Clinical Policy Title: Endovenous stents

Clinical Policy Number: 05.03.06

Effective Date: September 1, 2017
Initial Review Date: July 20, 2017
Most Recent Review Date: August 17, 2017
Next Review Date: August 2018

Policy contains:
- Chronic venous disease and insufficiency.
- Venous stenosis.
- Balloon-expandable stent.
- Self-expandable stent.

Related policies:
None.

ABOUT THIS POLICY: AmeriHealth Caritas Pennsylvania has developed clinical policies to assist with making coverage determinations. AmeriHealth Caritas Pennsylvania’s clinical policies are based on guidelines from established industry sources, such as the Centers for Medicare & Medicaid Services (CMS), state regulatory agencies, the American Medical Association (AMA), medical specialty professional societies, and peer-reviewed professional literature. These clinical policies along with other sources, such as plan benefits and state and federal laws and regulatory requirements, including any state- or plan-specific definition of “medically necessary,” and the specific facts of the particular situation are considered by AmeriHealth Caritas Pennsylvania when making coverage determinations. In the event of conflict between this clinical policy and plan benefits and/or state or federal laws and/or regulatory requirements, the plan benefits and/or state and federal laws and/or regulatory requirements shall control. AmeriHealth Caritas Pennsylvania’s clinical policies are for informational purposes only and not intended as medical advice or to direct treatment. Physicians and other health care providers are solely responsible for the treatment decisions for their patients. AmeriHealth Caritas Pennsylvania’s clinical policies are reflective of evidence-based medicine at the time of review. As medical science evolves, AmeriHealth Caritas Pennsylvania will update its clinical policies as necessary. AmeriHealth Caritas Pennsylvania’s clinical policies are not guarantees of payment.

Coverage policy

AmeriHealth Caritas Pennsylvania considers the use of balloon-expandable and self-expandable endovenous stents to be clinically proven and, therefore, medically necessary in members with disabling or life-threatening occlusive or stenotic disease of the central veins that extend from the iliofemoral veins to the subclavian veins. Conditions include, but are not limited to:
- Iliocaval or iliofemoral obstruction.
- Superior or inferior vena caval stenosis.
- Post-thrombotic stenosis (PTS).
- Post-operative venous narrowing due to repair of sinus venosus atrial septal defect.
- Salvage of thrombosed or stenotic arterio-venous dialysis access grafts.
- Budd-Chiari syndrome (thrombotic obstruction of major hepatic veins).
- May-Thurner syndrome (iliac vein compression syndrome).
• Discordant atrioventricular connection after Mustard or Senning repair of transposition of the great arteries.
• Congenital or acquired pulmonary artery stenosis or hypoplasia.
• Pulmonary vein stenosis as a result of external compression or following radiofrequency ablation, lung transplantation, or surgical repair for anomalous pulmonary vein connections.
• Isolated congenital pulmonary vein stenosis.
  - Exception: Endovenous stenting is not medically necessary for pulmonary vein stenosis associated with other congenital heart disease that requires surgical intervention.

Limitations:

All other uses of endovenous stents are not medically necessary.

Endovenous stents are contraindicated in members who have an existing contraindication to anticoagulation or thrombolytic therapy.

Only endovenous stents approved by the U.S. Food and Drug Administration (FDA) are medically necessary.

Alternative covered services:

• Dressings for venous ulcers.
• Compression therapy.
• Physiotherapy, leg elevation, and leg massage.
• Pharmacologic treatment.
• Sclerotherapy.
• Transcutaneous laser.
• Endovenous ablation.
• Open surgery.
• Percutaneous transluminal angioplasty (PTA) alone.

Background

Relative to the arterial system, the venous system is characterized by low pressure, low velocity, large volume, and low resistance (Wittens, 2015). The heart, pressure gradients, the peripheral venous pump, and competent valves interact together to overcome the hydrostatic pressure induced by gravity. The larger veins serve as the primary capacitance vessels where most of the blood volume is found and where regional blood volume is regulated. Finally, the venous system affects the regulation of body temperature.
Chronic venous disease is a common condition in Western Europe and the United States. It refers to morphological and functional abnormalities of the venous system of long duration that demonstrate symptoms or signs indicating the need for investigation and/or care (Eklof, 2009). The most common manifestations of chronic venous disease occur in the lower extremities and are telangiectases (spider veins), reticular veins, and varicose veins (Eberhardt, 2014).

Chronic venous insufficiency (CVI) describes more advanced forms of venous disorders of the lower extremities, characterized by persistent ambulatory venous hypertension causing various pathologies, including pain, edema, skin changes, and ulcerations (Eberhardt, 2014). The Clinical Etiological Anatomical Pathophysiological (CEAP) classification is widely used to score the severity of chronic venous disease, among others (Wittens, 2015).

Venous stenosis is intimal hyperplasia and fibrosis causing progressive vessel narrowing and outflow obstruction (Chan, 2004). Venous stenosis most commonly affects the axillary, brachial, cephalic, or brachiocephalic veins of the upper extremities, or the superior vena cava, but can also affect the central veins in the abdomen and the pulmonary artery and veins. Common causes are placement of central venous catheters, pacemaker leads, hemodialysis catheters, prior radiation, trauma, or extrinsic compression.

Pulmonary arterial stenosis is a congenital abnormality often presenting with other congenital heart or lung defects; it may occur in isolation and be rapidly progressive (Boston Children’s Hospital, 2017). Pulmonary vein stenosis is a rare condition occurring in young children with or without various forms of congenital heart disease. In adults, it is rarer and often associated with mediastinal processes, such as neoplasms or fibrosing mediastinitis, and, increasingly, as a complication of radiofrequency ablation procedures around the pulmonary veins (Latson, 2007).

**Endovenous stents:**

Unlike arterial disease, in most cases, chronic venous disease seldom poses a threat to limb or life. Consequently, invasive intervention is usually reserved for lesions with disabling symptoms that do not respond to conservative treatment (Endovascular Today, 2013). An endovenous stent is a synthetic tubular structure implanted in native or graft vasculature to provide mechanical radial support and enhance vessel patency. PTA delivers the stent under ultrasound guidance to the intended location, where it is expanded within the luminal space using either a balloon catheter or a self-expanding mechanism.

The FDA classifies intravascular stents, including balloon expandable and self-expanding stents, as class III devices requiring premarket approval; product codes for intravascular stents are specific to the vessel of interest (FDA, 2017):

- MAF — Stent, Coronary.
- NIM — Stent, Carotid.
- NIN — Stent, Renal.
• NIO — Stent, iliac.
• NIP — Stent, Superficial Femoral Artery.

Initially, the FDA approved intravascular stents for arterial obstructions to restore and maintain arterial perfusion. Early venous stenting applied balloon-expandable and self-expandable stents as an off-label use. Clinical experience has shown advantages and disadvantages to each type of stent. Compared to the self-expanding type, balloon-expandable stents tend to have higher radial force but will not re-expand if crushed or bent. On the other hand, self-expanding stents are available in larger lengths and diameters, conform better to curvatures, and are more easily deployed (Bjarnason, 2008).

Dedicated venous stents are emerging to address the shortcomings of their arterial counterparts (Endovascular Today, 2015). As of this writing, five are available for use in the United States:
• The Wallstent® Venous Endoprosthesis (Boston Scientific SciMed Inc., Maple Grove, Minnesota) under pre-market approval number P980033 (FDA, 2001). It is a self-expanding, stainless steel stent indicated for improving central venous diameter following unsuccessful angioplasty in patients on chronic hemodialysis with stenosis of the venous outflow tract. The vessels that can be treated with this device are the innominate and subclavian veins ranging from 8 mm to 15 mm in diameter. Unsuccessful angioplasty is defined as:
  – Residual stenosis > 30 percent for a vein < 10 mm in diameter or > 50 percent for a vein > 10 mm in diameter.
  – A tear that interrupts the integrity of the intima or lumen.
  – Abrupt lesion site occlusion or refractory spasm.
• The Veniti Vici™ Venous Stent System (Veniti Inc., Fremont, California) under an FDA Investigational Device Exemption (IDE) within a clinical trial entitled: “VIRTUS-OUS Safety and Efficacy of the Veniti Vici™ Venous Stent System (Veniti Inc.) When Used to Treat Clinically Significant Chronic Non-malignant Obstruction of the Iliofemoral Venous Segment” (clinicaltrials.gov identifier: NCT02112877). It is a nitinol, self-expanding stent.

The FDA has approved three nitinol, self-expanding stents for treatment of stenosis or thrombotic occlusion at the venous anastomosis of synthetic arteriovenous (AV) access grafts, with venous application (product code PVF; FDA, 2017):
• Fluency® Plus Endovascular Stent Graft (Bard Peripheral Vascular, Inc., Tempe, Arizona; PMA number P130029).
• Gore Viabahn® Endoprosthesis and Endoprosthesis with Heparin Bioactive Surface (W.L. Gore & Assoc. Inc., Flagstaff, Arizona; PMA number P130006)
• FLAIR™ Endovascular Stent Graft (Bard Peripheral Vascular, Tempe, Arizona; PMA number P060002).

**Searches**

AmeriHealth Caritas Pennsylvania searched PubMed and the databases of:
• UK National Health Services Centre for Reviews and Dissemination.
• Agency for Healthcare Research and Quality’s National Guideline Clearinghouse and other evidence-based practice centers.
• The Centers for Medicare & Medicaid Services (CMS).

We conducted searches on June 5, 2017. Search terms were: “Self Expandable Metallic Stents” (MeSH), “Budd-Chiari Syndrome” (MeSH), “Venous Thrombosis” (MeSH), “Stenosis, Pulmonary Vein” (MeSH), “Upper Extremity Deep Vein Thrombosis” (MeSH), “Veins” (MeSH), and “Budd-Chiari Syndrome” (MeSH).

We included:
• **Systematic reviews**, which pool results from multiple studies to achieve larger sample sizes and greater precision of effect estimation than in smaller primary studies. Systematic reviews use predetermined transparent methods to minimize bias, effectively treating the review as a scientific endeavor, and are thus rated highest in evidence-grading hierarchies.
• **Guidelines based on systematic reviews**.
• **Economic analyses**, such as cost-effectiveness, and benefit or utility studies (but not simple cost studies), reporting both costs and outcomes — sometimes referred to as efficiency studies — which also rank near the top of evidence hierarchies.

**Findings**

We identified three systematic reviews (Wen-da, 2016; Seager, 2016; Razavi, 2015), one narrative review (El-Kassem, 2015), and seven evidence-based guidelines (Wittens, 2015; Kahn, 2014; O’Donnell, 2014; Hohenwalter, 2013; Feltes, 2011; DeLeve, 2009; National Kidney Foundation [NKF], 2006) for this policy. The evidence base largely consists of low-quality, retrospective, non-randomized, and uncontrolled studies using the Wallstent. The evidence for balloon-expandable endovenous stents is based on expert consensus derived from anecdotal reports and small, uncontrolled studies in pediatric populations.

Endovenous stenting and intravascular ultrasound represent important technological advances in the minimally invasive treatment of symptomatic chronic venous disease, which previously required open surgery. Clinical indications focus on adjunctive use with PTA when venous patency is not adequately achieved with PTA alone in persons with symptomatic venous obstruction secondary to venous thrombosis, stenosis, or compression disorders. Evidence-based guidance also supports endovenous stents for treatment of arteriovenous graft complications caused by stenosis (NKF, 2006). Endovenous stenting is reserved for use in the central veins of the chest and abdomen extending from the iliofemoral vein to the subclavian veins; it has been less successful in treating peripheral chronic venous disease (*Endovascular Today*, 2013; Feltes, 2011). Stent failure would not hinder subsequent PTA or open surgery, should it be needed.
Endovenous stenting with either self-expandable or balloon-expandable stents is a safe procedure with long-term stent patency and low morbidity and mortality. Systematic reviews reported healing rates of stasis ulceration in excess of 50 percent with significant improvement in quality of life (Wen-da, 2016; Seager, 2016; Razavi, 2015). Self-expandable stents (Wallstent, in particular) has high technical success and acceptable complication rates regardless of cause of obstruction; the main complications are stent migration, stent fracture, and infection.

Balloon-expandable endovenous stents are used more often in children, representing an off-label use (Feltes, 2011). Their benefit lies in their ability to be dilated to the adult diameter of that vessel as the child grows. The most common indications are for congenital or acquired pulmonary artery stenosis and relief of obstruction or stenosis of the central veins. Indications for pulmonary vein stenosis are more controversial, but expert consensus supports their use for external compression, after radiofrequency ablation or lung transplantation, after surgical repair for anomalous pulmonary vein connections, and isolated congenital pulmonary vein stenosis. There is general agreement that endovenous stenting is not indicated for pulmonary vein stenosis associated with other congenital heart disease that requires surgical intervention.

Policy updates:

None.

Summary of clinical evidence:

<table>
<thead>
<tr>
<th>Citation</th>
<th>Content, Methods, Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wen-da (2016)</td>
<td>Key points:</td>
</tr>
<tr>
<td>Efficacy and safety of venous stenting for chronic obstructive venous disease</td>
<td>- Meta-analysis and systematic review of 14 studies (1,987 total patients).</td>
</tr>
<tr>
<td></td>
<td>- Overall quality: not reported. Majority of studies used the Wallstent.</td>
</tr>
<tr>
<td></td>
<td>- 30-day thrombotic events: 2.0% (4.0% in PTS versus 0.8% in nonthrombotic iliac vein lesions [NIVL], p = 0.0002).</td>
</tr>
<tr>
<td></td>
<td>- Overall access site complications: 1.7%.</td>
</tr>
<tr>
<td></td>
<td>- Stent migration: 1.3%.</td>
</tr>
<tr>
<td></td>
<td>- Retroperitoneal bleeding and contrast extravasation: 1.8%.</td>
</tr>
<tr>
<td></td>
<td>- Back pain: 62.9%.</td>
</tr>
<tr>
<td></td>
<td>- Ulcer healing: 72.1% (70.3% in PTS versus 86.9% in NIVL, p = 0.0022). Ulcer recurrence rate: 8.7%.</td>
</tr>
<tr>
<td></td>
<td>- With stent placement, there was a significant pain and edema relief, and severity scores declined, but no data reported.</td>
</tr>
<tr>
<td></td>
<td>- Primary, assisted primary, and secondary patency rates were 91.4%, 95.0%, and 97.8%, respectively, at 12 months and 77.1%, 92.3%, and 94.3%, respectively, at 36 months; overall patency rates were lower in PTS than NIVL.</td>
</tr>
</tbody>
</table>

Seager (2016) | Key points: |
<table>
<thead>
<tr>
<th>Citation</th>
<th>Key points:</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Kassem (2015)</td>
<td>Role of endovascular stents in dialysis access maintenance</td>
</tr>
<tr>
<td>Razavi (2015)</td>
<td>Safety and effectiveness of stent placement for iliofemoral venous outflow obstruction</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Citation</th>
<th>Content, Methods, Recommendations</th>
</tr>
</thead>
</table>
| Endovenous stenting in chronic venous disease secondary to iliac vein obstruction | - Systematic review of 14 before-and-after studies, one controlled before-and-after study, and one case series) encompassing successful deep venous stenting in 2,373 patients with 2,586 post-thrombotic or non-thrombotic limbs.  
- Overall quality: very low to low. Data were too heterogeneous to perform a meta-analysis.  
- There were significant improvements in validated measures of disease severity and venous disease-specific quality of life.  
- Persistent ulcer healing rates: 56% to 100% in limbs that had often failed conservative management.  
- Primary and secondary stent patency: 32% to 98.7% and 66% to 96%, respectively.  
- Major complication rate: 0 to 8.7% per stented limb. |
| El Kassem (2015) | Key points: |
| - Narrative review. No quality assessment.  
- FDA-approved stents should be used carefully to not jeopardize future secondary fistula creation. Stents should be avoided along cannulation sites and not be used to eliminate dialysis access aneurysms.  
- Indications:  
  - Hemodialysis vascular access dysfunction caused by vascular stenosis.  
  - Rapid recurrence of stenosis (less than three months).  
  - Salvage arteriovenous access in the presence of procedure-related grade 2 and 3 hematomas and avoid the need for urgent surgery.  
  - Prevention of recoil after angioplasty. |
| Razavi (2015) | Key points: |
| - Systematic review and meta-analysis of 37 studies reporting 45 treatment effects (nonthrombotic [eight]; acute thrombotic [19]; and chronic post-thrombotic [18]) with 2,869 total patients (nonthrombotic, 1,122; acute thrombotic, 629; and chronic post-thrombotic, 1,118).  
- Overall quality: low. Mostly retrospective, single-institution studies, high risk of publication bias for technical success outcomes. Wallstent was used singularly or in combination with other stents in 78% of cases.  
- Technical success rates: 94% to 96%, comparable among groups.  
- Major bleeding: 0.3% to 1.1%.  
- Pulmonary embolism: 0.2% to 0.9%.  
- Periprocedural mortality: 0.1% to 0.7%.  
- Early thrombosis: 1.0% to 6.8%.  
- Primary and secondary patency at one year: 96% and 99% for nonthrombotic, 87% and 89% for acute thrombotic, and 79% and 94% for chronic post-thrombotic.  
- Patient symptom relief data were reported inconsistently. |
<p>| Wittens (2015) for the European Society for Vascular Surgery | Key points: |
| - Clinical results using dedicated venous stents and comparison between different types of stent are lacking. The optimal design and material of a venous stent is presently not known. |</p>
<table>
<thead>
<tr>
<th>Citation</th>
<th>Content, Methods, Recommendations</th>
</tr>
</thead>
</table>
| Kahn (2014) | • In the venous system, PTA must always be complemented by a stent placement to avoid collapse of the vein.  
• Self-expandable stents should be used in the veins, ideally with a high radial force and sufficient flexibility.  
• Stent placement is safe with low mortality and morbidity.  
• Interventions distal to the groin, including endophlebectomy or stenting further down into the femoral vein or profunda femoral vein are not yet validated.  
• In patients with chronic iliocaval or ilio-femoral obstruction, or in patients with symptomatic non-thrombotic iliac vein lesions, PTA and stent placement using large self-expanding stents should be considered.  
• After PTA, stent placement should be considered for patients with chronic deep venous obstruction. |
| PTS | Key points:  
• Literature is conflicting on whether PTS is predominantly the consequence of outflow obstruction, venous valvular reflux, or both.  
• Venoplasty and stenting are indicated for iliocaval/iliofemoral obstruction causing severe symptoms.  
• Surgical endophlebectomy of common femoral vein with patch angioplasty and endoluminal balloon venoplasty and stenting of iliac veins and vena cava indicated for femoral and iliac vein reconstruction.  
• Stent type not mentioned. |
• Recommend venous angioplasty and stent recanalization in addition to standard compression therapy to aid in venous ulcer healing and prevent recurrence in a patient with inferior vena cava or iliac vein chronic total occlusion or severe stenosis, with or without lower extremity deep venous reflux disease, that is associated with skin changes at risk for venous leg ulcer (C4b), healed venous leg ulcer (C5), or active venous leg ulcer (C6) (Grade 1; level of evidence C).  
• Recommend endovenous stenting for iliac occlusive disease; open autogenous repair is best for deep vein reflux in the infrainguinal lower extremity or from failed endovenous stent procedures of the iliocaval and iliofemoral venous system (Consensus).  
• Suggest PTA with stenting as the initial procedure over deep venous valvular reconstructions or open operative bypass procedures because of lower invasiveness and less risk to the patient.  
• Prefer percutaneous iliac and caval vein stenting in patients with clinically significant iliac and caval obstruction combined with infrainguinal reflux or obstruction; many centers prefer techniques for iliocaval and some common femoral vein occlusive/stenotic conditions, such as PTS or that of the May-Thurner primary disorder when it is technically achievable. |
| Feltes (2013) for the AHA Indications for cardiac catheterization and intervention in pediatric cardiac disease | Key points:  
• No controlled or RCTs of endovenous stents in pediatrics. Stents were adapted for use in the pulmonary arteries and systemic veins after repeated failure of dilation alone to provide sustained relief of systemic vein stenosis, and with favorable immediate and midterm results. |
Most favorable clinical experience has been with use of balloon-expandable stents.

There is a very low risk of venous rupture with stent implantation.

Indications for endovenous stent placement:

- Congenital or acquired, proximal or distal branches of the pulmonary artery when the vessel/patient is large enough to accommodate a stent that is capable of being dilated to the adult diameter of that vessel (Level of Evidence: B — Data derived from a single randomized trial or nonrandomized studies).
- Relief of significant systemic venous obstruction or stenosis of systemic veins inferior to the clavicles and above the inguinal ligaments (Level of Evidence: B).
- Acquired pulmonary vein stenosis after radiofrequency ablation (Level of Evidence: C — Consensus opinion of experts, cases studies, or standard of care), lung transplantation, or external compression (Level of Evidence: B).
- Isolated congenital pulmonary vein stenosis, postoperative pulmonary vein stenosis, after surgical repair for anomalous pulmonary vein connections (Level of Evidence: C).
- Not for pulmonary vein stenosis associated with other congenital heart disease that requires surgical intervention (Level of Evidence: C).

DeLeve (2009) for the American Association for the Study of Liver Diseases

Vascular disorders of the liver

Key points:

- Patients with focal or segmental obstruction of the hepatic venous outflow tract are theoretically eligible for recanalization.
- Shunt dysfunction may be related to stenosis of intrahepatic inferior vena cava (which is amenable to stenting), shunt stenosis (amenable to PTA and stenting), and shunt or portal vein thrombosis (amenable to in situ thrombolysis).
- Budd-Chiari syndrome: Check for a venous obstruction amenable to PTA/stenting in all symptomatic patients. Treat accordingly.

National Kidney Foundation (2006)

Hemodialysis adequacy, peritoneal dialysis adequacy, and vascular access

Key points:

- Prefer PTA for arteriovenous graft complication, including central vein stenosis. Stent placement should be considered for:
  - Acute elastic recoil of the vein (< 50% stenosis) after angioplasty.
  - The stenosis recurs within a 3-month period.
- If angioplasty of the same lesion is required more than two times within a 3-month period, the patient should be considered for surgical revision if the patient is a good surgical candidate. If angioplasty fails, stents may be useful in the following situations:
  - Surgically inaccessible lesion.
  - Contraindication to surgery.
  - Angioplasty-induced vascular rupture.

References

Professional society guidelines/other:


Peer-reviewed references:


CMS National Coverage Determinations (NCDs):


Local Coverage Determinations (LCDs):


Commonly submitted codes

Below are the most commonly submitted codes for the service(s)/item(s) subject to this policy. This is not an exhaustive list of codes. Providers are expected to consult the appropriate coding manuals and bill accordingly.
<table>
<thead>
<tr>
<th>CPT Code</th>
<th>Description</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>61635</td>
<td>Transcatheter placement of intravascular stent(s), intracranial (eg, atherosclerotic stenosis), including balloon angioplasty, if performed</td>
<td></td>
</tr>
<tr>
<td>61630</td>
<td>Balloon angioplasty, intracranial (eg, atherosclerotic stenosis), percutaneous</td>
<td></td>
</tr>
<tr>
<td>37246</td>
<td>Transluminal balloon angioplasty (except lower extremity artery(ies) for occlusive disease, intracranial, coronary, pulmonary, or dialysis circuit), open or percutaneous, including all imaging and radiological supervision and interpretation necessary to perform the angioplasty within the same artery; initial artery</td>
<td></td>
</tr>
<tr>
<td>37247</td>
<td>Transluminal balloon angioplasty (except lower extremity artery(ies) for occlusive disease, intracranial, coronary, pulmonary, or dialysis circuit), open or percutaneous, including all imaging and radiological supervision and interpretation necessary to perform the angioplasty within the same artery; each additional artery</td>
<td></td>
</tr>
<tr>
<td>37248</td>
<td>Transluminal balloon angioplasty (except dialysis circuit), open or percutaneous, including all imaging and radiological supervision and interpretation necessary to perform the angioplasty within the same vein; initial vein</td>
<td></td>
</tr>
<tr>
<td>37249</td>
<td>Transluminal balloon angioplasty (except dialysis circuit), open or percutaneous, including all imaging and radiological supervision and interpretation necessary to perform the angioplasty within the same vein; each additional vein</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ICD-10 Code</th>
<th>Description</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>I80.10-I80.13</td>
<td>Phlebitis and thrombophlebitis of femoral vein</td>
<td></td>
</tr>
<tr>
<td>I80.201-I80.209</td>
<td>Phlebitis and thrombophlebitis of other and unspecified deep vessels of lower extremities</td>
<td></td>
</tr>
<tr>
<td>I80.211-I80.219</td>
<td>Phlebitis and thrombophlebitis of iliac vein</td>
<td></td>
</tr>
<tr>
<td>I82.0</td>
<td>Budd-Chiari syndrome</td>
<td></td>
</tr>
<tr>
<td>I82.421-I82.429</td>
<td>Acute embolism and thrombosis of iliac vein</td>
<td></td>
</tr>
<tr>
<td>I82.521-I82.529</td>
<td>Chronic embolism and thrombosis of iliac vein</td>
<td></td>
</tr>
<tr>
<td>I87.0</td>
<td>Other Disorders of Veins</td>
<td></td>
</tr>
<tr>
<td>I87.1</td>
<td>Compression of vein</td>
<td></td>
</tr>
<tr>
<td>I87.2</td>
<td>Venous insufficiency (chronic) (peripheral)</td>
<td></td>
</tr>
<tr>
<td>I87.3</td>
<td>Chronic venous hypertension (idiopathic)</td>
<td></td>
</tr>
<tr>
<td>Q23</td>
<td>Congenital malformations of aortic &amp; mitral valves</td>
<td></td>
</tr>
<tr>
<td>Q25.6</td>
<td>Stenosis of pulmonary artery</td>
<td></td>
</tr>
<tr>
<td>Q25.79</td>
<td>Other congenital malformation of pulmonary artery</td>
<td></td>
</tr>
<tr>
<td>Q26.0</td>
<td>Congenital stenosis of vena cava</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HCPCS Level II Code</th>
<th>Description</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>0075T</td>
<td>Transcatheter placement of extracranial vertebral artery stent(s), including radiologic supervision and interpretation, open or percutaneous; initial vessel</td>
<td></td>
</tr>
<tr>
<td>HCPCS Level II Code</td>
<td>Description</td>
<td>Comments</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>0076T</td>
<td>Transcatheter placement of extracranial vertebral artery stent(s), including radiologic supervision and interpretation, open or percutaneous; each additional vessel</td>
<td></td>
</tr>
<tr>
<td>0191T</td>
<td>Insertion of anterior segment aqueous drainage device, without extraocular reservoir, internal approach, into the trabecular meshwork; initial insertion</td>
<td></td>
</tr>
</tbody>
</table>