty S&I
- 35476-59 – Venous angioplasty for second venous angioplasty
- 75978-59 – Venous angioplasty S&I for second venous angioplasty

- 93040 – EKG monitoring

Codes Not Used

- See comments for angioplasty cases
- 36145 – Access cannulation. Second cannulation code not used because of the use of the 36010 code which supersedes it. If this code was not used, then the cannulation code would be warranted.
- 36145-59 – Second access cannulation. Second cannulation code not used because of the use of the 36215 code which supersedes it. If this code was not used, then a second cannulation code with a -59 modifier would be warranted.
- 75820-59 – Angiogram of draining veins. This code was not used even though the central draining veins were evaluated using a catheter. The selective catheterization was not medically indicated; it was done for connivence. Had it been medically indicated, then this code would be warranted.

Case 14

The patient was referred to the facility because of a thrombosed graft. The patient had a loop graft in the left forearm with multiple large pseudoaneurysms. It had been in place for several years. There was a history of a previous central venous catheter, on both the left and right sides. The patient has had multiple previous episodes of thrombosis; all treated surgically. The most recent was 3 days ago. There was no evidence of swelling of the arm, neck or chest. No venous collaterals were evident on the chest.

Procedure – The graft was cannulated on the venous side just above the apex of the loop. A guidewire was passed up to the level of the central veins with great difficulty because of the pseudoaneurysms. This required the use of two different extra guidewires and an extra guiding catheter. A 5 French catheter was passed up to the edge of the rib cage and a central venous angiogram was performed. All were normal. The patient was sedated and anticoagulated. An angiogram was performed to visualize the peripheral draining veins down to the venous anastomosis. Visualization was optimal. A stenotic lesion of 60% was found at the venous anastomosis. A stenotic lesion of 80% was also present in the basilic vein at the mid-humerus level. EKG monitoring was performed. The graft was cannulated a second time in a retrograde direction just below the venous anastomosis. A sheath was inserted. Again great difficulty was experienced in passing a guidewire over to the arterial anastomosis due to the multiple pseudoaneurysms. Multiple attempts were made to clear the graft of clots by thromboaspiration using a Fogarty catheter. The guidewire was then passed again through the venous site and the lesion at the venous anastomosis was dilated with an 8 X 4 balloon with good result. The lesion in the basilic was also dilated with good results. Flow was restored to the graft temporarily and then lost. The problem appeared to be the presence of the pseudoaneurysms. An Arrow Trerotola device was used, but problems could not be resolved. After a total period of 90 minutes, a decision was made to abandon the case and refer the patient to surgery for a new access.

Codes Used

- 36145 – Access cannulation
- 36145-59 - Second access cannulation. Warranted because of cannulation at separate site.
- 75790 – Angiogram of access
- 36870-52 - Thrombectomy. The 52 modifier was used because of failure to restore flow; the thrombectomy was unsuccessful (see comments below)
- 35476 – Venous angioplasty
- 75978 – Venous angioplasty S&I
- 35476-59 – Venous angioplasty. Warranted because of second lesion in separate vein.
- 75978-59 – Venous angioplasty S&I
- 93040 – EKG monitoring

This was a failed thrombectomy. Considerable extra effort, time and supplies were expended, but it was not successful. In this instance one has several choices as they relate to coding. It could be coded only for what was actually accomplished - the angiogram and the angioplasty procedures, it could be coded with a 53 modifier indicating a discontinued procedure or it could be coded as here, with a 52 modifier to indicate reduced services. If either of the modifiers, 52 or 53, are attached one should elaborate in the procedure note on what was actually done and accomplished, and the extras that were expended.

Case 15

The patient was referred to the facility because of a thrombosed graft. The patient had a loop graft in the left forearm. It had been in place for one year. There was no history of central venous catheters. This was the patient's first episode of thrombosis. There was no evidence of swelling of the arm, neck or chest. No venous collaterals were evident on the chest.

Procedure – The graft was cannulated on the venous side just above the apex of the loop. A 5 French catheter was passed up to the edge of the rib cage and a central venous angiogram was performed. All were normal. The patient was sedated and anticoagulated. An angiogram was performed to visualize the peripheral draining veins down to the venous anastomosis. Visualization was optimal. A stenotic lesion of 60% was found at the venous anastomosis. No other venous lesions were seen. EKG monitoring was performed. The graft was cannulated a second time in a retrograde direction just below the venous anastomosis. A sheath was inserted. The graft was cleared of clots by thromboaspiration using a Fogarty catheter. The guidewire was then passed again through the venous site and the lesion at the venous anastomosis was dilated with an 8 X 4 balloon with good result. Flow was restored to the graft. The patient began to complain of pain in her left hand. The radial pulse was not palpable.

A 5 French straight catheter was the passed across the arterial anastomosis into the brachial artery through the sheath at the arterial site. An arterial angiogram was performed. A segment of the brachial artery from approximately 10 cm above the anastomosis to well below the bifurcation was visualized. An embolus was observed in the distal brachial artery just above the bifurcation. A guidewire was passed through the catheter and passed down below the location of the embolus. A 6 X 4 angioplasty balloon was passed over the guidewire and down below the level of the embolus. The balloon was inflated with a low pressure and gently pulled back into the graft. The 5 French straight catheter was re-inserted and another arteriogram of the brachial artery was performed. The embolus was gone. The run-off was examined down to the level of the hand and was totally clear. A repeat angiogram was performed of the graft, flow was judged to be good. The patient's hand pain was gone and a radial pulse was palpable. Hemostasis was obtained. The patient was discharged after a 45 minute recovery period.

Codes Used

- 36145 – Access cannulation
- 75790 – Angiogram of access
- 75710 - Arteriogram. Indicated because of a need to evaluate the patient for peripheral arterial emboli.
- 36215 – Selective catheterization of brachial artery. Indicated because of the risk of inducing a peripheral embolus with a retrograde arteriogram.
- 34101 - Embolectomy
- 36870 - Thrombectomy
- 35476 – Venous angioplasty
- 75978 – Venous angioplasty S&I
- 93040 – EKG monitoring

Codes Not Used

- See comments for angioplasty cases

- Case 16

A patient was referred for the placement of a tunneled hemodialysis catheter to initiate dialysis. The patient had no prior history of central vein catheterization.

Procedure – The right internal jugular vein was cannulated using real-time ultrasound guidance. Sedation was administered. The patient was on EKG monitoring. A guidewire was inserted and passed down into the inferior vena cava under fluoroscopic guidance. A 28 cm cuffed catheter was then tunneled up from the anterior chest and inserted. The position of the tip was checked with fluoroscopy and found to be optimum. The catheter flushed well. It was sutured in place. A bandage was applied. The patient was discharged after a 45 minute recovery period.

Codes Used

- 76937 - Ultrasound guidance
- 75998– Fluoroscopy guidance
- 36558 – Catheter insertion.
- 93040 – EKG monitoring

Codes Not Used

- 36010 - Placement of catheter into superior vena cava. This is not used because the code for the placement of the tunneled catheter includes placement into the superior vena cava.

Note: An image of the ultrasound is required for the ultrasound code 76937 to be used

Case 17
A patient was referred for the placement of a tunneled hemodialysis catheter because of a failed dialysis access graft. The patient had a prior history of central vein catheterization.

Procedure – The right internal jugular vein was cannulated using real-time ultrasound guidance. Sedation was administered. The patient was on EKG monitoring. A guidewire was inserted but was difficult to pass. Radiocontrast was injected. A severe stenosis was seen at the level of the innominate vein. With fluoroscopic guidance the guidewire was passed down into the inferior vena cava. An 8 X 4 angioplasty balloon was inserted and the lesion was dilated. A 24 cm cuffed catheter was then tunneled up from the anterior chest and inserted without difficulty. The position of the tip was checked with fluoroscopy and found to be too short. The catheter was removed and a 28 cm one was inserted. Under fluoroscopy, its tip was optimally located. The catheter flushed well. It was sutured in place. A bandage was applied. The patient was discharged after a 45 minute recovery period.

Codes Used
- 76937 - Ultrasound guidance
- 75998– Fluoroscopy guidance
- 36558 – Catheter insertion
- 35476 – Venous angioplasty
- 75978 – Venous angioplasty S&I
- 93040 – EKG monitoring

Codes Not Used
See `above case
- 75827 – Angiogram of SVC. Not used because it is included in the 75998 code for fluoroscopic guidance.

Case 18

The patient was referred for the removal of a tunneled catheter. The patient had a functioning peripheral vascular access in place that was functioning well. The catheter was no longer needed.

Procedure – The catheter exit site was anesthestized with lidocaine. The cuff was freed with manual dissection. The catheter was removed without difficulty. The site was covered with a bandaged and the patient was discharged.

Codes Used

- 36589 – Tunneled catheter removal

This is the only code that is warranted.

Case 19
The patient was dialyzing with a tunneled catheter in the right internal jugular vein. The patient has had increasing problems with poor blood flow. The patient is referred for a catheter exchange.

Procedure - he patient was on EKG monitoring. The catheter exit site was anesthestized with lidocaine. The cuff was freed with manual dissection. Puss drained from the exit site revealing a tunnel infection. Radiocontrast was injected; a fibrin sheath was not seen.

The catheter was removed over a guidewire and a new catheter was inserted using the same site.

Codes Used
- 75998– Fluoroscopy guidance
- 36581– Tunneled catheter exchange
- 93040 – EKG monitoring

Codes Not Used
See above case
- 76937 - Ultrasound guidance – this was not done
- 75827 – Angiogram of SVC. Not used because it is included in the 75998 code for fluoroscopic guidance.

Case 20

The patient was dialyzing with a tunneled catheter in the right internal jugular vein. The patient had an episode of fever and chills. A blood culture was performed it was positive. The patient has been on antibiotics for 24 hours and is afebrile. The patient is referred for a catheter exchange.

Procedure - The patient was on EKG monitoring. The catheter exit site was anesthestized with lidocaine. The cuff was freed with manual dissection. Puss drained from the exit site revealing a tunnel infection. Radiocontrast was injected; a fibrin sheath was not seen.

The catheter was removed.

The left internal jugular vein was cannulated using real-time ultrasound guidance. Sedation was administered. A guidewire was inserted and passed down into the inferior vena cava under fluoroscopic guidance. A 32 cm cuffed catheter was then tunneled up from the anterior chest and inserted. The position of the tip was checked with fluoroscopy and found to be optimum. The catheter flushed well. It was sutured in place. A bandage was applied. The patient was discharged after a 45 minute recovery period.

Codes Used

- 76937 - Ultrasound guidance
- 75998– Fluoroscopy guidance
- 36589 – Tunneled catheter removal
- 36558 – Catheter insertion
- 93040 – EKG monitoring

Codes Not Used

See above cases

- 36581– Tunneled catheter exchange. Not used because this catheter exchange involved placing the new catheter at a different vascular site than the catheter this was removed. In this instance, the coding reflects both a removal and a new insertion. Had the catheter been placed at the same vascular site, then the 36581 code would have been warranted.

Case 21

The patient was dialyzing with a tunneled catheter. The blood flow had been 400 mL/min. Over the past week, the blood flow has gotten progressively poorer. Currently the blood flow is only capable of 150 ml/min. The patient is referred for a catheter exchange.

Procedure - The patient was on EKG monitoring. The catheter exit site was anesthestized with lidocaine. The cuff was freed with manual dissection. The catheter was pulled back to the point that its tip was just beyond the venous entry site. Radiocontrast was injected, revealing the presence of a fibrin sheath.

The catheter was removed over a guidewire and an 8 X 4 angioplasty balloon was passed down to a level below the tip of the fibrin sheath. It was inflated and pulled back until met with resistance; this was several centimeters beyond the venous entry site. The balloon was then deflated pulled back to the venous entry site and dilated. A 50% defect in the balloon was seen. This was dilated.

The new catheter was inserted over the guidewire. With its tip just beyond the venous entry site, radiocontrast was injected. The previously noted fibrin sheath was no longer present. Under fluoroscopy, its tip was optimally located. The catheter flushed well. It was sutured in place. A bandage was applied. The patient was discharged after a 45 minute recovery period.

<u>Codes Used</u>

- 75998– Fluoroscopy guidance
- 36581– Tunneled catheter exchange. Used because the new catheter was placed at the same vascular site as the old catheter.
- 35476 – Venous angioplasty - 52
- 75978 – Venous angioplasty S&I - 52
- 93040 – EKG monitoring

<u>Codes Not Used</u>

See above cases

- 76937 - Ultrasound guidance. Ultrasound was not used for the exchange.
- 75827 – Angiogram of SVC. Not used because it is included in the 75998 code for fluoroscopic guidance.
- 36589 – Tunneled catheter removal. Not used because it is included in the 36581 exchange code.
- 36558 – Tunneled catheter insertion. Not used because it is included in the 36581 exchange code

Note - The code for venous angioplasty would have been used even if a defect had not been demonstrated when the balloon was inflated.

Case 22

The patient has CKD and was anticipating starting dialysis within the next 6 months. He had no prior access creations, no pacemaker and no history of previus central venous catheters that he could remember. The patient was referred for vascular mapping.

Procedure – The radial artery and brachial artery were evaluated with ultrasound to determine diameters, depths and assess for any evidence of pathology. The cephalic vein was measured for diameter and depth at the wrist, mid forearm, elbow and mid upper arm using ultrasound. The basilic vein was measured for diameter and depth at the elbow and mid upper arm using ultrasound. . A vein on the back of the patients hand was cannulated with an Angiocath. Multiple injections of diluted radiocontrast were made to visualize the superficial veins of the lower arm, upper arm and central veins up through the superior vena cava.

Codes Used

- G0365 – 52 – vascular mapping.
- 36005 - Cannulation of vein and injection of contrast

Codes Not Used

- 75820 - Venogram of single arm
- 75827 - Venogram of SVC
- 93931 – Ultrasound of artery, unilateral
- 93731 – Ultrasound of vein, unilateral

Note: The most appropriate code for use here is the G0365 code for vascular mapping. Had this been done on both arms then the code would be listed twice and a 59 modifier would be used on the second code to indicate that it was a separate and distinct procedure. If the patient was not eligible for the use of the G0365 code then these other codes might be warranted.

The G0365 code must be used in this case because it offers the best fit for the situation. This is a radiologic code and does not preclude the use of surgical codes that might be warranted because of the type of procedure performed. The other codes used in the next case should not be used because they are all bundled within the G0365 code.

The G0365 code requires that both the venous and arterial anatomy be evaluated. If only a venous angiogram was performed, and the arterial anatomy was not assessed, the G0365 code should be used with a 52 modifier to indicate reduced service.

Case 23

The patient was referred to the facility for vein mapping. A review of the medical history reveals that the patient has had 2 prior AV grafts, both have failed. The patient is currently catheter dependent for dialysis.

Procedure – The radial artery and brachial artery were evaluated with ultrasound to determine diameters, depths and assess for any evidence of pathology. The cephalic vein was measured for diameter and depth at the wrist, mid forearm, elbow and mid upper arm using ultrasound. The basilic vein was measured for diameter and depth at the elbow and mid upper arm using ultrasound. . A vein on the back of the patients hand was cannulated with an Angiocath. Multiple injections of diluted radiocontrast were made to visualize the superficial veins of the lower arm, upper arm and central veins up through the superior vena cava.

Codes Used

- 36005 - Cannulation of vein and injection of contrast
- 75820 - Venogram of single arm
- 75827 - Venogram of SVC
- 93931 – Ultrasound of artery, unilateral

Codes Not Used

- G0365 – 52 – vascular mapping
- 93731 – Ultrasound of vein, unilateral

Note: In this instance, unlike Case 22, the patient is not eligible for the G0365 code because of the prior accesses. In this instance use of the individual component codes is warranted.

The code 93731 for ultrasound of vein, unilateral was not used because the venous angiogram was performed and was coded. To code both represents a duplication and is not permitted.