

## Draft LCD for Non-coronary Vascular Stents (DL30798)

**Draft**

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### Contractor Information

**Draft Draft Draft**

#### Contractor Name

Wisconsin Physicians Service Insurance Corporation

#### Contractor Number

00951, 00952, 00953, 00954, 05101, 05201, 05301, 05401, 05102, 05202, 05302, 05402, 52280

#### Contractor Type

Carrier - MAC - FI

### LCD Information

**Draft Draft Draft**

#### LCD ID Number

DL30798

#### LCD Title

Non-coronary Vascular Stents

#### Contractor's Determination Number

CV-028

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#### CMS National Coverage Policy

Title XVIII of the Social Security Act section 1862(a)(1)(A). This section excludes coverage and payment for items and services that are not considered reasonable and necessary for the diagnosis and treatment of illness or injury or to improve the function of a malformed body member.

### **Oversight Region**

Region V

### **Projected Determination Effective Date**

### **Original Determination Ending Date**

### **Revision Effective Date**

### **Revision Ending Date**

### **Indications and Limitations of Coverage and/or Medical Necessity**

Indications and Limitations of Coverage and/or Medical Necessity

LCD Description

Vascular stents are currently used to enhance primary patency following percutaneous transluminal angioplasty (PTA) in arteries and veins, usually at the site of stenotic or occlusive lesions. Stents may be used as an adjunct to technically inadequate PTA or in cases where PTA alone will not be expected to provide a durable result.

Vascular stents are typically made of woven, laser-cut or welded metal (stainless steel or nitinol) that permits the device to be compressed onto a catheter. The specific engineering of an individual stent will create a design that is balloon-expandable or self-expanding when deployed into a vessel with the use of radiological guidance. Stenting procedures may be deployed when a stenotic or occluded arterial or venous segment can be traversed with a catheter directed technique from a remote percutaneous site. Once deployed, the device remains permanently in the vessel.

Endovascular graft placement in the abdominal aorta is a treatment option to open procedures in the treatment of Abdominal Aortic Aneurysm (AAA).

Endovascular graft placement in the thoracic aorta is a treatment option to open procedures in the treatment of Thoracic Aortic Aneurysm (TAA).

Indications and Limitations of Coverage and/or Medical Necessity

I. Percutaneous Placement of Peripheral Grafts/Stents

Peripheral vascular stenting may be covered for patients with symptomatic arterial and venous disease resulting in an occlusive or aneurysmal process. Historically, these vascular lesions would be treated with direct surgical intervention. These surgical procedures may have significant co-morbidities (cardiac, pulmonary, renal and anesthetic associated complications) in the patient population affected with such arterial or venous diseases. Appropriate symptoms at the designated vascular sites include:

#### A. Renal artery:

Renal artery stenting is covered for:

1. Uncontrolled malignant hypertension despite multidrug therapy who have been found to have unilateral or bilateral renal artery stenosis equal to or greater than 50% by nuclear medicine studies, renal artery duplex, or renal arteriography (conventional catheter angiography, CT angiography, or MR angiography). Stenting meets coverage criteria for ostial lesions, for angioplasty with sub-optimal results, and for dissection. It is also met for patients with renal artery stenosis of < 50%, and suspected renovascular malignant hypertension. For patients with renal artery stenosis of < 50%, and suspected renovascular malignant hypertension, coverage criteria are met if renal vein renin studies indicate the hypertension is due to renal artery disease
2. Progressive renal insufficiency due to atherosclerotic stenosis of > 70%. Stenting meets coverage criteria for ostial lesions, for angioplasty with sub-optimal results, and for dissection. Data available to date suggests that in patients with abnormal renal function, treatment of hemodynamically significant unilateral or bilateral RAS is beneficial in improving and/or stabilizing renal function
3. Recurrent congestive heart failure, pulmonary edema, or coronary ischemia in the setting of stenosis of the renal artery(s) of > 60%. Stenting meets coverage criteria for ostial lesions, for angioplasty with suboptimal results, and for dissection. Cardiac syndromes attributable to RAS include exacerbations of congestive heart failure and coronary ischemia. Improving renal perfusion reduces renin production, which augments natriuresis and permits the use of angiotensin antagonists. Renal artery stenting in the setting of recurrent episodes of congestive heart failure and flash pulmonary edema has been shown to decrease the frequency of congestive heart failure, flash pulmonary edema, and the need for hospitalization in most patients.
4. Renal artery stenosis of > 50% in a transplanted kidney. Stenting meets coverage criteria for ostial lesions, for angioplasty with suboptimal results, and for dissection. PTA is the initial treatment of choice. Endovascular stent placement is used to treat suboptimal PTA result and to treat restenosis following PTA (reported restenosis occurs in 5%–30% of patients over a 6–8-month period).
5. There are no well-controlled prospective, randomized investigations to measure the relative risk and benefit of endovascular interventions (or associated medical therapies) in individuals with asymptomatic renal artery disease, and thus the role of such interventions remains controversial. Recommendations regarding the role of percutaneous revascularization of asymptomatic renal disease are made largely on the basis of expert opinion and are not based on evidence that treatment of asymptomatic RAS improves any renal or systemic outcome, including renal preservation, blood pressure, or cardiovascular morbidity or mortality. Therefore, these recommendations are still considered controversial and must be individualized for the patient by each treating physician. The recommendations will likely be modified once controlled prospective data become available.

However, it appears that untreated RAS does result in excess mortality. We will cover renal atherosclerosis (ICD-9 code 440.1) when there is "hemodynamically significant stenosis of greater than 50% "

#### B. Mesenteric vessels.

This includes acute mesenteric ischemia, chronic mesenteric ischemia, mesenteric thrombosis, dissection or any other vascular insufficiency resulting in gastrointestinal symptoms; stenting of the mesenteric vessels is covered when angioplasty of the vessels would not suffice and after the patient has had a thorough medical evaluation and management of symptoms, and for whom surgical intervention is the likely alternative. In these situations, PTA and stent placement should be considered an alternative to surgery and not an addition to medical management. Recent studies have shown that the clinical efficacy and low complication rate of visceral arterial stenting compare well with the known morbidity and mortality of open surgical management of such occlusive mesenteric diseases. PTA with stent support as necessary is being used with increasing frequency for the revascularization of chronic and acute mesenteric ischemia. Based on significantly lower in-hospital mortality and lower complications, PTA/S appears to be reasonable firstline therapy in selected patients, particularly in the setting of chronic mesenteric ischemia. PTA/S may be useful in selected patients with acute mesenteric ischemia and appropriate anatomy.

#### C. Lower Extremity Arteries (iliac, femoral, popliteal):

Lifestyle limiting claudication, ischemic rest pain, nonhealing tissue ulceration, focal gangrene, dissection, impending failure of a lower extremity bypass graft.

The American Heart Association guidelines recommend endovascular therapy (including stent support, either as a primary intervention or in the setting of suboptimal angioplasty) for symptoms that interfere with job performance or lifestyle and who have had an inadequate response to exercise or pharmacologic therapy, as long as it is suggested that there is a reasonable likelihood of symptomatic improvement and the risk–benefit ratio is very high.

Stents can be useful in the iliac, femoral, popliteal, and tibial arteries as salvage therapy for suboptimal or failed result from angioplasty (e.g., persistent translesional gradient, residual diameter stenosis greater than 30%, or flow limiting dissection).

#### D. Hemodialysis Access graft/fistula: Stenosis, restenosis, and occlusion

A study by Vogel et al suggests that nitinol stents are safe and effective for treating dialysis access venous stenoses (central and peripheral) that are resistant to standard angioplasty.

#### E. Superior Vena Cava Superior vena cava syndrome and venous occlusions:

Superior vena cava syndrome, post radiation venous stenosis, and congenital stenosis, or webs, extrinsic venous compression and symptomatic post-traumatic venous stenoses.

A study by Nicholson et al suggests that percutaneous stenting in the setting of malignant superior vena cava syndrome meets the requirements of a palliative procedure significantly better than radiation therapy and that it should be the procedure of first choice.

#### F. Brachiocephalic Arteries: Subclavian steal syndrome, upper extremity claudication, ischemic rest pain of the arms and hand, non-healing tissue ulceration, focal gangrene, and dissection.

Subclavian arterial stent implantation is associated with better 1-year patency than PTA due to improved technical success. In a review by van Hattum et al, PTA with or without stent placement in a stenotic or occlusive brachiocephalic artery was found to be a safe procedure with a high initial success rate. Selective stent placement probably improves long-term success. PTA with selective stent placement should be considered the preferred treatment option.

#### G. Iliac veins and Inferior Vena Cava:

Venous stenting is becoming more frequent. The most common usage is the treatment of iliac vein compression in the setting of deep venous thrombosis or symptomatic venous stasis (ex. iliac vein compression syndrome, i.e. May Thurner). Jong-Youn Kim et al experienced decreased recurrent thrombosis in those patients treated with stenting as opposed to PTA alone. An article published in JVIR by Patel et al concludes that in the setting of May Thurner Syndrome, the involved left common iliac vein invariably requires stent placement. The published literature to date argues that stenting is the preferred treatment for iliac compression in the setting of DVT or symptomatic venous stasis.

## H. Carotid Arteries

For national coverage requirements regarding carotid stents refer to the National Coverage Decision (NCD)

## II. ANEURYSMS:

An aneurysm can develop anywhere along the aorta, about 75% occur in the abdominal section. The rest occur in the section that runs through the thorax. Thoracic aortic aneurysms, including those that extend from the descending thoracic aorta into the upper abdomen (thoracoabdominal aneurysms), account for about 25% of aortic aneurysms.

Aortic aneurysms are classified by shape, location along the aorta, and how they are formed.

The wall of the aorta is made up of three layers: a thin inner layer of smooth cells called the endothelium, a muscular middle layer which has elastic fibers in it called the media, and a tough outer layer called the adventitia. When the walls of the aneurysm have all three layers, they are called true aneurysms. If the wall of the aneurysm has only the outer layer remaining, it is called a pseudoaneurysm. Pseudoaneurysms may occur as a result of trauma when the inner layers are torn apart.

Most abdominal aortic aneurysms are caused by atherosclerosis. Thoracic aorta dissections are caused by an intimal tear. Hypertension is seen in at least 80% of these patients. Specific etiologies include degeneration of the thoracic media, Marfan's syndrome, coarctation of the aorta (as seen in Turner's syndrome, etc.), trauma, association with bicuspid aortic valves, but not directly related to atherosclerotic disease of the aorta.

Intervention is needed when aneurysmal changes of the aorta and or associated arteries (iliac, renal etc.) pose a risk of rupture. Intervention then can be through open surgery or by endovascular placement of a prosthesis.

### A. Placement of Endovascular Prosthesis for Treatment of Abdominal Aortic Aneurysm (AAA)

1. Catheter delivery of an endovascular graft into the abdominal aorta and iliac arteries is a treatment alternative to open surgical replacement of the aneurysmal arteries. An endovascular device is composed of a fabric conduit supported with metallic components that are collapsed into a delivery system. It is introduced into the patient through surgical or percutaneous arterial access in the groin(s). Under angiographic guidance, the prosthesis is positioned to create a seal with a normal segment of arterial wall proximally and distally. When appropriately positioned, it is allowed to expand to full size and is anchored to the arterial wall with a variety of metal frameworks and/or attachment devices. The grafts may be composed of one or more modules that are positioned and docked to one another within the arterial system. Extensions of the graft and fastening hardware may be required to complete secure attachment of the devices to the arterial wall.

2. Very precise imaging of the patient's anatomy is required prior to delivery of an endovascular prosthesis as the device must be exactly the correct diameter and length to make a secure seal that will exclude the arterial blood flow from the aneurysm. Imaging is performed with digital computerized reconstruction arteriography, computerized tomography (radiographic and/or magnetic resonance) that allows multiple projections to fully appreciate the three dimensional configuration of the arterial tree. The arterial lumen may be imaged with intravascular ultrasound. Arterial embolization may be required to occlude side branches communicating with the aneurysm. Angioplasty may be used to enlarge the iliac arteries to permit delivery of the graft components.

3. Follow-up of an endovascular device is required to confirm that the device has not migrated and that the aneurysmal sac does not continue to enlarge. Follow-up studies also determine if there are endoleaks or other evidence of arterial flow in the excluded aneurysmal segment. The duration and intensity of follow-up will be determined when long-term series experiences with this technique are reported.

Recognized benefits of EVAR include reduced morbidity, ICU and hospital length of stay, and lower perioperative mortality, especially among elderly patients. This has led to the widespread adoption of this technology. In randomized prospective trials such as EVAR-1 trial and the DREAM trial were in-hospital mortality was 1.7% and 1.2% for EVAR and 6% and 4.6% for OSR, respectively.

In a recent analysis of 45,000 propensity score-matched Medicare beneficiaries treated by EVAR and OSR, mortality was significantly lower after EVAR (1.2% vs 4.8%; P  $<$  .001), with reduction in mortality most pronounced for those of advanced age (80 to 84 years).

## B. Placement of Endovascular Prosthesis for Treatment of Thoracic Aortic Aneurysm (TAA)

Aneurysms of the thoracic aorta can be effectively treated by endovascular stent-grafting, but this approach requires suitable lengths of normal aorta proximal and distal to the defect for device fixation. If a major arterial branch lies within the aneurysm, the repair is more complex and may involve concomitant surgical or endoluminal procedures to reroute blood flow to vital organs or prevent continued perfusion of the aneurysm sac.

Because thoracic aneurysms often involve the abdominal aorta to some extent, the applicability and complexity of endograft repair depends on the number of critical vessels arising from or immediately adjacent to the aneurysm.

Before the operation, the patient will be assessed for feasibility of endovascular repair. This will include assessment of the general medical condition and other coexisting diseases, the surgical and anesthetic risk of the operation and whether the vascular configuration is suitable for stent graft. For non-emergency cases, a detailed CT scan and angiogram of the thoracic aorta and its branches will usually be performed; the size of the iliac arteries in the pelvis and the femoral arteries in the groin regions will be measured. Other imaging methods like MRI and ultrasound may be used. For emergency cases, a CT scan may be the only pre-operative investigation performed; angiogram will only be performed just before the procedure.

Endovascular stent grafts may be considered medically necessary for the treatment of descending thoracic aortic aneurysms of 23-37mm of inner aortic diameter. Diameter specifications are based on the parameters identified for FDA approved use of the GORE TAG endoprosthesis.

Results are available from the first completed multicenter trial directed at gaining approval from the US Food and Drug Administration for the endovascular repair of descending thoracic aortic aneurysms. In this multicenter study, early outcomes utilizing endovascular stent grafts in the treatment of descending aortic aneurysms were very encouraging when compared with those of a well-matched surgical cohort.

Preliminary results utilizing TEVAR in the treatment for acute and chronic dissections reveal a reduced risk of paraplegia and lower mortality compared with open surgical treatment.

An endovascular approach for ruptured descending thoracic aorta reduces early morbidity, mortality, and duration of hospitalization, while providing equivalent late outcomes. These data support TEVAR emerging as the preferred therapy for patients presenting with descending aortic rupture.

## III. Conditions of Coverage

Coverage for above indications for non-coronary vascular stents depends on the use of a FDA approved stent. Several different stents are currently used in the medical community. Each device has specific indications described by the FDA for approved market uses. Stent placement is covered by Medicare only when an FDA approved stent is:

- used for the FDA approved indications, or
- used for the above indications supported by peer-reviewed medical literature.

A. Vascular stents are deployed either following suboptimal or failed percutaneous transluminal angioplasty (PTA) or as a planned adjunct to PTA (so-called primary stenting). Medical documentation for both circumstances is necessary.

A sub-optimal or failed PTA is defined as a technically successful dilation judged by the physician to be suboptimal or failed due to the presence of unfavorable lesion morphology such as:

1. An inadequate angiographic and/or hemodynamic result as defined by a 30% or greater residual stenosis post PTA, lesion recoil, or intimal flaps.
2. Flow-limiting dissections post PTA.
3. A 5-mm Hg or greater mean trans-stenotic pressure gradient post PTA.
4. Acute occlusion of the vessel post PTA.

B. A stent may be placed as a planned adjunct to PTA rather than in reaction to a failed PTA (so-called primary deployments). Primary stenting is likely to be performed for the following conditions.

1. Lesions unfavorable for primary PTA include those with:
  - a. significant calcification,
  - b. eccentricity,
  - c. extrinsic compression,
  - d. propensity for significant recoil,
  - e. potential PTA-induced vessel damage, including malignant and benign extrinsic venous obstruction, renal/visceral artery ostial stenosis, hemodialysis access stenosis
2. Chronic or acute arterial occlusions where there is risk of distal embolization.

C. A non-coronary intravascular stent(s) that carries an Investigational Device Exemption (IDE) may be covered under Medicare. Medicare coverage of IDE devices is predicated, in part, upon their status with the FDA. Payment will cease in the event a manufacturer loses its (or violates relevant IDE requirements necessitating FDA's withdrawal of) IDE approval. The FDA issues a special identifier number that corresponds to each device or stent(s) granted an IDE.

### Coding Information



#### Bill Type Codes:

**Contractors may specify Bill Types to help providers identify those Bill Types typically used to report this service. Absence of a Bill Type does not guarantee that the policy does not apply to that Bill Type. Complete absence of all Bill Types indicates that coverage is not influenced by Bill Type and the policy should be assumed to apply equally to all claims.**

11x	Hospital-inpatient (including Part A)
12x	Hospital-inpatient or home health visits (Part B only)
13x	Hospital-outpatient (HHA-A also) (under OPSS 13X must be used for ASC claims submitted for OPSS payment -- eff. 7/00)
83x	Special facility or ASC surgery-ambulatory surgical center (Discontinued for Hospitals Subject to Outpatient PPS; hospitals must use 13X for ASC claims submitted for OPSS payment -- eff. 7/00)

**Revenue Codes:**

**Contractors may specify Revenue Codes to help providers identify those Revenue Codes typically used to report this service. In most instances Revenue Codes are purely advisory; unless specified in the policy services reported under other Revenue Codes are equally subject to this coverage determination. Complete absence of all Revenue Codes indicates that coverage is not influenced by Revenue Code and the policy should be assumed to apply equally to all Revenue Codes.**

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032X	Radiology diagnostic-general classification
034X	Nuclear medicine-general classification
035X	Computed tomographic (CT) scan-general classification
040X	Other imaging services-general classification
061X	Magnetic resonance technology (MRT)-general classification
096X	Professional fees-general classification

**CPT/HCPCS Codes**

33880	ENDOVASCULAR REPAIR OF DESCENDING THORACIC AORTA (EG, ANEURYSM, PSEUDOANEURYSM, DISSECTION, PENETRATING ULCER, INTRAMURAL HEMATOMA, OR TRAUMATIC DISRUPTION); INVOLVING COVERAGE OF LEFT SUBCLAVIAN ARTERY ORIGIN, INITIAL ENDOPROTHESIS PLUS DESCENDING THORACIC AORTIC EXTENSION(S), IF REQUIRED, TO LEVEL OF CELIAC ARTERY ORIGIN
33881	ENDOVASCULAR REPAIR OF DESCENDING THORACIC AORTA (EG, ANEURYSM, PSEUDOANEURYSM, DISSECTION, PENETRATING ULCER, INTRAMURAL HEMATOMA, OR TRAUMATIC DISRUPTION); NOT INVOLVING COVERAGE OF LEFT SUBCLAVIAN ARTERY ORIGIN, INITIAL ENDOPROTHESIS PLUS DESCENDING THORACIC AORTIC EXTENSION(S), IF REQUIRED, TO LEVEL OF CELIAC ARTERY ORIGIN

33883 PLACEMENT OF PROXIMAL EXTENSION PROSTHESIS FOR ENDOVASCULAR REPAIR OF DESCENDING THORACIC AORTA (EG, ANEURYSM, PSEUDOANEURYSM, DISSECTION, PENETRATING ULCER, INTRAMURAL HEMATOMA, OR TRAUMATIC DISRUPTION); INITIAL EXTENSION

33884 PLACEMENT OF PROXIMAL EXTENSION PROSTHESIS FOR ENDOVASCULAR REPAIR OF DESCENDING THORACIC AORTA (EG, ANEURYSM, PSEUDOANEURYSM, DISSECTION, PENETRATING ULCER, INTRAMURAL HEMATOMA, OR TRAUMATIC DISRUPTION); EACH ADDITIONAL PROXIMAL EXTENSION (LIST SEPARATELY IN ADDITION TO CODE FOR PRIMARY PROCEDURE)

33886 PLACEMENT OF DISTAL EXTENSION PROSTHESIS(S) DELAYED AFTER ENDOVASCULAR REPAIR OF DESCENDING THORACIC AORTA

33889 OPEN SUBCLAVIAN TO CAROTID ARTERY TRANSPOSITION PERFORMED IN CONJUNCTION WITH ENDOVASCULAR REPAIR OF DESCENDING THORACIC AORTA, BY NECK INCISION, UNILATERAL

33891 BYPASS GRAFT, WITH OTHER THAN VEIN, TRANSCERVICAL RETROPHARYNGEAL CAROTID-CAROTID, PERFORMED IN CONJUNCTION WITH ENDOVASCULAR REPAIR OF DESCENDING THORACIC AORTA, BY NECK INCISION

34800 ENDOVASCULAR REPAIR OF INFRARENAL ABDOMINAL AORTIC ANEURYSM OR DISSECTION; USING AORTO-AORTIC TUBE PROSTHESIS

34802 ENDOVASCULAR REPAIR OF INFRARENAL ABDOMINAL AORTIC ANEURYSM OR DISSECTION; USING MODULAR BIFURCATED PROSTHESIS (1 DOCKING LIMB)

34803 ENDOVASCULAR REPAIR OF INFRARENAL ABDOMINAL AORTIC ANEURYSM OR DISSECTION; USING MODULAR BIFURCATED PROSTHESIS (2 DOCKING LIMBS)

34804 ENDOVASCULAR REPAIR OF INFRARENAL ABDOMINAL AORTIC ANEURYSM OR DISSECTION; USING UNIBODY BIFURCATED PROSTHESIS

34805 ENDOVASCULAR REPAIR OF INFRARENAL ABDOMINAL AORTIC ANEURYSM OR DISSECTION; USING AORTO-UNIILIAC OR AORTO-UNIFEMORAL PROSTHESIS

34808 ENDOVASCULAR PLACEMENT OF ILIAC ARTERY OCCLUSION DEVICE (LIST SEPARATELY IN ADDITION TO CODE FOR PRIMARY PROCEDURE)

34812 OPEN FEMORAL ARTERY EXPOSURE FOR DELIVERY OF ENDOVASCULAR PROSTHESIS, BY GROIN INCISION, UNILATERAL

34813 PLACEMENT OF FEMORAL-FEMORAL PROSTHETIC GRAFT DURING ENDOVASCULAR AORTIC ANEURYSM REPAIR (LIST SEPARATELY IN ADDITION TO CODE FOR PRIMARY PROCEDURE)

34820 OPEN ILIAC ARTERY EXPOSURE FOR DELIVERY OF ENDOVASCULAR PROSTHESIS OR ILIAC OCCLUSION DURING ENDOVASCULAR THERAPY, BY ABDOMINAL OR RETROPERITONEAL INCISION, UNILATERAL

34825 PLACEMENT OF PROXIMAL OR DISTAL EXTENSION PROSTHESIS FOR ENDOVASCULAR REPAIR OF INFRARENAL ABDOMINAL AORTIC OR ILIAC ANEURYSM, FALSE ANEURYSM, OR DISSECTION; INITIAL VESSEL

34826 PLACEMENT OF PROXIMAL OR DISTAL EXTENSION PROSTHESIS FOR ENDOVASCULAR REPAIR OF INFRARENAL ABDOMINAL AORTIC OR ILIAC ANEURYSM, FALSE ANEURYSM, OR DISSECTION; EACH ADDITIONAL VESSEL (LIST SEPARATELY IN ADDITION TO CODE FOR PRIMARY PROCEDURE)

34830 OPEN REPAIR OF INFRARENAL AORTIC ANEURYSM OR DISSECTION, PLUS REPAIR OF ASSOCIATED ARTERIAL TRAUMA, FOLLOWING UNSUCCESSFUL ENDOVASCULAR REPAIR; TUBE PROSTHESIS

34831 OPEN REPAIR OF INFRARENAL AORTIC ANEURYSM OR DISSECTION, PLUS REPAIR OF ASSOCIATED ARTERIAL TRAUMA, FOLLOWING UNSUCCESSFUL ENDOVASCULAR REPAIR; AORTO-BI-ILIAC PROSTHESIS

34832 OPEN REPAIR OF INFRARENAL AORTIC ANEURYSM OR DISSECTION, PLUS REPAIR OF ASSOCIATED ARTERIAL TRAUMA, FOLLOWING UNSUCCESSFUL ENDOVASCULAR REPAIR; AORTO-BIFEMORAL PROSTHESIS

34833 OPEN ILIAC ARTERY EXPOSURE WITH CREATION OF CONDUIT FOR DELIVERY OF AORTIC OR ILIAC ENDOVASCULAR PROSTHESIS, BY ABDOMINAL OR RETROPERITONEAL INCISION, UNILATERAL

34834

OPEN BRACHIAL ARTERY EXPOSURE TO ASSIST  
IN THE DEPLOYMENT OF AORTIC OR ILIAC  
ENDOVASCULAR PROSTHESIS BY ARM  
INCISION, UNILATERAL

34900

ENDOVASCULAR GRAFT PLACEMENT FOR  
REPAIR OF ILIAC ARTERY (EG, ANEURYSM,  
PSEUDOANEURYSM, ARTERIOVENOUS  
MALFORMATION, TRAUMA)

37205

TRANSCATHETER PLACEMENT OF AN  
INTRAVASCULAR STENT(S) (EXCEPT  
CORONARY, CAROTID, AND VERTEBRAL  
VESSEL), PERCUTANEOUS; INITIAL VESSEL

37206

TRANSCATHETER PLACEMENT OF AN  
INTRAVASCULAR STENT(S) (EXCEPT  
CORONARY, CAROTID, AND VERTEBRAL  
VESSEL), PERCUTANEOUS; EACH ADDITIONAL  
VESSEL (LIST SEPARATELY IN ADDITION TO  
CODE FOR PRIMARY PROCEDURE)

37207

TRANSCATHETER PLACEMENT OF AN  
INTRAVASCULAR STENT(S) (NON-CORONARY  
VESSEL), OPEN; INITIAL VESSEL

37208

TRANSCATHETER PLACEMENT OF AN  
INTRAVASCULAR STENT(S) (NON-CORONARY  
VESSEL), OPEN; EACH ADDITIONAL VESSEL  
(LIST SEPARATELY IN ADDITION TO CODE FOR  
PRIMARY PROCEDURE)

37799

UNLISTED PROCEDURE, VASCULAR SURGERY

75952

ENDOVASCULAR REPAIR OF INFRARENAL  
ABDOMINAL AORTIC ANEURYSM OR  
DISSECTION, RADIOLOGICAL SUPERVISION AND  
INTERPRETATION

75953

PLACEMENT OF PROXIMAL OR DISTAL  
EXTENSION PROSTHESIS FOR ENDOVASCULAR  
REPAIR OF INFRARENAL AORTIC OR ILIAC  
ARTERY ANEURYSM, PSEUDOANEURYSM, OR  
DISSECTION, RADIOLOGICAL SUPERVISION AND  
INTERPRETATION

75954

ENDOVASCULAR REPAIR OF ILIAC ARTERY  
ANEURYSM, PSEUDOANEURYSM,  
ARTERIOVENOUS MALFORMATION, OR  
TRAUMA, RADIOLOGICAL SUPERVISION AND  
INTERPRETATION

75956

ENDOVASCULAR REPAIR OF DESCENDING THORACIC AORTA (EG, ANEURYSM, PSEUDOANEURYSM, DISSECTION, PENETRATING ULCER, INTRAMURAL HEMATOMA, OR TRAUMATIC DISRUPTION); INVOLVING COVERAGE OF LEFT SUBCLAVIAN ARTERY ORIGIN, INITIAL ENDOPROSTHESIS PLUS DESCENDING THORACIC AORTIC EXTENSION(S), IF REQUIRED, TO LEVEL OF CELIAC ARTERY ORIGIN, RADIOLOGICAL SUPERVISION AND INTERPRETATION

75957

ENDOVASCULAR REPAIR OF DESCENDING THORACIC AORTA (EG, ANEURYSM, PSEUDOANEURYSM, DISSECTION, PENETRATING ULCER, INTRAMURAL HEMATOMA, OR TRAUMATIC DISRUPTION); NOT INVOLVING COVERAGE OF LEFT SUBCLAVIAN ARTERY ORIGIN, INITIAL ENDOPROSTHESIS PLUS DESCENDING THORACIC AORTIC EXTENSION(S), IF REQUIRED, TO LEVEL OF CELIAC ARTERY ORIGIN, RADIOLOGICAL SUPERVISION AND INTERPRETATION

75958

PLACEMENT OF PROXIMAL EXTENSION PROSTHESIS FOR ENDOVASCULAR REPAIR OF DESCENDING THORACIC AORTA (EG, ANEURYSM, PSEUDOANEURYSM, DISSECTION, PENETRATING ULCER, INTRAMURAL HEMATOMA, OR TRAUMATIC DISRUPTION), RADIOLOGICAL SUPERVISION AND INTERPRETATION

75959

PLACEMENT OF DISTAL EXTENSION PROSTHESIS(S) (DELAYED) AFTER ENDOVASCULAR REPAIR OF DESCENDING THORACIC AORTA, AS NEEDED, TO LEVEL OF CELIAC ORIGIN, RADIOLOGICAL SUPERVISION AND INTERPRETATION

### **ICD-9 Codes that Support Medical Necessity**

Renal (34833, 34834, 37205-37208, 75960)

403.00 - 403.91

HYPERTENSIVE CHRONIC KIDNEY DISEASE, MALIGNANT, WITH CHRONIC KIDNEY DISEASE STAGE I THROUGH STAGE IV, OR UNSPECIFIED - HYPERTENSIVE CHRONIC KIDNEY DISEASE, UNSPECIFIED, WITH CHRONIC KIDNEY DISEASE STAGE V OR END STAGE RENAL DISEASE

404.00 - 404.93

HYPERTENSIVE HEART AND CHRONIC KIDNEY DISEASE, MALIGNANT, WITHOUT HEART FAILURE AND WITH CHRONIC KIDNEY DISEASE STAGE I THROUGH STAGE IV, OR UNSPECIFIED - HYPERTENSIVE HEART AND CHRONIC KIDNEY DISEASE, UNSPECIFIED, WITH HEART FAILURE AND CHRONIC KIDNEY DISEASE STAGE V OR END STAGE RENAL DISEASE

405.01

MALIGNANT RENOVASCULAR HYPERTENSION

405.11

BENIGN RENOVASCULAR HYPERTENSION

405.91

UNSPECIFIED RENOVASCULAR HYPERTENSION

440.1

ATHEROSCLEROSIS OF RENAL ARTERY

442.1

ANEURYSM OF RENAL ARTERY

443.23

DISSECTION OF RENAL ARTERY

447.1

STRICTURE OF ARTERY

447.3

HYPERPLASIA OF RENAL ARTERY

453.3

EMBOLISM AND THROMBOSIS OF RENAL VEIN

557.0

ACUTE VASCULAR INSUFFICIENCY OF INTESTINE

557.1

CHRONIC VASCULAR INSUFFICIENCY OF INTESTINE

557.9

UNSPECIFIED VASCULAR INSUFFICIENCY OF INTESTINE

584.5 - 584.9

ACUTE KIDNEY FAILURE WITH LESION OF TUBULAR NECROSIS - ACUTE KIDNEY FAILURE, UNSPECIFIED

585.6

END STAGE RENAL DISEASE

588.1 - 588.9

NEPHROGENIC DIABETES INSIPIDUS - UNSPECIFIED DISORDER RESULTING FROM IMPAIRED RENAL FUNCTION

593.81

VASCULAR DISORDERS OF KIDNEY

747.62

RENAL VESSEL ANOMALY

996.81

COMPLICATIONS OF TRANSPLANTED KIDNEY

Lower Extremity Arteries (except tibial), (34833, 34834, 34900, 37205-37208, 75960)

249.70

SECONDARY DIABETES MELLITUS WITH PERIPHERAL CIRCULATORY DISORDERS, NOT STATED AS UNCONTROLLED, OR UNSPECIFIED

249.71

SECONDARY DIABETES MELLITUS WITH PERIPHERAL CIRCULATORY DISORDERS, UNCONTROLLED

250.70 - 250.73	DIABETES WITH PERIPHERAL CIRCULATORY DISORDERS, TYPE II OR UNSPECIFIED TYPE, NOT STATED AS UNCONTROLLED - DIABETES WITH PERIPHERAL CIRCULATORY DISORDERS, TYPE I [JUVENILE TYPE], UNCONTROLLED
440.0	ATHEROSCLEROSIS OF AORTA
440.21	ATHEROSCLEROSIS OF NATIVE ARTERIES OF THE EXTREMITIES WITH INTERMITTENT CLAUDICATION
440.22	ATHEROSCLEROSIS OF NATIVE ARTERIES OF THE EXTREMITIES WITH REST PAIN
440.23	ATHEROSCLEROSIS OF NATIVE ARTERIES OF THE EXTREMITIES WITH ULCERATION
440.24	ATHEROSCLEROSIS OF NATIVE ARTERIES OF THE EXTREMITIES WITH GANGRENE
440.29	OTHER ATHEROSCLEROSIS OF NATIVE ARTERIES OF THE EXTREMITIES
441.02	DISSECTION OF AORTA ABDOMINAL
442.2	ANEURYSM OF ILIAC ARTERY
442.3	ANEURYSM OF ARTERY OF LOWER EXTREMITY
443.22	DISSECTION OF ILIAC ARTERY
443.23	DISSECTION OF RENAL ARTERY
443.29	DISSECTION OF OTHER ARTERY
443.9	PERIPHERAL VASCULAR DISEASE UNSPECIFIED
444.21	ARTERIAL EMBOLISM AND THROMBOSIS OF UPPER EXTREMITY
444.22	ARTERIAL EMBOLISM AND THROMBOSIS OF LOWER EXTREMITY
444.81	EMBOLISM AND THROMBOSIS OF ILIAC ARTERY
444.89	EMBOLISM AND THROMBOSIS OF OTHER ARTERY
447.1	STRICTURE OF ARTERY
447.8	OTHER SPECIFIED DISORDERS OF ARTERIES AND ARTERIOLES
707.10 - 707.19	UNSPECIFIED ULCER OF LOWER LIMB - ULCER OF OTHER PART OF LOWER LIMB
729.5	PAIN IN LIMB
747.22	CONGENITAL ATRESIA AND STENOSIS OF AORTA

785.4	GANGRENE
Hemodialysis Access Graft/Fistula (37205-37208, 75960)	
440.31	ATHEROSCLEROSIS OF AUTOLOGOUS VEIN BYPASS GRAFT OF THE EXTREMITIES
440.32	ATHEROSCLEROSIS OF NONAUTOLOGOUS BIOLOGICAL BYPASS GRAFT OF THE EXTREMITIES
585.6	END STAGE RENAL DISEASE
996.1	MECHANICAL COMPLICATION OF OTHER VASCULAR DEVICE IMPLANT AND GRAFT
996.73	OTHER COMPLICATIONS DUE TO RENAL DIALYSIS DEVICE IMPLANT AND GRAFT
996.74	OTHER COMPLICATIONS DUE TO OTHER VASCULAR DEVICE IMPLANT AND GRAFT
Superior Vena Cava (37205-37208, 75960)	
459.2	COMPRESSION OF VEIN
747.49	OTHER ANOMALIES OF GREAT VEINS
784.2	SWELLING MASS OR LUMP IN HEAD AND NECK
990	EFFECTS OF RADIATION UNSPECIFIED
Brachiocephalic Arteries (including subclavian, except carotid, vertebral and cerebral) (37205-37208, 75960)	
435.2	SUBCLAVIAN STEAL SYNDROME
440.21	ATHEROSCLEROSIS OF NATIVE ARTERIES OF THE EXTREMITIES WITH INTERMITTENT CLAUDICATION
440.22	ATHEROSCLEROSIS OF NATIVE ARTERIES OF THE EXTREMITIES WITH REST PAIN
440.23	ATHEROSCLEROSIS OF NATIVE ARTERIES OF THE EXTREMITIES WITH ULCERATION
440.24	ATHEROSCLEROSIS OF NATIVE ARTERIES OF THE EXTREMITIES WITH GANGRENE
444.21	ARTERIAL EMBOLISM AND THROMBOSIS OF UPPER EXTREMITY
Abdominal Aorta (34800, 34802, 34803, 34804, 34805, 34808, 34813, 34820, 34825, 34826, 34830, 34831, 34832, 34833, 34834, 37205-37208, 75952, 75953, 75954, 75960)	
441.02	DISSECTION OF AORTA ABDOMINAL
441.3	ABDOMINAL ANEURYSM RUPTURED
441.4	ABDOMINAL ANEURYSM WITHOUT RUPTURE
442.1	ANEURYSM OF RENAL ARTERY
442.2	ANEURYSM OF ILIAC ARTERY
902.0	INJURY TO ABDOMINAL AORTA

Thoracic Aorta: 33880, 33881, 33883, 33884, 33886, 33889, 33891, 34820, 34833, 34834

441.01	DISSECTION OF AORTA THORACIC
441.03	DISSECTION OF AORTA THORACOABDOMINAL
441.1	THORACIC ANEURYSM RUPTURED
441.2	THORACIC ANEURYSM WITHOUT RUPTURE
441.6	THORACOABDOMINAL ANEURYSM RUPTURED
441.7	THORACOABDOMINAL ANEURYSM WITHOUT RUPTURE
901.0	INJURY TO THORACIC AORTA

### **Diagnoses that Support Medical Necessity**

### **ICD-9 Codes that DO NOT Support Medical Necessity**

### **ICD-9 Codes that DO NOT Support Medical Necessity Asterisk Explanation**

### **Diagnoses that DO NOT Support Medical Necessity**

### **General Information**



### **Documentation Requirements**

1. Documentation supporting the medical necessity of this item, such as ICD-9 codes, must be submitted with each claim. Claims submitted without such evidence will be denied as being not medically necessary.
2. Documentation may be required with claims for Endovascular Repair of AAA or TAA. See Coding Guidelines.

### **Appendices**

## Utilization Guidelines

\*- An asterisk indicates a revision to that section of the policy.

This policy does not reflect the sole opinion of the contractor or Contractor Medical Director. Although the final decision rests with the MAC contractor this policy was developed in cooperation with advisory groups which include representatives from various specialties, and adapted for the purpose of converting to MAC jurisdiction.

## Sources of Information and Basis for Decision

I. Society of Cardiovascular & Interventional Radiology (SCVIR), Government Affairs Committee; Society for Vascular Surgery (SVS); International Society for Cardiovascular Surgery-North American Chapter (ISCVS-NA)

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### **Advisory Committee Meeting Notes**

Meeting Date:

Wisconsin 02/12/2010

Illinois 01/13/2010

Michigan 01/14/2010

Minnesota 01/27/2010

J5 MAC 02/19/2010

**Start Date of Comment Period**

02/19/2010

**End Date of Comment Period**

**Start Date of Notice Period**

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This LCD has no Related Documents.

**LCD Attachments**

Coding and Billing Guidelines.

**Draft Contact**

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