Local Coverage Determination (LCD): Non-Invasive Vascular Studies (L27355)

Contractor Information

Contractor Name	Contract Number	Contract Type	Jurisdiction
National Government Services, Inc. opens in new window	14412	A and B and HHH MAC	J - K

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LCD Information

Document Information

LCD ID
L27355

LCD Title
Non-Invasive Vascular Studies

Jurisdiction
Rhode Island

Original Effective Date
For services performed on or after 11/15/2008

Revision Effective Date
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N/A

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N/A

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06/01/2011

Notice Period End Date
N/A

CMS National Coverage Policy Language quoted from Centers for Medicare and Medicaid Services (CMS), National Coverage Determinations (NCDs) and coverage provisions in interpretive manuals is italicized throughout the policy. NCDs and coverage provisions in interpretive manuals are not subject to the Local Coverage Determination (LCD) Review Process (42 CFR 405.860[b] and 42 CFR 426 [Subpart D]). In addition, an administrative law judge may not review an NCD. See Section 1869(f)(1)(A)(i) of the Social Security Act.

Unless otherwise specified, italicized text represents quotation from one or more of the following CMS sources:

Title XVIII of the Social Security Act (SSA):

Section 1862(a)(1)(A) excludes expenses incurred for items or services which are not reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member.

Section 1833(e) prohibits Medicare payment for any claim which lacks the necessary information to process the claim.

Code of Federal Regulations:

42 CFR, Section 410.32, indicates that diagnostic tests may only be ordered by the treating physician (or other treating practitioner acting within the scope of his or her license and Medicare requirements)who furnishes a consultation or treats a beneficiary for a specific medical problem and who uses the results in the management of the beneficiary's specific medical problem. Tests not ordered by the physician (or other qualified non-physician provider) who is treating the beneficiary are not reasonable and necessary (see Sec. 411.15(k)(1) of this chapter).

42 CFR, Section 410.33 provides guidelines for independent diagnostic testing facilities (IDTFs) including requirements for technician personnel and supervising physicians.

CMS Publications:

CMS Publication 100-02, *Medicare Benefit Policy Manual*, Chapter 11:

20.1 Noninvasive Vascular Studies for End Stage Renal Disease (ESRD) Patients

CMS Publication 100-03, *Medicare National Coverage Determinations Manual*, Chapter 1:

20.14 Plethysmography
20.17 Noninvasive Tests of Carotid Function
220.5 Ultrasound Diagnostic Procedures
220.21 Thermography

CMS Publication 100-08, *Medicare Program Integrity Manual*, Chapter 13:

13.5 Content of an LCD
13.5.1 Reasonable and Necessary Provisions in LCDs

Coverage Guidance
Coverage Indications, Limitations, and/or Medical Necessity

Abstract:

Non-invasive vascular studies utilize ultrasonic Doppler and physiologic principles to assess irregularities in blood flow in arterial and venous systems. The display may be a two dimensional image with spectral analysis and color flow or a plethysmographic recording. For the purposes of this policy, non-invasive vascular studies include duplex scans, physiologic studies and plethysmography.

Definitions:

Duplex scan: An ultrasonic scanning procedure with display of both two-dimensional structure and motion with time and Doppler ultrasonic signal documentation with spectrum analysis and/or color flow velocity mapping or imaging.

Physiologic studies: Functional measurement procedures that include Doppler ultrasound studies, blood pressure measurements, transcutaneous oxygen tension measurement, or plethysmography.

Plethysmography: *Plethysmography involves the measurement and recording (by one of several methods) of changes in the size of a body part as modified by the circulation of blood in that part. Plethysmography is of value*

as a noninvasive technique for diagnostic, preoperative and postoperative evaluation of peripheral artery disease in the internal medicine or vascular surgery practice. It is also a useful tool for the preoperative podiatric evaluation of the diabetic patient or one who has intermittent claudication or other signs or symptoms indicative of peripheral vascular disease which have a bearing on the patient's candidacy for foot surgery. (CMS Publication 100-03, *Medicare National Coverage Decisions Manual*, Chapter 1, Section 20.14)

Transcranial Doppler: Pulsed Doppler ultrasound is used to interrogate the intracranial vasculature of the Circle of Willis. Its value has been established in detecting severe stenosis in the major intracranial arteries, assessing patterns and extent of collateral circulation in patients with known regions of severe stenosis or occlusion and evaluating and following patients with vasoconstriction particularly after subarachnoid hemorrhage.

This local coverage determination specifies NGS policy for non-invasive vascular study testing.

INDICATIONS AND LIMITATIONS:

General Indications:

Non-invasive vascular studies are considered medically necessary if the ordering physician has reasonable expectation that their outcomes will potentially impact the clinical management of the patient. Services are deemed medically necessary when the following conditions are met:

- Significant signs/symptoms of arterial or venous disease are present;
- The information is necessary for appropriate medical and/or surgical management; and/or
- The test is not redundant of other diagnostic procedures that must be performed.

In general, non-invasive studies of the arterial system are utilized when invasive correction is contemplated. It is the responsibility of the physician/provider to ensure the medical necessity of procedures and documentation of such in the medical record.

Credentialing and Accreditation Standards

The accuracy of non-invasive vascular diagnostic studies depends on the knowledge, skill, and experience of the technologist and interpreter. Consequently, the physician performing and/or interpreting the study must be capable of demonstrating documented training and experience and maintain any applicable documentation. A vascular diagnostic study may be personally performed by a physician or a technologist.

The GAO Report to Congressional Committees entitled Medicare Ultrasound Procedures. Consideration of Payment Reforms and Technician Qualifications Requirements states that "Findings from several peer-reviewed studies, the Medicare Payment Advisory Commission, and ultrasound-related professional organizations support requiring that sonographers either have credentials or operate in facilities that are accredited, where specific quality standards apply. In some localities and practice settings, CMS or its contractors have required that sonographers either be credentialed or work in an accredited facility." (GAO-07-734)

The following requirements will be in effect for Part B providers in New York state (except Queens county) November 15, 2008. For other areas under National Government Services jurisdiction the requirements will be effective for all providers November 15, 2010, with the exception of Illinois (Part B providers), Maine, Massachusetts, Minnesota, New Hampshire, Rhode Island, Vermont and Wisconsin (Part B providers). For these states the requirement will take effect January 1, 2015.

- All non-invasive vascular diagnostic studies must be performed under at least one of the following settings: (1) performed by a physician who is competent in diagnostic vascular studies or under the general supervision of physicians who have demonstrated minimum entry level competency by being credentialed in vascular technology, or (2) performed by a technician who is certified in vascular technology, or (3) performed in facilities with laboratories accredited in vascular technology.

- Examples of appropriate personnel certification include, but are not limited to the Registered Physician in Vascular Interpretation (RPVI), Registered Vascular Technologist (RVT), the Registered Cardiovascular Technologist (RCVT), Registered Vascular Specialist (RVS), and the American Registry of Radiologic Technologists (ARRT) credentials in vascular technology. Appropriate laboratory accreditation includes the American College of Radiology (ACR) Vascular Ultrasound Program, and the Intersocietal Commission for the Accreditation of Vascular Laboratories (ICAVL).

- Additionally, transcutaneous oxygen tension measurements may be performed by individuals possessing the following credentials obtained from appropriate credentialing bodies, such as, but not limited to, the National Board of Diving and Hyperbaric Medicine Technology (NBDHMT): Certified Hyperbaric Technologist (CHT), or Certified Hyperbaric Registered Nurse (CHRN).

Please Note: 42 CFR Section 410.33, Independent Diagnostic Testing Facilities, includes credentialing requirements that supersede those above:

The supervising physician must evidence proficiency in the performance and interpretation of each type of diagnostic procedure performed by the IDTF. The proficiency may be documented by certification in specific medical specialties or subspecialties or by criteria established by the carrier for the service area in which the IDTF is located. See 42 CFR Section 410-33 (2) (b).

Nonphysician personnel. Any nonphysician personnel used by the IDTF to perform tests must demonstrate the basic qualifications to perform the tests in question and have training and proficiency as evidenced by licensure or certification by the appropriate State health or education department. In the absence of a State licensing board, the technician must be certified by an appropriate national credentialing body. The IDTF must maintain documentation available for review that these requirements are met. See 42 CFR Section 410-33 (2)(c).

General Limitations:

A referral must be on record for each non-invasive study performed. A referral for one type of study does not qualify as a referral for all tests.

Non-invasive vascular studies are considered medically necessary only if the outcome will potentially impact the clinical course of the patient. For example, if a patient is (or is not) proceeding on to other diagnostic and/or therapeutic procedures regardless of the outcome of non-invasive studies, and non-invasive vascular procedures will not provide any unique diagnostic information that would impact patient management, then the non-invasive procedures are not medically necessary. If it is obvious from the findings of the history and physical examination that the patient is going to proceed to angiography, then non-invasive vascular studies are not medically necessary.

Non-invasive vascular studies include patient care required to perform the studies, supervision of the studies, and interpretation of study results with hard copy output or imaging. Digital storage of imaging is acceptable.

The use of any Doppler device that produces a record that does not permit analysis of bidirectional vascular flow or that does not provide a hard copy printout is part of the physical exam of the vascular system and is not reported separately. (*CPT Expert*, 2004, 4th Edition)

The performance of simultaneous arterial and venous studies during the same encounter should be rare. Documentation should be available to support the medical necessity for both studies.

It is rarely necessary to perform cerebrovascular and upper extremity studies on the same day. Documentation supporting the need for both studies should be available for review.

Medicare does not pay for routine screening tests. ICD-9-CM diagnosis code V82.9 (Special screening of other conditions, unspecified condition) should be used to indicate screening tests performed in the absence of a specific sign, symptom, or complaint. Use of ICD-9-CM code V82.9 will result in the denial of claims as non-covered screening services.

I. Cerebrovascular Arterial Studies

Extracranial Arterial Studies (93880-93882)

Covered cerebrovascular arterial study testing methods include (real-time) duplex scans; and Doppler ultrasound waveform with spectral analysis.

Non-covered/non-reimbursed methods include testing methods that have not been found to be useful based on authoritative technological assessments or that are included as part of the physical examination.

Indications:

Cerebrovascular arterial studies may be considered medically necessary if one or more of the following signs and symptoms are present:

- Asymptomatic or symptomatic cervical bruits;
- Amaurosis fugax;
- Focal cerebral or ocular transient ischemic attacks (including but not limited to):
    - localizing symptoms, e.g., sensory loss; and/or
    - weakness of one side of the face; and/or
    - slurred speech; and/or
    - weakness of a limb;
- Syncope that is strongly suggestive of vertebrobasilar or bilateral carotid artery disease in etiology, as suggested by medical history;
- Recent history of a previous neurologic or cerebrovascular event;
- Before major cardiac and vascular surgery when a bruit is noted or there is a history of previous neurologic or cerebrovascular event;
- After carotid endarterectomy (outside the global period), or follow-up of previously documented stenoses;
- Pulsatile neck mass;
- Evaluation of blunt or penetrating neck trauma;
- Ocular microembolism (optic nerve/retinal arterial-Hollenhorst plaques/ocular);

Limitations: Studies may **not** be considered medically necessary if performed for the following signs and symptoms:

- Drop attack or syncope are rare indications usually seen with vertebrobasilar or bilateral carotid artery disease.
- Dizziness is not a typical indication unless associated with other localizing signs or symptoms. However, episodic dizziness with symptom characteristics typical of transient ischemic attacks may indicate medical necessity, especially when other more common sources, e.g., postural hypotension or transiently decreased cardiac output as demonstrated by cardiac event monitoring, have been previously excluded; and/or
- Headaches (including migraines).

Transcranial Doppler (TCD) Studies (93886 – 93893)

Transcranial Doppler (TCD) studies of the intracranial arteries and transcranial duplex imaging of extracranial arteries are approved methods of testing. The presence, location, and extent of disease can be evaluated by utilizing directional pulsed Doppler to estimate flow velocities and assess intracranial vessel hemodynamics and physiology.

Indications:

TCD studies are **allowed** for the following:

- Detection and evaluation of the hemodynamic effects of severe stenosis or occlusion of the extracranial (greater than or equal to 60% diameter reduction) and major basal intracranial arteries (greater than or equal to 50% diameter reduction);
- Detection and serial evaluation of cerebral vasospasm complicating subarachnoid hemorrhage;
- Evaluation of intracranial hemodynamic abnormalities in patients with suspected brain death;
- Intraoperative and perioperative monitoring of intracranial flow velocity and hemodynamic patterns during carotid endarterectomy, (although the professional component could only be reimbursed if it is provided during the operative procedure by a physician that is not a member of the operating team);
- Evaluation of cerebral embolization; and/or
- Assessing hemodynamic effects, patterns, and extent of collateral circulation in patients with known regions of severe stenosis or occlusion when necessary to care for the patient; and
- Assessing stroke risk in children aged two to sixteen with homozygous sickle cell disease; and
- As an alternative to an echocardiogram to detect residual right to left shunting after repair/closure of an intracardiac or intrapulmonary shunt.

Multiple cerebrovascular procedures may be allowed during the same encounter given the physician/provider can demonstrate medical necessity as documented in the patient's medical record. For example, physiologic studies and a duplex scan are allowed on the same date of service given the provider is able to document medical necessity, e.g., greater than or equal to 50% stenosis on duplex scan or significant symptoms as demonstrated by the indications for the study.

Limitations:

TCD studies are **not** indicated for:

- Evaluation of brain tumors;
- Assessment of familial and degenerative disease of the cerebrum, brainstem, cerebellum, basal ganglia and motor neurons;
- Evaluation of infectious and inflammatory conditions;
- Psychiatric disorders; and/or
- Epilepsy.

Transcranial Doppler (TCD) is considered investigational and not medically necessary for the following indications:

- Assessing patients with migraine;
- Monitoring during cardiopulmonary bypass and other cerebrovascular and cardiovascular interventions, and surgical procedures (except during carotid endarterectomy, as noted above);
- Evaluation of patients with dilated vasculopathies such as fusiform aneurysms;
- Assessing autoregulation, physiologic, and pharmacological responses of cerebral arteries; and/or
- Evaluating children with various vasculopathies, such as moyamoya disease and neurofibromatosis.

II. Peripheral Arterial Examinations (93922 - 93931)

Covered peripheral arterial study testing methods include duplex scans; Doppler waveform or spectral analysis; volume, impedance or strain gauge plethysmography; and transcutaneous oxygen tension measurement.

Non-covered peripheral arterial study testing methods include thermography, mechanical oscillometry, inductance or capacitance plethysmography, photoelectric plethysmography, differential plethysmography, and light reflective rheography.

Indications:

Non-invasive peripheral arterial examinations, performed to establish the level and/or degree of arterial occlusive disease, are medically necessary if (1) significant signs and/or symptoms of possible limb ischemia are present **and** (2) the patient is a candidate for invasive/surgical therapeutic interventions. Acute ischemia is characterized by the sudden onset of severe pain, coldness, numbness and pallor of the extremity. Chronic ischemia can be manifested by intermittent claudication, pain at rest, diminished pulse, ulceration, and gangrene.

A routine history and physical examination, which includes ankle/brachial indices (ABIs), can readily document the presence or absence of ischemic disease in the majority of cases. It is not medically necessary to proceed beyond the physical examination for minor signs and symptoms such as hair loss, absence of a single pulse, relative coolness of a foot, shiny thin skin, or lack of toe nail growth unless related signs and/or symptoms are present which are severe enough to require possible invasive intervention.

An ABI is not a reimbursable procedure by itself; rather, ABI may be reimbursed when derived from a more comprehensive procedure which includes a permanent chart copy of the measured pressures and waveforms in the examined vessels. An ABI should be abnormal, e.g., <0.9 at rest, **and** must be accompanied by another appropriate indication before proceeding to more sophisticated or complete studies, **except** in patients with severe diabetes or uremia resulting in medial calcification as demonstrated by artifactually elevated ankle blood pressure.

Peripheral artery studies may be considered **medically necessary** if the following signs and symptoms are present:

- Claudication of such severity that it interferes significantly with the patient's occupation or lifestyle, or claudication with inability to stress the patient;
- Rest pain (typically including the forefoot), usually associated with absent pulses, which becomes increasingly severe with elevation and diminishes with placement of the leg in a dependent position;
- Tissue loss defined as gangrene or pre-gangrenous changes of the extremity, or ischemic ulceration of the extremity occurring in the absence of pulses;
- Aneurysmal disease;
- Evidence of thromboembolic events;

- Blunt or penetrating trauma (including complications of diagnostic and/or therapeutic procedures); and/or
- Follow-up of grafts or other vascular intervention

Pre-surgical conduit assessment of the upper extremity/radial artery(ies) may be performed prior to use in coronary artery bypass grafting (CABG) or as other arterial conduits.

Limitations:

Peripheral artery studies may **not** be considered medically necessary if only the following signs and symptoms are present:

- Continuous burning of the feet (considered to be a neurologic symptom);
- Leg pain, nonspecific (729.5) and pain in limb (729.5) as single diagnoses are too general to warrant further investigation unless they can be related to other signs and symptoms;
- Edema rarely occurs with arterial occlusive disease unless it is in the immediate postoperative period, in association with another inflammatory process or in association with rest pain; and/or
- Absence of pulses in minor arteries, e.g., dorsalis pedis or posterior tibial, in the absence of symptoms. The absence of pulses is not an indication to proceed beyond the physical examination unless it is related to other signs and/or symptoms.

Duplex scanning and physiologic studies may be reimbursed during the same encounter if the physiologic studies are abnormal and/or to evaluate vascular trauma, thromboembolic events or aneurysmal disease, if the physician/provider can document medical necessity in the patient's medical record.

In general, non-invasive studies of the arterial system are to be utilized when invasive correction is contemplated or severity of findings dictate non-invasive study follow-up, but not for following non-invasive medical treatment regimens. The latter may be followed with physical findings and/or progression or relief of signs and/or symptoms. Screening of the asymptomatic patient is not covered by Medicare.

III. Peripheral Venous Examinations (93965-93971)

Indications for venous examinations are separated into three major categories: deep vein thrombosis (DVT), chronic venous insufficiency, and vein mapping. Studies are medically necessary only if the patient is a candidate for anticoagulation, thrombolysis or invasive therapeutic procedure(s).

Since the signs and symptoms of arterial occlusive disease and venous disease are so divergent, the performance of simultaneous arterial and venous studies during the same encounter should be rare. Consequently, documentation clearly supporting the medical necessity of both procedures performed during the same encounter must be available in the patient's medical record.

<u>Deep Vein Thrombosis (DVT)</u>

The signs and/or symptoms of DVT are relatively non-specific; and due to the risk associated with pulmonary embolism (PE), objective testing is allowed in patients who are candidates for anticoagulation or invasive therapeutic procedures for the following:

- Clinical signs and/or symptoms of DVT including, but not limited to, edema, tenderness, inflammation, and/or erythema;
- Clinical signs and/or symptoms of pulmonary embolus (PE) including, but not limited to, hemoptysis, chest pain, and/or dyspnea;
- Unexplained lower extremity edema status, post major surgical procedures, trauma, other or progressive illness/condition; and/or
- Unexplained lower extremity pain, excluding pain of skeletal origin.

These studies are rarely considered medically necessary for the following:

- Bilateral limb edema in the presence of signs and/or symptoms of congestive heart failure, exogenous obesity and/or arthritis; and/or
- Follow-up of phlebitis unless signs/symptoms suggest possible extension of thrombus.

Chronic Venous Insufficiency

Chronic venous insufficiency may be divided into three categories: primary varicose veins, recurrent DVT, and post-thrombotic (post-phlebitic) syndrome. Peripheral venous studies may be indicated for the evaluation of:

- Venous function in patients with ulceration suspected to be secondary to venous insufficiency when documenting venous valvular incompetence prior to invasive therapeutic intervention;
- Varicose veins by themselves do not indicate medical necessity, but medical necessity may be indicated when they are accompanied by significant pain or stasis dermatitis; and/or
- Superficial thrombophlebitis involving the proximal thigh (to investigate whether there was thrombus at the saphenofemoral junction that would demand either anticoagulation or surgical ligation).

Vein Mapping

Mapping the saphenous veins prior to scheduled revascularization procedures is covered by Medicare when it is expected that an autologous vein will be used, but only if there is uncertainty regarding the availability of a suitable vein for by-pass.

Vein mapping is not always necessary as a routine pre-operative study but is medically reasonable when the patient's clinical evaluation indicates one of the following:

- Previous partial harvest of the vein;
- Previous thrombophlebitis or DVT in the leg;
- Severe varicose veins;
- Previous history of vein stripping, ligation, or sclerotherapy;
- Obesity to the degree it interferes with clinical determination;

Other examples must clearly be supported by the medical documentation.

Vein mapping may be performed prior to creating a dialysis fistula. Please see "VI. Vessel Mapping of Vessels for Hemodialysis Access (93970, 93971, 93990, G0365)."

IV. Visceral Vascular Studies (93975, 93976, 93978, 93979)

Indications:

This procedure is indicated in the evaluation and/or management of vascular disease involving vessels of the abdominal, pelvic, scrotal contents, and/or retroperitoneal organs.

Limitations:

Duplex scanning in the evaluation of an abdominal aortic aneurysm is of limited value unless there is a pulsatile abdominal mass and signs and symptoms of peripheral vascular disease are present. Follow-up of an abdominal aneurysm on a periodic basis using abdominal ultrasound rather than visceral vascular studies to determine growth and potential need for intervention is allowed.

Vascular studies are not the initial diagnostic modality for the evaluation of abdominal pain/tenderness. There must be a high index of suspicion that the pain is caused by a vascular disorder, such as mesentery ischemia.

Noninvasive vascular studies are medically necessary only if the outcome will potentially impact the clinical course of the patient. For example, if a patient is going to proceed on to other diagnostic and/or therapeutic procedures regardless of the outcome of noninvasive studies, noninvasive vascular procedures are usually not medically necessary. That is, if it is obvious from the findings of the history and physical examination that the patient is going to proceed to angiography, then noninvasive vascular studies may not be medically necessary.

V. Hemodialysis Access Examination (93990)

Indications:

Medicare will consider separate payment for vascular studies (CPT code 93990) on symptomatic ESRD patients, when Doppler flow studies are used to provide diagnostic information to determine the appropriate medical intervention. Medicare considers a Doppler flow study medically necessary when the beneficiary's dialysis access

site manifests signs or symptoms associated with vascular compromise, and when the results of this test are necessary to determine the clinical course of treatment.

Signs or symptoms in patients with ESRD of impending failure of the hemodialysis access site, **including:**

- Elevated venous pressure > 200mm Hg on a 200 cc/min. pump;
- Elevated recirculation of time of 12% or greater, and
- Low urea reduction rate < 60%
- An access with a palpable "water hammer" pulse on examination (which implies venous outflow obstruction)

VI. Vessel Mapping of Vessels for Hemodialysis Access (93970, 93971, G0365)

Indications:

Vessel mapping of vessels for hemodialysis access is considered for Medicare payment when it is performed preoperatively prior to creation of hemodialysis access using an autogenous hemodialysis conduit, including arterial inflow and venous outflow. The HCPCS level II code G0365 should be used for the initial autogenous access vessel mapping. The CPT codes 93970 and 93971 may be used for subsequent access mapping.

Limitations:

Medicare will limit payment to either a Doppler flow study (93990/G0365) or an angiogram (fistulogram, venogram, 75790 with 36145 or 75820 with 36005), but not both, unless documentation is provided to support the medical necessity for both studies.

> An example of a clinical situation demonstrating the need for both studies would be a scenario where a Doppler flow study demonstrates reduced flow (blood flow rate less than 800 cc/min or a decreased flow of 25% or greater from previous study), and the physician requires an arteriogram, to define the extent of the problem. The patient's medical record(s) must provide documentation supporting the need for more than one imaging study.

If the service is done for monitoring purposes, it is not covered under Part B. No separate payment for non-invasive vascular studies for monitoring the access site of an ESRD patient, whether coded as the access site or peripheral site, is permitted to any entity.

The technical component of HCPCS code G0365 and CPT code 93990 (modifier TC) performed in End-State Renal Disease (ESRD) facilities or for ESRD patients is included in the composite payment rate. This rate is a comprehensive payment that includes all services, equipment, supplies and certain laboratory tests and drugs that are necessary for dialysis treatment.

The professional component for the procedure (modifier 26) is included in the monthly capitation payment (MCP) if billed by the MCP physician. Physicians other than the MCP provider (or a member of his/her group of the same specialty) may bill separately for interpretations of tests.

Services performed on ESRD patients by entities outside the ESRD facility must bill the ESRD facility for payment of monitoring procedures.

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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.

011x Hospital Inpatient (Including Medicare Part A)

012x Hospital Inpatient (Medicare Part B only)
013x Hospital Outpatient
071x Clinic - Rural Health
072x Clinic - Hospital Based or Independent Renal Dialysis Center
073x Clinic - Freestanding
077x Clinic - Federally Qualified Health Center (FQHC)
085x Critical Access Hospital

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.

Revenue codes only apply to providers who bill these services to the Part A MAC. Revenue codes do not apply to physicians, other professionals and suppliers who bill these services to the Part B MAC.

Please note that not all revenue codes apply to every type of bill code. Providers are encouraged to refer to the FISS revenue code file for allowable bill types. Similarly, not all revenue codes apply to each CPT/HCPCS code. Providers are encouraged to refer to the FISS HCPCS file for allowable revenue codes.

All revenue codes billed on the inpatient claim for the dates of service in question may be subject to review.

0920 Other Diagnostic Services - General Classification
0921 Other Diagnostic Services - Peripheral Vascular Lab
0929 Other Diagnostic Services - Other Diagnostic Service
0960 Professional Fees - General Classification
0981 Professional Fees - Emergency Room Services
0982 Professional Fees - Outpatient Services
0983 Professional Fees - Clinic

CPT/HCPCS Codes
Group 1 Paragraph: Cerebrovascular Arterial Studies

Group 1 Codes:
93880 DUPLEX SCAN OF EXTRACRANIAL ARTERIES; COMPLETE BILATERAL STUDY
93882 DUPLEX SCAN OF EXTRACRANIAL ARTERIES; UNILATERAL OR LIMITED STUDY
93886 TRANSCRANIAL DOPPLER STUDY OF THE INTRACRANIAL ARTERIES; COMPLETE STUDY
93888 TRANSCRANIAL DOPPLER STUDY OF THE INTRACRANIAL ARTERIES; LIMITED STUDY
93890 TRANSCRANIAL DOPPLER STUDY OF THE INTRACRANIAL ARTERIES; VASOREACTIVITY STUDY
93892 TRANSCRANIAL DOPPLER STUDY OF THE INTRACRANIAL ARTERIES; EMBOLI DETECTION WITHOUT INTRAVENOUS MICROBUBBLE INJECTION
93893 TRANSCRANIAL DOPPLER STUDY OF THE INTRACRANIAL ARTERIES; EMBOLI DETECTION WITH INTRAVENOUS MICROBUBBLE INJECTION

Group 2 Paragraph: Extremity Arterial Studies

Group 2 Codes:
93922 LIMITED BILATERAL NONINVASIVE PHYSIOLOGIC STUDIES OF UPPER OR LOWER EXTREMITY ARTERIES, (EG, FOR LOWER EXTREMITY: ANKLE/BRACHIAL INDICES AT DISTAL POSTERIOR TIBIAL AND ANTERIOR TIBIAL/DORSALIS PEDIS ARTERIES PLUS BIDIRECTIONAL, DOPPLER WAVEFORM RECORDING AND ANALYSIS AT 1-2 LEVELS, OR ANKLE/BRACHIAL INDICES AT DISTAL POSTERIOR TIBIAL AND ANTERIOR TIBIAL/DORSALIS PEDIS ARTERIES PLUS VOLUME PLETHYSMOGRAPHY AT 1-2 LEVELS, OR ANKLE/BRACHIAL INDICES AT DISTAL POSTERIOR TIBIAL AND ANTERIOR TIBIAL/DORSALIS PEDIS ARTERIES WITH, TRANSCUTANEOUS OXYGEN TENSION MEASUREMENT AT 1-2 LEVELS)
93923

COMPLETE BILATERAL NONINVASIVE PHYSIOLOGIC STUDIES OF UPPER OR LOWER EXTREMITY ARTERIES, 3 OR MORE LEVELS (EG, FOR LOWER EXTREMITY: ANKLE/BRACHIAL INDICES AT DISTAL POSTERIOR TIBIAL AND ANTERIOR TIBIAL/DORSALIS PEDIS ARTERIES PLUS SEGMENTAL BLOOD PRESSURE MEASUREMENTS WITH BIDIRECTIONAL DOPPLER WAVEFORM RECORDING AND ANALYSIS, AT 3 OR MORE LEVELS, OR ANKLE/BRACHIAL INDICES AT DISTAL POSTERIOR TIBIAL AND ANTERIOR TIBIAL/DORSALIS PEDIS ARTERIES PLUS SEGMENTAL VOLUME PLETHYSMOGRAPHY AT 3 OR MORE LEVELS, OR ANKLE/BRACHIAL INDICES AT DISTAL POSTERIOR TIBIAL AND ANTERIOR TIBIAL/DORSALIS PEDIS ARTERIES PLUS SEGMENTAL TRANSCUTANEOUS OXYGEN TENSION MEASUREMENTS AT 3 OR MORE LEVELS), OR SINGLE LEVEL STUDY WITH PROVOCATIVE FUNCTIONAL MANEUVERS (EG, MEASUREMENTS WITH POSTURAL PROVOCATIVE TESTS, OR MEASUREMENTS WITH REACTIVE HYPEREMIA)

93924 NONINVASIVE PHYSIOLOGIC STUDIES OF LOWER EXTREMITY ARTERIES, AT REST AND FOLLOWING TREADMILL STRESS TESTING, (IE, BIDIRECTIONAL DOPPLER WAVEFORM OR VOLUME PLETHYSMOGRAPHY RECORDING AND ANALYSIS AT REST WITH ANKLE/BRACHIAL INDICES IMMEDIATELY AFTER AND AT TIMED INTERVALS FOLLOWING PERFORMANCE OF A STANDARDIZED PROTOCOL ON A MOTORIZED TREADMILL PLUS RECORDING OF TIME OF ONSET OF CLAUDICATION OR OTHER SYMPTOMS, MAXIMAL WALKING TIME, AND TIME TO RECOVERY) COMPLETE BILATERAL STUDY

93925 DUPLEX SCAN OF LOWER EXTREMITY ARTERIES OR ARTERIAL BYPASS GRAFTS; COMPLETE BILATERAL STUDY

93926 DUPLEX SCAN OF LOWER EXTREMITY ARTERIES OR ARTERIAL BYPASS GRAFTS; UNILATERAL OR LIMITED STUDY

93930 DUPLEX SCAN OF UPPER EXTREMITY ARTERIES OR ARTERIAL BYPASS GRAFTS; COMPLETE BILATERAL STUDY

93931 DUPLEX SCAN OF UPPER EXTREMITY ARTERIES OR ARTERIAL BYPASS GRAFTS; UNILATERAL OR LIMITED STUDY

Group 3 Paragraph: Extremity Venous Studies

Group 3 Codes:

93965 NONINVASIVE PHYSIOLOGIC STUDIES OF EXTREMITY VEINS, COMPLETE BILATERAL STUDY (EG, DOPPLER WAVEFORM ANALYSIS WITH RESPONSES TO COMPRESSION AND OTHER MANEUVERS, PHLEBORHEOGRAPHY, IMPEDANCE PLETHYSMOGRAPHY)

93970 DUPLEX SCAN OF EXTREMITY VEINS INCLUDING RESPONSES TO COMPRESSION AND OTHER MANEUVERS; COMPLETE BILATERAL STUDY

93971 DUPLEX SCAN OF EXTREMITY VEINS INCLUDING RESPONSES TO COMPRESSION AND OTHER MANEUVERS; UNILATERAL OR LIMITED STUDY

Group 4 Paragraph: Visceral Vascular Studies

Group 4 Codes:

93975 DUPLEX SCAN OF ARTERIAL INFLOW AND VENOUS OUTFLOW OF ABDOMINAL, PELVIC, SCROTAL CONTENTS AND/OR RETROPERITONEAL ORGANS; COMPLETE STUDY

93976 DUPLEX SCAN OF ARTERIAL INFLOW AND VENOUS OUTFLOW OF ABDOMINAL, PELVIC, SCROTAL CONTENTS AND/OR RETROPERITONEAL ORGANS; LIMITED STUDY

93978 DUPLEX SCAN OF AORTA, INFERIOR VENA CAVA, ILIAC VASCULATURE, OR BYPASS GRAFTS; COMPLETE STUDY

93979 DUPLEX SCAN OF AORTA, INFERIOR VENA CAVA, ILIAC VASCULATURE, OR BYPASS GRAFTS; UNILATERAL OR LIMITED STUDY

Group 5 Paragraph: Hemodialysis Access Studies

Group 5 Codes:

93970 DUPLEX SCAN OF EXTREMITY VEINS INCLUDING RESPONSES TO COMPRESSION AND OTHER MANEUVERS; COMPLETE BILATERAL STUDY

93971 DUPLEX SCAN OF EXTREMITY VEINS INCLUDING RESPONSES TO COMPRESSION AND OTHER MANEUVERS; UNILATERAL OR LIMITED STUDY

93990 DUPLEX SCAN OF HEMODIALYSIS ACCESS (INCLUDING ARTERIAL INFLOW, BODY OF ACCESS AND VENOUS OUTFLOW)

G0365 VESSEL MAPPING OF VESSELS 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)

ICD-9 Codes that Support Medical Necessity
Group 1 Paragraph: It is the responsibility of the provider to code to the highest level specified in the ICD-9-CM (e.g., to the fourth or fifth digit). The correct use of an ICD-9-CM code does not assure coverage of a service. The service must be reasonable and necessary in the specific case and must meet the criteria specified in this determination.

Cerebrovascular Evaluation (93880, 93882)

Use ICD-9-CM code 784.2 to report a pulsatile neck mass.
Use ICD-9-CM code 785.9 to report a carotid bruit.

Group 1 Codes:

342.00	FLACCID HEMIPLEGIA AND HEMIPARESIS AFFECTING UNSPECIFIED SIDE
342.01	FLACCID HEMIPLEGIA AND HEMIPARESIS AFFECTING DOMINANT SIDE
342.02	FLACCID HEMIPLEGIA AND HEMIPARESIS AFFECTING NONDOMINANT SIDE
342.10	SPASTIC HEMIPLEGIA AND HEMIPARESIS AFFECTING UNSPECIFIED SIDE
342.11	SPASTIC HEMIPLEGIA AND HEMIPARESIS AFFECTING DOMINANT SIDE
342.12	SPASTIC HEMIPLEGIA AND HEMIPARESIS AFFECTING NONDOMINANT SIDE
342.80	OTHER SPECIFIED HEMIPLEGIA AND HEMIPARESIS AFFECTING UNSPECIFIED SIDE
342.81	OTHER SPECIFIED HEMIPLEGIA AND HEMIPARESIS AFFECTING DOMINANT SIDE
342.82	OTHER SPECIFIED HEMIPLEGIA AND HEMIPARESIS AFFECTING NONDOMINANT SIDE
342.90	UNSPECIFIED HEMIPLEGIA AND HEMIPARESIS AFFECTING UNSPECIFIED SIDE
342.91	UNSPECIFIED HEMIPLEGIA AND HEMIPARESIS AFFECTING DOMINANT SIDE
342.92	UNSPECIFIED HEMIPLEGIA AND HEMIPARESIS AFFECTING NONDOMINANT SIDE
344.00	QUADRIPLEGIA UNSPECIFIED
344.01	QUADRIPLEGIA C1-C4 COMPLETE
344.02	QUADRIPLEGIA C1-C4 INCOMPLETE
344.03	QUADRIPLEGIA C5-C7 COMPLETE
344.04	QUADRIPLEGIA C5-C7 INCOMPLETE
344.09	OTHER QUADRIPLEGIA
344.1	PARAPLEGIA
344.2	DIPLEGIA OF UPPER LIMBS
344.30	MONOPLEGIA OF LOWER LIMB AFFECTING UNSPECIFIED SIDE
344.31	MONOPLEGIA OF LOWER LIMB AFFECTING DOMINANT SIDE
344.32	MONOPLEGIA OF LOWER LIMB AFFECTING NONDOMINANT SIDE
344.40	MONOPLEGIA OF UPPER LIMB AFFECTING UNSPECIFIED SIDE
344.41	MONOPLEGIA OF UPPER LIMB AFFECTING DOMINANT SIDE
344.42	MONOPLEGIA OF UPPER LIMB AFFECTING NONDOMINANT SDE
344.5	UNSPECIFIED MONOPLEGIA
362.30	RETINAL VASCULAR OCCLUSION UNSPECIFIED
362.31	CENTRAL RETINAL ARTERY OCCLUSION
362.32	RETINAL ARTERIAL BRANCH OCCLUSION
362.33	PARTIAL RETINAL ARTERIAL OCCLUSION
362.34	TRANSIENT RETINAL ARTERIAL OCCLUSION
362.35	CENTRAL RETINAL VEIN OCCLUSION
362.36	VENOUS TRIBUTARY (BRANCH) OCCLUSION OF RETINA
362.37	VENOUS ENGORGEMENT OF RETINA
362.84	RETINAL ISCHEMIA
368.10	SUBJECTIVE VISUAL DISTURBANCE UNSPECIFIED
368.11	SUDDEN VISUAL LOSS
368.12	TRANSIENT VISUAL LOSS
368.2	DIPLOPIA
368.40	VISUAL FIELD DEFECT UNSPECIFIED
368.41	SCOTOMA INVOLVING CENTRAL AREA
368.42	SCOTOMA OF BLIND SPOT AREA
368.43	SECTOR OR ARCUATE VISUAL FIELD DEFECTS
368.44	OTHER LOCALIZED VISUAL FIELD DEFECT
368.45	GENERALIZED VISUAL FIELD CONTRACTION OR CONSTRICTION
368.46	HOMONYMOUS BILATERAL FIELD DEFECTS

368.47 HETERONYMOUS BILATERAL FIELD DEFECTS
433.00 OCCLUSION AND STENOSIS OF BASILAR ARTERY WITHOUT CEREBRAL INFARCTION
433.01 OCCLUSION AND STENOSIS OF BASILAR ARTERY WITH CEREBRAL INFARCTION
433.10 OCCLUSION AND STENOSIS OF CAROTID ARTERY WITHOUT CEREBRAL INFARCTION
433.11 OCCLUSION AND STENOSIS OF CAROTID ARTERY WITH CEREBRAL INFARCTION
433.20 OCCLUSION AND STENOSIS OF VERTEBRAL ARTERY WITHOUT CEREBRAL INFARCTION
433.21 OCCLUSION AND STENOSIS OF VERTEBRAL ARTERY WITH CEREBRAL INFARCTION
433.30 OCCLUSION AND STENOSIS OF MULTIPLE AND BILATERAL PRECEREBRAL ARTERIES WITHOUT CEREBRAL INFARCTION
433.31 OCCLUSION AND STENOSIS OF MULTIPLE AND BILATERAL PRECEREBRAL ARTERIES WITH CEREBRAL INFARCTION
433.80 OCCLUSION AND STENOSIS OF OTHER SPECIFIED PRECEREBRAL ARTERY WITHOUT CEREBRAL INFARCTION
433.81 OCCLUSION AND STENOSIS OF OTHER SPECIFIED PRECEREBRAL ARTERY WITH CEREBRAL INFARCTION
433.90 OCCLUSION AND STENOSIS OF UNSPECIFIED PRECEREBRAL ARTERY WITHOUT CEREBRAL INFARCTION
433.91 OCCLUSION AND STENOSIS OF UNSPECIFIED PRECEREBRAL ARTERY WITH CEREBRAL INFARCTION
434.00 CEREBRAL THROMBOSIS WITHOUT CEREBRAL INFARCTION
434.01 CEREBRAL THROMBOSIS WITH CEREBRAL INFARCTION
434.10 CEREBRAL EMBOLISM WITHOUT CEREBRAL INFARCTION
434.11 CEREBRAL EMBOLISM WITH CEREBRAL INFARCTION
434.90 CEREBRAL ARTERY OCCLUSION UNSPECIFIED WITHOUT CEREBRAL INFARCTION
434.91 CEREBRAL ARTERY OCCLUSION UNSPECIFIED WITH CEREBRAL INFARCTION
435.0 BASILAR ARTERY SYNDROME
435.1 VERTEBRAL ARTERY SYNDROME
435.2 SUBCLAVIAN STEAL SYNDROME
435.3 VERTEBROBASILAR ARTERY SYNDROME
435.8 OTHER SPECIFIED TRANSIENT CEREBRAL ISCHEMIAS
435.9 UNSPECIFIED TRANSIENT CEREBRAL ISCHEMIA
437.7 TRANSIENT GLOBAL AMNESIA
442.81 ANEURYSM OF ARTERY OF NECK
442.82 ANEURYSM OF SUBCLAVIAN ARTERY
443.21 DISSECTION OF CAROTID ARTERY
443.24 DISSECTION OF VERTEBRAL ARTERY
443.29 DISSECTION OF OTHER ARTERY
445.89 ATHEROEMBOLISM OF OTHER SITE
446.5 GIANT CELL ARTERITIS
780.2 SYNCOPE AND COLLAPSE
780.4 DIZZINESS AND GIDDINESS
781.2 ABNORMALITY OF GAIT
781.3 LACK OF COORDINATION
781.4 TRANSIENT PARALYSIS OF LIMB
781.94 FACIAL WEAKNESS
782.0 DISTURBANCE OF SKIN SENSATION
784.2 SWELLING MASS OR LUMP IN HEAD AND NECK
784.3 APHASIA
784.51 DYSARTHRIA
784.52 FLUENCY DISORDER IN CONDITIONS CLASSIFIED ELSEWHERE
784.59 OTHER SPEECH DISTURBANCE
785.9 OTHER SYMPTOMS INVOLVING CARDIOVASCULAR SYSTEM
900.00 INJURY TO CAROTID ARTERY UNSPECIFIED
900.01 INJURY TO COMMON CAROTID ARTERY
900.02 INJURY TO EXTERNAL CAROTID ARTERY
900.03 INJURY TO INTERNAL CAROTID ARTERY
901.1 INJURY TO INNOMINATE AND SUBCLAVIAN ARTERIES
996.1 MECHANICAL COMPLICATION OF OTHER VASCULAR DEVICE IMPLANT AND GRAFT
996.71 OTHER COMPLICATIONS DUE TO HEART VALVE PROSTHESIS
996.72 OTHER COMPLICATIONS DUE TO OTHER CARDIAC DEVICE IMPLANT AND GRAFT
996.74 OTHER COMPLICATIONS DUE TO OTHER VASCULAR DEVICE IMPLANT AND GRAFT
997.02 IATROGENIC CEREBROVASCULAR INFARCTION OR HEMORRHAGE
998.2 ACCIDENTAL PUNCTURE OR LACERATION DURING A PROCEDURE NOT ELSEWHERE CLASSIFIED

V12.54 PERSONAL HISTORY OF TRANSIENT ISCHEMIC ATTACK (TIA), AND CEREBRAL INFARCTION WITHOUT RESIDUAL DEFICITS
V58.73 AFTERCARE FOLLOWING SURGERY OF THE CIRCULATORY SYSTEM NOT ELSEWHERE CLASSIFIED
V67.09 FOLLOW-UP EXAMINATION FOLLOWING OTHER SURGERY

Group 2 Paragraph: Cerebrovascular Evaluation (93886, 93888, 93890, 93892, 93893)

Group 2 Codes:
282.41 SICKLE-CELL THALASSEMIA WITHOUT CRISIS
282.42 SICKLE-CELL THALASSEMIA WITH CRISIS
282.60 SICKLE-CELL DISEASE UNSPECIFIED
282.61 HB-SS DISEASE WITHOUT CRISIS
282.62 HB-SS DISEASE WITH CRISIS
348.82 BRAIN DEATH
430 SUBARACHNOID HEMORRHAGE
433.00 OCCLUSION AND STENOSIS OF BASILAR ARTERY WITHOUT CEREBRAL INFARCTION
433.01 OCCLUSION AND STENOSIS OF BASILAR ARTERY WITH CEREBRAL INFARCTION
433.10 OCCLUSION AND STENOSIS OF CAROTID ARTERY WITHOUT CEREBRAL INFARCTION
433.11 OCCLUSION AND STENOSIS OF CAROTID ARTERY WITH CEREBRAL INFARCTION
433.20 OCCLUSION AND STENOSIS OF VERTEBRAL ARTERY WITHOUT CEREBRAL INFARCTION
433.21 OCCLUSION AND STENOSIS OF VERTEBRAL ARTERY WITH CEREBRAL INFARCTION
433.30 OCCLUSION AND STENOSIS OF MULTIPLE AND BILATERAL PRECEREBRAL ARTERIES WITHOUT CEREBRAL INFARCTION
433.31 OCCLUSION AND STENOSIS OF MULTIPLE AND BILATERAL PRECEREBRAL ARTERIES WITH CEREBRAL INFARCTION
433.80 OCCLUSION AND STENOSIS OF OTHER SPECIFIED PRECEREBRAL ARTERY WITHOUT CEREBRAL INFARCTION
433.81 OCCLUSION AND STENOSIS OF OTHER SPECIFIED PRECEREBRAL ARTERY WITH CEREBRAL INFARCTION
433.90 OCCLUSION AND STENOSIS OF UNSPECIFIED PRECEREBRAL ARTERY WITHOUT CEREBRAL INFARCTION
433.91 OCCLUSION AND STENOSIS OF UNSPECIFIED PRECEREBRAL ARTERY WITH CEREBRAL INFARCTION
434.00 CEREBRAL THROMBOSIS WITHOUT CEREBRAL INFARCTION
434.01 CEREBRAL THROMBOSIS WITH CEREBRAL INFARCTION
434.10 CEREBRAL EMBOLISM WITHOUT CEREBRAL INFARCTION
434.11 CEREBRAL EMBOLISM WITH CEREBRAL INFARCTION
434.90 CEREBRAL ARTERY OCCLUSION UNSPECIFIED WITHOUT CEREBRAL INFARCTION
434.91 CEREBRAL ARTERY OCCLUSION UNSPECIFIED WITH CEREBRAL INFARCTION
435.0 BASILAR ARTERY SYNDROME
435.1 VERTEBRAL ARTERY SYNDROME
435.3 VERTEBROBASILAR ARTERY SYNDROME
435.8 OTHER SPECIFIED TRANSIENT CEREBRAL ISCHEMIAS
435.9 UNSPECIFIED TRANSIENT CEREBRAL ISCHEMIA
V58.73 AFTERCARE FOLLOWING SURGERY OF THE CIRCULATORY SYSTEM NOT ELSEWHERE CLASSIFIED

Group 3 Paragraph: Extremity Arterial Evaluation (93922, 93923, 93924, 93925, 93926, 93930 and 93931):

Use ICD-9 code 789.09 to report groin pain.
Use ICD-9 code 785.9 to report a suspected popliteal artery aneurysm.

Group 3 Codes:
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 DIABETES WITH PERIPHERAL CIRCULATORY DISORDERS, TYPE II OR UNSPECIFIED TYPE, NOT STATED AS UNCONTROLLED
250.71 DIABETES WITH PERIPHERAL CIRCULATORY DISORDERS, TYPE I [JUVENILE TYPE], NOT STATED AS UNCONTROLLED
250.72

DIABETES WITH PERIPHERAL CIRCULATORY DISORDERS, TYPE II OR UNSPECIFIED TYPE, UNCONTROLLED
250.73 DIABETES WITH PERIPHERAL CIRCULATORY DISORDERS, TYPE I [JUVENILE TYPE], UNCONTROLLED
353.0 BRACHIAL PLEXUS LESIONS
435.2 SUBCLAVIAN STEAL SYNDROME
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
440.30 ATHEROSCLEROSIS OF UNSPECIFIED BYPASS GRAFT OF THE EXTREMITIES
440.31 ATHEROSCLEROSIS OF AUTOLOGOUS VEIN BYPASS GRAFT OF THE EXTREMITIES
440.32 ATHEROSCLEROSIS OF NONAUTOLOGOUS BIOLOGICAL BYPASS GRAFT OF THE EXTREMITIES
440.4 CHRONIC TOTAL OCCLUSION OF ARTERY OF THE EXTREMITIES
442.0 ANEURYSM OF ARTERY OF UPPER EXTREMITY
442.3 ANEURYSM OF ARTERY OF LOWER EXTREMITY
442.82 ANEURYSM OF SUBCLAVIAN ARTERY
443.0 RAYNAUD'S SYNDROME
443.1 THROMBOANGIITIS OBLITERANS (BUERGER'S DISEASE)
443.22 DISSECTION OF ILIAC ARTERY
443.29 DISSECTION OF OTHER ARTERY
443.81 PERIPHERAL ANGIOPATHY IN DISEASES CLASSIFIED ELSEWHERE
443.89 OTHER PERIPHERAL VASCULAR DISEASE
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
445.01 ATHEROEMBOLISM OF UPPER EXTREMITY
445.02 ATHEROEMBOLISM OF LOWER EXTREMITY
447.0 ARTERIOVENOUS FISTULA ACQUIRED
447.1 STRICTURE OF ARTERY
449 SEPTIC ARTERIAL EMBOLISM
707.10 UNSPECIFIED ULCER OF LOWER LIMB
707.11 ULCER OF THIGH
707.12 ULCER OF CALF
707.13 ULCER OF ANKLE
707.14 ULCER OF HEEL AND MIDFOOT
707.15 ULCER OF OTHER PART OF FOOT
707.19 ULCER OF OTHER PART OF LOWER LIMB
707.8 CHRONIC ULCER OF OTHER SPECIFIED SITES
729.81 SWELLING OF LIMB
785.4 GANGRENE
785.9 OTHER SYMPTOMS INVOLVING CARDIOVASCULAR SYSTEM
789.09 ABDOMINAL PAIN OTHER SPECIFIED SITE
903.00 INJURY TO AXILLARY VESSEL(S) UNSPECIFIED
903.01 INJURY TO AXILLARY ARTERY
903.1 INJURY TO BRACHIAL BLOOD VESSELS
903.2 INJURY TO RADIAL BLOOD VESSELS
903.3 INJURY TO ULNAR BLOOD VESSELS
903.4 INJURY TO PALMAR ARTERY
903.8 INJURY TO OTHER SPECIFIED BLOOD VESSELS OF UPPER EXTREMITY
903.9 INJURY TO UNSPECIFIED BLOOD VESSEL OF UPPER EXTREMITY
904.0 INJURY TO COMMON FEMORAL ARTERY
904.1 INJURY TO SUPERFICIAL FEMORAL ARTERY
904.40 INJURY TO POPLITEAL VESSEL(S) UNSPECIFIED
904.41 INJURY TO POPLITEAL ARTERY
904.50 INJURY TO TIBIAL VESSEL(S) UNSPECIFIED
904.51 INJURY TO ANTERIOR TIBIAL ARTERY
904.53 INJURY TO POSTERIOR TIBIAL ARTERY
904.6 INJURY TO DEEP PLANTAR BLOOD VESSELS

904.7 INJURY TO OTHER SPECIFIED BLOOD VESSELS OF LOWER EXTREMITY
904.8 INJURY TO UNSPECIFIED BLOOD VESSEL OF LOWER EXTREMITY
996.1 MECHANICAL COMPLICATION OF OTHER VASCULAR DEVICE IMPLANT AND GRAFT
996.62 INFECTION AND INFLAMMATORY REACTION DUE TO 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
997.2 PERIPHERAL VASCULAR COMPLICATIONS NOT ELSEWHERE CLASSIFIED
998.11 HEMORRHAGE COMPLICATING A PROCEDURE
998.12 HEMATOMA COMPLICATING A PROCEDURE
998.13 SEROMA COMPLICATING A PROCEDURE
998.2 ACCIDENTAL PUNCTURE OR LACERATION DURING A PROCEDURE NOT ELSEWHERE CLASSIFIED
V58.73 AFTERCARE FOLLOWING SURGERY OF THE CIRCULATORY SYSTEM NOT ELSEWHERE CLASSIFIED
V67.09 FOLLOW-UP EXAMINATION FOLLOWING OTHER SURGERY

Group 4 Paragraph: Extremity Venous Evaluation (93965, 93970 and 93971):

Group 4 Codes:
415.11 IATROGENIC PULMONARY EMBOLISM AND INFARCTION
415.12 SEPTIC PULMONARY EMBOLISM
415.13 SADDLE EMBOLUS OF PULMONARY ARTERY
415.19 OTHER PULMONARY EMBOLISM AND INFARCTION
416.2 CHRONIC PULMONARY EMBOLISM
451.0 PHLEBITIS AND THROMBOPHLEBITIS OF SUPERFICIAL VESSELS OF LOWER EXTREMITIES
451.11 PHLEBITIS AND THROMBOPHLEBITIS OF FEMORAL VEIN (DEEP) (SUPERFICIAL)
451.19 PHLEBITIS AND THROMBOPHLEBITIS OF OTHER
451.2 PHLEBITIS AND THROMBOPHLEBITIS OF LOWER EXTREMITIES UNSPECIFIED
451.81 PHLEBITIS AND THROMBOPHLEBITIS OF ILIAC VEIN
451.82 PHLEBITIS AND THROMBOPHLEBOTIS OF SUPERFICIAL VEINS OF UPPER EXTREMITIES
451.83 PHLEBITIS AND THROMBOPHLEBITIS OF DEEP VEINS OF UPPER EXTREMITIES
451.84 PHLEBITIS AND THROMBOPHLEBITIS OF UPPER EXTREMITIES UNSPECIFIED
451.89 PHLEBITIS AND THROMBOPHLEBITIS OF OTHER SITES
453.1 THROMBOPHLEBITIS MIGRANS
453.40 ACUTE VENOUS EMBOLISM AND THROMBOSIS OF UNSPECIFIED DEEP VESSELS OF LOWER EXTREMITY
453.41 ACUTE VENOUS EMBOLISM AND THROMBOSIS OF DEEP VESSELS OF PROXIMAL LOWER EXTREMITY
453.42 ACUTE VENOUS EMBOLISM AND THROMBOSIS OF DEEP VESSELS OF DISTAL LOWER EXTREMITY
453.51 CHRONIC VENOUS EMBOLISM AND THROMBOSIS OF DEEP VESSELS OF PROXIMAL LOWER EXTREMITY
453.52 CHRONIC VENOUS EMBOLISM AND THROMBOSIS OF DEEP VESSELS OF DISTAL LOWER EXTREMITY
453.6 VENOUS EMBOLISM AND THROMBOSIS OF SUPERFICIAL VESSELS OF LOWER EXTREMITY
453.71 CHRONIC VENOUS EMBOLISM AND THROMBOSIS OF SUPERFICIAL VEINS OF UPPER EXTREMITY
453.72 CHRONIC VENOUS EMBOLISM AND THROMBOSIS OF DEEP VEINS OF UPPER EXTREMITY
453.74 CHRONIC VENOUS EMBOLISM AND THROMBOSIS OF AXILLARY VEINS
453.75 CHRONIC VENOUS EMBOLISM AND THROMBOSIS OF SUBCLAVIAN VEINS
453.76 CHRONIC VENOUS EMBOLISM AND THROMBOSIS OF INTERNAL JUGULAR VEINS
453.81 ACUTE VENOUS EMBOLISM AND THROMBOSIS OF SUPERFICIAL VEINS OF UPPER EXTREMITY
453.82 ACUTE VENOUS EMBOLISM AND THROMBOSIS OF DEEP VEINS OF UPPER EXTREMITY
453.84 ACUTE VENOUS EMBOLISM AND THROMBOSIS OF AXILLARY VEINS
453.85 ACUTE VENOUS EMBOLISM AND THROMBOSIS OF SUBCLAVIAN VEINS
453.86 ACUTE VENOUS EMBOLISM AND THROMBOSIS OF INTERNAL JUGULAR VEINS
454.0 VARICOSE VEINS OF LOWER EXTREMITIES WITH ULCER
454.1 VARICOSE VEINS OF LOWER EXTREMITIES WITH INFLAMMATION
454.2 VARICOSE VEINS OF LOWER EXTREMITIES WITH ULCER AND INFLAMMATION
454.8 VARICOSE VEINS OF LOWER EXTREMITIES WITH OTHER COMPLICATIONS
459.10 POSTPHLEBETIC SYNDROME WITHOUT COMPLICATIONS
459.11 POSTPHLEBETIC SYNDROME WITH ULCER
459.12 POSTPHLEBETIC SYNDROME WITH INFLAMMATION
459.13 POSTPHLEBETIC SYNDROME WITH ULCER AND INFLAMMATION
459.19 POSTPHLEBETIC SYNDROME WITH OTHER COMPLICATION
459.2 COMPRESSION OF VEIN
459.30 CHRONIC VENOUS HYPERTENSION WITHOUT COMPLICATIONS

459.31 CHRONIC VENOUS HYPERTENSION WITH ULCER
459.32 CHRONIC VENOUS HYPERTENSION WITH INFLAMMATION
459.33 CHRONIC VENOUS HYPERTENSION WITH ULCER AND INFLAMMATION
459.39 CHRONIC VENOUS HYPERTENSION WITH OTHER COMPLICATION
670.30 PUERPERAL SEPTIC THROMBOPHLEBITIS, UNSPECIFIED AS TO EPISODE OF CARE OR NOT APPLICABLE
670.32 PUERPERAL SEPTIC THROMBOPHLEBITIS, DELIVERED, WITH MENTION OF POSTPARTUM COMPLICATION
670.34 PUERPERAL SEPTIC THROMBOPHLEBITIS, POSTPARTUM CONDITION OR COMPLICATION
671.20 SUPERFICIAL THROMBOPHLEBITIS COMPLICATING PREGNANCY AND THE PUERPERIUM UNSPECIFIED AS TO EPISODE OF CARE
671.21 SUPERFICIAL THROMBOPHLEBITIS WITH DELIVERY WITH OR WITHOUT ANTEPARTUM CONDITION
671.22 SUPERFICIAL THROMBOPHLEBITIS WITH DELIVERY WITH POSTPARTUM COMPLICATION
671.23 ANTEPARTUM SUPERFICIAL THROMBOPHLEBITIS
671.24 POSTPARTUM SUPERFICIAL THROMBOPHLEBITIS
671.30 DEEP PHLEBOTHROMBOSIS ANTEPARTUM UNSPECIFIED AS TO EPISODE OF CARE
671.31 DEEP PHLEBOTHROMBOSIS ANTEPARTUM WITH DELIVERY
671.33 DEEP PHLEBOTHROMBOSIS ANTEPARTUM
671.40 DEEP PHLEBOTHROMBOSIS POSTPARTUM UNSPECIFIED AS TO EPISODE OF CARE
671.42 DEEP PHLEBOTHROMBOSIS POSTPARTUM WITH DELIVERY
671.44 DEEP PHLEBOTHROMBOSIS POSTPARTUM
729.5 PAIN IN LIMB
729.81 SWELLING OF LIMB
747.63 UPPER LIMB VESSEL ANOMALY
747.64 LOWER LIMB VESSEL ANOMALY
782.2 LOCALIZED SUPERFICIAL SWELLING MASS OR LUMP
782.3 EDEMA
785.4 GANGRENE
786.00 RESPIRATORY ABNORMALITY UNSPECIFIED
786.05 SHORTNESS OF BREATH
786.30 HEMOPTYSIS, UNSPECIFIED
786.39 OTHER HEMOPTYSIS
786.50 UNSPECIFIED CHEST PAIN
786.52 PAINFUL RESPIRATION
786.59 OTHER CHEST PAIN
794.2 NONSPECIFIC ABNORMAL RESULTS OF FUNCTION STUDY OF PULMONARY SYSTEM
903.02 INJURY TO AXILLARY VEIN
903.1 INJURY TO BRACHIAL BLOOD VESSELS
903.2 INJURY TO RADIAL BLOOD VESSELS
903.3 INJURY TO ULNAR BLOOD VESSELS
904.2 INJURY TO FEMORAL VEINS
904.3 INJURY TO SAPHENOUS VEINS
904.40 INJURY TO POPLITEAL VESSEL(S) UNSPECIFIED
904.42 INJURY TO POPLITEAL VEIN
904.50 INJURY TO TIBIAL VESSEL(S) UNSPECIFIED
904.52 INJURY TO ANTERIOR TIBIAL VEIN
904.54 INJURY TO POSTERIOR TIBIAL VEIN
904.7 INJURY TO OTHER SPECIFIED BLOOD VESSELS OF LOWER EXTREMITY
904.8 INJURY TO UNSPECIFIED BLOOD VESSEL OF LOWER EXTREMITY
996.1 MECHANICAL COMPLICATION OF OTHER VASCULAR DEVICE IMPLANT AND GRAFT
996.62 INFECTION AND INFLAMMATORY REACTION DUE TO OTHER VASCULAR DEVICE IMPLANT AND GRAFT
996.73 OTHER COMPLICATIONS DUE TO RENAL DIALYSIS DEVICE IMPLANT AND GRAFT
997.2 PERIPHERAL VASCULAR COMPLICATIONS NOT ELSEWHERE CLASSIFIED
998.2 ACCIDENTAL PUNCTURE OR LACERATION DURING A PROCEDURE NOT ELSEWHERE CLASSIFIED
999.2 OTHER VASCULAR COMPLICATIONS OF MEDICAL CARE NOT ELSEWHERE CLASSIFIED
V12.51 PERSONAL HISTORY OF VENOUS THROMBOSIS AND EMBOLISM
V12.52 PERSONAL HISTORY OF THROMBOPHLEBITIS
V12.55 PERSONAL HISTORY OF PULMONARY EMBOLISM

Group 5 Paragraph: Vein Mapping for Dialysis Access (93970, 93971, G0365)

List the V72.83 (Other specified pre-operative examination) as the primary diagnosis. The secondary diagnoses should identify the reason for the study and/or findings.

Group 5 Codes:

451.2 PHLEBITIS AND THROMBOPHLEBITIS OF LOWER EXTREMITIES UNSPECIFIED
451.82 PHLEBITIS AND THROMBOPHLEBOTIS OF SUPERFICIAL VEINS OF UPPER EXTREMITIES
451.83 PHLEBITIS AND THROMBOPHLEBITIS OF DEEP VEINS OF UPPER EXTREMITIES
451.84 PHLEBITIS AND THROMBOPHLEBITIS OF UPPER EXTREMITIES UNSPECIFIED
451.89 PHLEBITIS AND THROMBOPHLEBITIS OF OTHER SITES
453.2 OTHER VENOUS EMBOLISM AND THROMBOSIS OF INFERIOR VENA CAVA
453.9 EMBOLISM AND THROMBOSIS OF UNSPECIFIED SITE
585.3 CHRONIC KIDNEY DISEASE, STAGE III (MODERATE)
585.4 CHRONIC KIDNEY DISEASE, STAGE IV (SEVERE)
585.5 CHRONIC KIDNEY DISEASE, STAGE V
585.6 END STAGE RENAL DISEASE
747.60 ANOMALY OF THE PERIPHERAL VASCULAR SYSTEM UNSPECIFIED SITE
785.9 OTHER SYMPTOMS INVOLVING CARDIOVASCULAR SYSTEM
996.1 MECHANICAL COMPLICATION OF OTHER VASCULAR DEVICE IMPLANT AND GRAFT
996.73 OTHER COMPLICATIONS DUE TO RENAL DIALYSIS DEVICE IMPLANT AND GRAFT

Group 6 Paragraph: Pre-surgical Conduit Mapping for Coronary Artery Bypass Graft Procedures (93930, 93931, 93965, 93970, and 93971)

List the V72.83 (Other specified pre-operative examination) as the primary diagnosis. The secondary diagnoses should identify the reason for the study and/or findings.

Group 6 Codes:

410.00 ACUTE MYOCARDIAL INFARCTION OF ANTEROLATERAL WALL EPISODE OF CARE UNSPECIFIED
410.01 ACUTE MYOCARDIAL INFARCTION OF ANTEROLATERAL WALL INITIAL EPISODE OF CARE
410.02 ACUTE MYOCARDIAL INFARCTION OF ANTEROLATERAL WALL SUBSEQUENT EPISODE OF CARE
410.10 ACUTE MYOCARDIAL INFARCTION OF OTHER ANTERIOR WALL EPISODE OF CARE UNSPECIFIED
410.11 ACUTE MYOCARDIAL INFARCTION OF OTHER ANTERIOR WALL INITIAL EPISODE OF CARE
410.12 ACUTE MYOCARDIAL INFARCTION OF OTHER ANTERIOR WALL SUBSEQUENT EPISODE OF CARE
410.20 ACUTE MYOCARDIAL INFARCTION OF INFEROLATERAL WALL EPISODE OF CARE UNSPECIFIED
410.21 ACUTE MYOCARDIAL INFARCTION OF INFEROLATERAL WALL INITIAL EPISODE OF CARE
410.22 ACUTE MYOCARDIAL INFARCTION OF INFEROLATERAL WALL SUBSEQUENT EPISODE OF CARE
410.30 ACUTE MYOCARDIAL INFARCTION OF INFEROPOSTERIOR WALL EPISODE OF CARE UNSPECIFIED
410.31 ACUTE MYOCARDIAL INFARCTION OF INFEROPOSTERIOR WALL INITIAL EPISODE OF CARE
410.32 ACUTE MYOCARDIAL INFARCTION OF INFEROPOSTERIOR WALL SUBSEQUENT EPISODE OF CARE
410.40 ACUTE MYOCARDIAL INFARCTION OF OTHER INFERIOR WALL EPISODE OF CARE UNSPECIFIED
410.41 ACUTE MYOCARDIAL INFARCTION OF OTHER INFERIOR WALL INITIAL EPISODE OF CARE
410.42 ACUTE MYOCARDIAL INFARCTION OF OTHER INFERIOR WALL SUBSEQUENT EPISODE OF CARE
410.50 ACUTE MYOCARDIAL INFARCTION OF OTHER LATERAL WALL EPISODE OF CARE UNSPECIFIED
410.51 ACUTE MYOCARDIAL INFARCTION OF OTHER LATERAL WALL INITIAL EPISODE OF CARE
410.52 ACUTE MYOCARDIAL INFARCTION OF OTHER LATERAL WALL SUBSEQUENT EPISODE OF CARE
410.60 TRUE POSTERIOR WALL INFARCTION EPISODE OF CARE UNSPECIFIED
410.61 TRUE POSTERIOR WALL INFARCTION INITIAL EPISODE OF CARE
410.62 TRUE POSTERIOR WALL INFARCTION SUBSEQUENT EPISODE OF CARE
410.70 SUBENDOCARDIAL INFARCTION EPISODE OF CARE UNSPECIFIED
410.71 SUBENDOCARDIAL INFARCTION INITIAL EPISODE OF CARE
410.72 SUBENDOCARDIAL INFARCTION SUBSEQUENT EPISODE OF CARE
410.80 ACUTE MYOCARDIAL INFARCTION OF OTHER SPECIFIED SITES EPISODE OF CARE UNSPECIFIED
410.81 ACUTE MYOCARDIAL INFARCTION OF OTHER SPECIFIED SITES INITIAL EPISODE OF CARE
410.82 ACUTE MYOCARDIAL INFARCTION OF OTHER SPECIFIED SITES SUBSEQUENT EPISODE OF CARE
410.90 ACUTE MYOCARDIAL INFARCTION OF UNSPECIFIED SITE EPISODE OF CARE UNSPECIFIED
410.91 ACUTE MYOCARDIAL INFARCTION OF UNSPECIFIED SITE INITIAL EPISODE OF CARE
410.92 ACUTE MYOCARDIAL INFARCTION OF UNSPECIFIED SITE SUBSEQUENT EPISODE OF CARE

411.1 INTERMEDIATE CORONARY SYNDROME
411.81 ACUTE CORONARY OCCLUSION WITHOUT MYOCARDIAL INFARCTION
411.89 OTHER ACUTE AND SUBACUTE FORMS OF ISCHEMIC HEART DISEASE OTHER
413.9 OTHER AND UNSPECIFIED ANGINA PECTORIS
414.00 CORONARY ATHEROSCLEROSIS OF UNSPECIFIED TYPE OF VESSEL NATIVE OR GRAFT
414.01 CORONARY ATHEROSCLEROSIS OF NATIVE CORONARY ARTERY
414.02 CORONARY ATHEROSCLEROSIS OF AUTOLOGOUS VEIN BYPASS GRAFT
414.03 CORONARY ATHEROSCLEROSIS OF NONAUTOLOGOUS BIOLOGICAL BYPASS GRAFT
414.04 CORONARY ATHEROSCLEROSIS OF ARTERY BYPASS GRAFT
414.05 CORONARY ATHEROSCLEROSIS OF UNSPECIFIED BYPASS GRAFT
414.06 CORONARY ATHEROSCLEROSIS OF NATIVE CORONARY ARTERY OF TRANSPLANTED HEART
414.9 CHRONIC ISCHEMIC HEART DISEASE UNSPECIFIED

Group 7 Paragraph: Pre-surgical Vein-Mapping for Peripheral Arterial Bypass (93965, 93970 and 93971)

List the V72.83 (Other specified pre-operative examination) as the primary diagnosis. The secondary diagnoses should identify the reason for the study and/or findings.

Group 7 Codes:
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
440.30 ATHEROSCLEROSIS OF UNSPECIFIED BYPASS GRAFT OF THE EXTREMITIES
440.31 ATHEROSCLEROSIS OF AUTOLOGOUS VEIN BYPASS GRAFT OF THE EXTREMITIES
440.32 ATHEROSCLEROSIS OF NONAUTOLOGOUS BIOLOGICAL BYPASS GRAFT OF THE EXTREMITIES
440.4 CHRONIC TOTAL OCCLUSION OF ARTERY OF THE EXTREMITIES
442.2 ANEURYSM OF ILIAC ARTERY
442.3 ANEURYSM OF ARTERY OF LOWER EXTREMITY
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
786.30 HEMOPTYSIS, UNSPECIFIED
786.39 OTHER HEMOPTYSIS
904.52 INJURY TO ANTERIOR TIBIAL VEIN
904.53 INJURY TO POSTERIOR TIBIAL ARTERY
904.54 INJURY TO POSTERIOR TIBIAL VEIN
996.1 MECHANICAL COMPLICATION OF OTHER VASCULAR DEVICE IMPLANT AND GRAFT
996.62 INFECTION AND INFLAMMATORY REACTION DUE TO OTHER VASCULAR DEVICE IMPLANT AND GRAFT
996.74 OTHER COMPLICATIONS DUE TO OTHER VASCULAR DEVICE IMPLANT AND GRAFT

Group 8 Paragraph: Duplex Scan of Hemodialysis Access (CPT code 93990

Group 8 Codes:
996.73 OTHER COMPLICATIONS DUE TO RENAL DIALYSIS DEVICE IMPLANT AND GRAFT

Group 9 Paragraph: Visceral Vascular Studies (93975, 93976, 93978, 93979)

Use ICD-9 codes 401.0, 403.00, 403.01, and 405.01 to report accelerated hypertension.
Use ICD-9 code 456.8 for gastric varices.
Use ICD-9 code 785.9 to report an abdominal bruit.

Group 9 Codes:
155.0 MALIGNANT NEOPLASM OF LIVER PRIMARY
155.1 MALIGNANT NEOPLASM OF INTRAHEPATIC BILE DUCTS

302.72 PSYCHOSEXUAL DYSFUNCTION WITH INHIBITED SEXUAL EXCITEMENT
401.0 MALIGNANT ESSENTIAL HYPERTENSION
401.1 BENIGN ESSENTIAL HYPERTENSION
401.9 UNSPECIFIED ESSENTIAL HYPERTENSION
403.00 HYPERTENSIVE CHRONIC KIDNEY DISEASE, MALIGNANT, WITH CHRONIC KIDNEY DISEASE STAGE I THROUGH STAGE IV, OR UNSPECIFIED
403.01 HYPERTENSIVE CHRONIC KIDNEY DISEASE, MALIGNANT, WITH CHRONIC KIDNEY DISEASE STAGE V OR END STAGE RENAL DISEASE
403.10 HYPERTENSIVE CHRONIC KIDNEY DISEASE, BENIGN, WITH CHRONIC KIDNEY DISEASE STAGE I THROUGH STAGE IV, OR UNSPECIFIED
403.11 HYPERTENSIVE CHRONIC KIDNEY DISEASE, BENIGN, WITH CHRONIC KIDNEY DISEASE STAGE V OR END STAGE RENAL DISEASE
403.90 HYPERTENSIVE CHRONIC KIDNEY DISEASE, UNSPECIFIED, WITH CHRONIC KIDNEY DISEASE STAGE I THROUGH STAGE IV, OR UNSPECIFIED
403.91 HYPERTENSIVE CHRONIC KIDNEY DISEASE, UNSPECIFIED, WITH 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
415.11 IATROGENIC PULMONARY EMBOLISM AND INFARCTION
415.12 SEPTIC PULMONARY EMBOLISM
415.13 SADDLE EMBOLUS OF PULMONARY ARTERY
415.19 OTHER PULMONARY EMBOLISM AND INFARCTION
416.2 CHRONIC PULMONARY EMBOLISM
440.0 ATHEROSCLEROSIS OF AORTA
440.1 ATHEROSCLEROSIS OF RENAL ARTERY
441.01 DISSECTION OF AORTA THORACIC
441.02 DISSECTION OF AORTA ABDOMINAL
441.03 DISSECTION OF AORTA THORACOABDOMINAL
441.1 THORACIC ANEURYSM RUPTURED
441.2 THORACIC ANEURYSM WITHOUT RUPTURE
441.3 ABDOMINAL ANEURYSM RUPTURED
441.4 ABDOMINAL ANEURYSM WITHOUT RUPTURE
441.6 THORACOABDOMINAL ANEURYSM RUPTURED
441.7 THORACOABDOMINAL ANEURYSM WITHOUT RUPTURE
442.1 ANEURYSM OF RENAL ARTERY
442.2 ANEURYSM OF ILIAC ARTERY
442.3 ANEURYSM OF ARTERY OF LOWER EXTREMITY
442.83 ANEURYSM OF SPLENIC ARTERY
442.84 ANEURYSM OF OTHER VISCERAL ARTERY
443.22 DISSECTION OF ILIAC ARTERY
443.23 DISSECTION OF RENAL ARTERY
444.01 SADDLE EMBOLUS OF ABDOMINAL AORTA
444.09 OTHER ARTERIAL EMBOLISM AND THROMBOSIS OF ABDOMINAL AORTA
444.1 EMBOLISM AND THROMBOSIS OF THORACIC AORTA
444.81 EMBOLISM AND THROMBOSIS OF ILIAC ARTERY
444.89 EMBOLISM AND THROMBOSIS OF OTHER ARTERY
445.81 ATHEROEMBOLISM OF KIDNEY
446.7 TAKAYASU'S DISEASE
447.3 HYPERPLASIA OF RENAL ARTERY
447.4 CELIAC ARTERY COMPRESSION SYNDROME
447.70 AORTIC ECTASIA, UNSPECIFIED SITE
447.71 THORACIC AORTIC ECTASIA
447.72 ABDOMINAL AORTIC ECTASIA
447.73 THORACOABDOMINAL AORTIC ECTASIA
449 SEPTIC ARTERIAL EMBOLISM
451.81 PHLEBITIS AND THROMBOPHLEBITIS OF ILIAC VEIN
452 PORTAL VEIN THROMBOSIS
453.0 BUDD-CHIARI SYNDROME
453.2 OTHER VENOUS EMBOLISM AND THROMBOSIS OF INFERIOR VENA CAVA

453.3 EMBOLISM AND THROMBOSIS OF RENAL VEIN
456.0 ESOPHAGEAL VARICES WITH BLEEDING
456.1 ESOPHAGEAL VARICES WITHOUT BLEEDING
456.8 VARICES OF OTHER SITES
459.2 COMPRESSION OF VEIN
557.0 ACUTE VASCULAR INSUFFICIENCY OF INTESTINE
557.1 CHRONIC VASCULAR INSUFFICIENCY OF INTESTINE
570 ACUTE AND SUBACUTE NECROSIS OF LIVER
571.2 ALCOHOLIC CIRRHOSIS OF LIVER
571.5 CIRRHOSIS OF LIVER WITHOUT ALCOHOL
571.6 BILIARY CIRRHOSIS
572.1 PORTAL PYEMIA
572.2 HEPATIC ENCEPHALOPATHY
572.3 PORTAL HYPERTENSION
572.4 HEPATORENAL SYNDROME
584.5 ACUTE KIDNEY FAILURE WITH LESION OF TUBULAR NECROSIS
584.6 ACUTE KIDNEY FAILURE WITH LESION OF RENAL CORTICAL NECROSIS
584.7 ACUTE KIDNEY FAILURE WITH LESION OF RENAL MEDULLARY [PAPILLARY] NECROSIS
584.8 ACUTE KIDNEY FAILURE WITH OTHER SPECIFIED PATHOLOGICAL LESION IN KIDNEY
584.9 ACUTE KIDNEY FAILURE, UNSPECIFIED
589.0 UNILATERAL SMALL KIDNEY
589.1 BILATERAL SMALL KIDNEYS
593.81 VASCULAR DISORDERS OF KIDNEY
604.0 ORCHITIS EPIDIDYMITIS AND EPIDIDYMO-ORCHITIS WITH ABSCESS
604.90 ORCHITIS AND EPIDIDYMITIS UNSPECIFIED
604.91 ORCHITIS AND EPIDIDYMITIS IN DISEASES CLASSIFIED ELSEWHERE
607.82 VASCULAR DISORDERS OF PENIS
607.84 IMPOTENCE OF ORGANIC ORIGIN
608.20 TORSION OF TESTIS, UNSPECIFIED
608.21 EXTRAVAGINAL TORSION OF SPERMATIC CORD
608.22 INTRAVAGINAL TORSION OF SPERMATIC CORD
608.23 TORSION OF APPENDIX TESTIS
608.24 TORSION OF APPENDIX EPIDIDYMIS
608.83 VASCULAR DISORDERS OF MALE GENITAL ORGANS
608.86 EDEMA OF MALE GENITAL ORGANS
608.9 UNSPECIFIED DISORDER OF MALE GENITAL ORGANS
620.5 TORSION OF OVARY OVARIAN PEDICLE OR FALLOPIAN TUBE
620.8 OTHER NONINFLAMMATORY DISORDERS OF OVARY FALLOPIAN TUBE AND BROAD LIGAMENT
625.9 UNSPECIFIED SYMPTOM ASSOCIATED WITH FEMALE GENITAL ORGANS
670.30 PUERPERAL SEPTIC THROMBOPHLEBITIS, UNSPECIFIED AS TO EPISODE OF CARE OR NOT APPLICABLE
670.32 PUERPERAL SEPTIC THROMBOPHLEBITIS, DELIVERED, WITH MENTION OF POSTPARTUM COMPLICATION
670.34 PUERPERAL SEPTIC THROMBOPHLEBITIS, POSTPARTUM CONDITION OR COMPLICATION
671.30 DEEP PHLEBOTHROMBOSIS ANTEPARTUM UNSPECIFIED AS TO EPISODE OF CARE
671.31 DEEP PHLEBOTHROMBOSIS ANTEPARTUM WITH DELIVERY
671.33 DEEP PHLEBOTHROMBOSIS ANTEPARTUM
671.40 DEEP PHLEBOTHROMBOSIS POSTPARTUM UNSPECIFIED AS TO EPISODE OF CARE
671.42 DEEP PHLEBOTHROMBOSIS POSTPARTUM WITH DELIVERY
671.44 DEEP PHLEBOTHROMBOSIS POSTPARTUM
782.4 JAUNDICE UNSPECIFIED NOT OF NEWBORN
785.9 OTHER SYMPTOMS INVOLVING CARDIOVASCULAR SYSTEM
789.01 ABDOMINAL PAIN RIGHT UPPER QUADRANT
789.02 ABDOMINAL PAIN LEFT UPPER QUADRANT
789.03 ABDOMINAL PAIN RIGHT LOWER QUADRANT
789.04 ABDOMINAL PAIN LEFT LOWER QUADRANT
789.05 ABDOMINAL PAIN PERIUMBILIC
789.06 ABDOMINAL PAIN EPIGASTRIC
789.07 ABDOMINAL PAIN GENERALIZED
789.1 HEPATOMEGALY
789.2 SPLENOMEGALY

789.51 MALIGNANT ASCITES
789.59 OTHER ASCITES
790.4 NONSPECIFIC ELEVATION OF LEVELS OF TRANSAMINASE OR LACTIC ACID DEHYDROGENASE (LDH)
902.0 INJURY TO ABDOMINAL AORTA
902.10 INJURY TO INFERIOR VENA CAVA UNSPECIFIED
902.11 INJURY TO HEPATIC VEINS
902.19 INJURY TO OTHER SPECIFIED BRANCHES OF INFERIOR VENA CAVA
902.20 INJURY TO CELIAC AND MESENTERIC ARTERIES UNSPECIFIED
902.21 INJURY TO GASTRIC ARTERY
902.22 INJURY TO HEPATIC ARTERY
902.23 INJURY TO SPLENIC ARTERY
902.24 INJURY TO OTHER SPECIFIED BRANCHES OF CELIAC AXIS
902.25 INJURY TO SUPERIOR MESENTERIC ARTERY (TRUNK)
902.26 INJURY TO PRIMARY BRANCHES OF SUPERIOR MESENTERIC ARTERY
902.27 INJURY TO INFERIOR MESENTERIC ARTERY
902.29 INJURY TO OTHER CELIAC AND MESENTERIC ARTERIES
902.31 INJURY TO SUPERIOR MESENTERIC VEIN AND PRIMARY SUBDIVISIONS
902.32 INJURY TO INFERIOR MESENTERIC VEIN
902.33 INJURY TO PORTAL VEIN
902.34 INJURY TO SPLENIC VEIN
902.39 INJURY TO OTHER PORTAL AND SPLENIC VEINS
902.41 INJURY TO RENAL ARTERY
902.42 INJURY TO RENAL VEIN
902.49 INJURY TO OTHER RENAL BLOOD VESSELS
902.50 INJURY TO ILIAC VESSEL(S) UNSPECIFIED
902.51 INJURY TO HYPOGASTRIC ARTERY
902.52 INJURY TO HYPOGASTRIC VEIN
902.53 INJURY TO ILIAC ARTERY
902.54 INJURY TO ILIAC VEIN
902.55 INJURY TO UTERINE ARTERY
902.56 INJURY TO UTERINE VEIN
902.59 INJURY TO OTHER ILIAC BLOOD VESSELS
902.81 INJURY TO OVARIAN ARTERY
902.82 INJURY TO OVARIAN VEIN
902.87 INJURY TO MULTIPLE BLOOD VESSELS OF ABDOMEN AND PELVIS
902.89 INJURY TO OTHER SPECIFIED BLOOD VESSELS OF ABDOMEN AND PELVIS
908.4 LATE EFFECT OF INJURY TO BLOOD VESSEL OF THORAX ABDOMEN AND PELVIS
996.1 MECHANICAL COMPLICATION OF OTHER VASCULAR DEVICE IMPLANT AND GRAFT
996.74 OTHER COMPLICATIONS DUE TO OTHER VASCULAR DEVICE IMPLANT AND GRAFT
996.81 COMPLICATIONS OF TRANSPLANTED KIDNEY
996.82 COMPLICATIONS OF TRANSPLANTED LIVER
996.86 COMPLICATIONS OF TRANSPLANTED PANCREAS
996.89 COMPLICATIONS OF OTHER SPECIFIED TRANSPLANTED ORGAN
997.71 VASCULAR COMPLICATIONS OF MESENTERIC ARTERY
997.72 VASCULAR COMPLICATIONS OF RENAL ARTERY
997.79 VASCULAR COMPLICATIONS OF OTHER VESSELS
V42.0 KIDNEY REPLACED BY TRANSPLANT
V42.7 LIVER REPLACED BY TRANSPLANT
V42.83 PANCREAS REPLACED BY TRANSPLANT
V42.84 ORGAN OR TISSUE REPLACED BY TRANSPLANT INTESTINES
V43.4 BLOOD VESSEL REPLACED BY OTHER MEANS
V58.73 AFTERCARE FOLLOWING SURGERY OF THE CIRCULATORY SYSTEM NOT ELSEWHERE CLASSIFIED
V67.09 FOLLOW-UP EXAMINATION FOLLOWING OTHER SURGERY

ICD-9 Codes that DO NOT Support Medical Necessity
Paragraph: Not applicable

N/A

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General Information

Associated Information
Documentation Requirements:
The patient's medical record must contain documentation that fully supports the medical necessity for services included within this LCD. (See "Indications and Limitations of Coverage.") This documentation includes, but is not limited to, relevant medical history, physical examination, and results of pertinent diagnostic tests or procedures.

It is the responsibility of the physician/provider to ensure the medical necessity of procedures and to maintain records in the event that records are requested for a post-payment audit.

42 CFR §410.32 indicates that diagnostic tests, to be covered, must be ordered by the practitioner who treats the patient. The treating physician is the practitioner responsible for the treatment of the patient. He/she orders the test to use the results in the management of the beneficiary's specific medical problem(s). Consulting physicians may also order tests.

A referral for one non-invasive study is not a blanket referral for all studies. A referral must be on record for each non-invasive study performed.

Documentation must be provided supporting the need for more than one imaging study [Doppler flow (93990) or vessel mapping (G0365) and arteriogram (75790/75820)].

Providers of interpretations and the technical portion of the examination must be capable of demonstrating documented training and experience and maintain documentation for post-payment audit.

Appendices:
Not applicable

Utilization Guidelines:
Frequency of follow-up studies will be carefully monitored for medical necessity and it is the responsibility of the physician/provider to maintain documentation of medical necessity in the patient's medical record.

Guidelines for follow-up cerebrovascular arterial studies include:

- Stenosis of 20-49% (diameter reduction), an annual study;
- Stenosis of 50-79%, every six months;
- Stenosis of 80-99%, every 6 months if surgery not performed; and/or
- After carotid endarterectomy, repeat ipsilateral/unilateral examinations are allowable at six weeks, six months, and one year. During the first year, follow-up studies should be on the ipsilateral side unless signs and symptoms or previously identified disease in the contralateral carotid artery provide indications for a bilateral procedure.

If patients become symptomatic of carotid disease repeat duplex scans are allowed without regard to the above schedule.

Pre-surgical conduit mapping of the radial artery(ies) should only be accompanied by vein-mapping studies when the arterial studies demonstrate a non-acceptable conduit or an insufficient conduit is available for multiple bypass procedures.

In the immediate post-operative period, patients may be studied if re-established pulses are lost, become equivocal, or if the patient develops related signs and/or symptoms of ischemia with impending repeat intervention.

With regard to autogenous vein and synthetic lower extremity bypass surgeries, a study may be performed at three-month intervals during the first year, at six-month intervals during the second year, and annually thereafter. The frequency of medically necessary follow-up studies post-angioplasty is dictated by the vascular

distribution treated.

Sources of Information and Basis for Decision
This bibliography presents those sources that were obtained during the development of this policy. National Government Services is not responsible for the continuing viability of Web site addresses listed below.

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Revision History Information

Please note: Most Revision History entries effective on or before 01/24/2013 display with a Revision History Number of "R1" at the bottom of this table. However, there may be LCDs where these entries will display as a separate and distinct row.

Revision History Date	Revision History Number	Revision History Explanation	Reason(s) for Change
11/01/2014	R11	The LCD is revised to remove CPT code 93990 from Indications section VI (Vessel Mapping of Vessels for Hemodialysis Access). Coverage for CPT code 93990 is correctly defined in the Indications Section for Hemodialysis Access Examination.	• Typographical Error
09/01/2014	R10	This revision updates the NGS MAC numerical jurisdictional designation to the new MAC Lettered jurisdiction designation(s). No other changes were made to this LCD.	• Change to Lettered Jurisdiction Designation
09/01/2014	R9	Credentialing requirements have been revised for transcutaneous oxygen tension measurements to clarify that appropriate credentialing bodies are not limited to those listed. In addition, ICD-9 code 785.9 was added as payable for extremity arterial evaluation for suspected popliteal artery aneurysm.	• Request for Coverage by a Practitioner (Part B)
05/01/2014	R8	As a result of a Reconsideration Request, the LCD was revised to add ICD-9 code 446.5 (giant cell arteritis) to the payable diagnoses for CPT codes 93880 and 93882. Sources reviewed for the request have been added to the Sources of Information and Basis for Decision section. Removed Other Comments section from Indications and Limitations. No comment period required and none given.	• Reconsideration Request
12/01/2013	R7	The LCD was revised to add the effective date for credentialing requirements for Illinois (Part B providers), Maine, Massachusetts, Minnesota, New Hampshire, Rhode Island, Vermont and Wisconsin (Part B providers). No comment period required and none given.	• Other
10/25/2013	R6	10/25/2013: This LCD was revised to add the Jurisdiction K Maine, Massachusetts, New Hampshire, Rhode Island and Vermont Part B Contract Numbers 14112, 14212, 14312, 14412 and 14512. The CMS Statement of Work for the Jurisdiction K Medicare Administrative Contractor (MAC) requires that the contractor consolidate LCDs and retain the most clinically appropriate LCD within the jurisdiction. Coverage of each LCD begins when the state/contract number combination officially is integrated into the Jurisdiction. On the CMS Medicare Coverage Database, this date is known as either the Original Effective Date or the Revision Effective Date.	• Change in Assigned States or Affiliated Contract Numbers
10/18/2013	R5		N/A

Revision History Date	Revision History Number	Revision History Explanation	Reason(s) for Change
		10/18/2013: This LCD was revised to add the Jurisdiction K Maine, Massachusetts, New Hampshire, Rhode Island and Vermont Part A Contract Numbers 14111, 14211, 14311, 14411 and 14511. The CMS Statement of Work for the Jurisdiction K Medicare Administrative Contractor (MAC) requires that the contractor consolidate LCDs and retain the most clinically appropriate LCD within the jurisdiction. Coverage of each LCD begins when the state/contract number combination officially is integrated into the Jurisdiction. On the CMS Medicare Coverage Database, this date is known as either the Original Effective Date or the Revision Effective Date.	
09/07/2013	R4	09/07/2013 - This LCD was revised to add the Jurisdiction 6 Illinois Part B Contract Number 06102, Minnesota Part B Contract Number 06202 and Wisconsin Part B Contract Number 06302. The CMS Statement of Work for the Jurisdiction 6 Medicare Administrative Contractor (MAC) requires that the contractor consolidate LCDs and retain the most clinically appropriate LCD within the jurisdiction. Coverage of each LCD begins when the state/contract number combination officially is integrated into the Jurisdiction. On the CMS Medicare Coverage Database, this date is known as either the Original Effective Date or the Revision Effective Date.	N/A
08/10/2013	R3	08/10/2013 - This LCD was revised to add the Jurisdiction 6 Minnesota Part A Contract Number 06201. The CMS Statement of Work for the Jurisdiction 6 Medicare Administrative Contractor (MAC) requires that the contractor consolidate LCDs and retain the most clinically appropriate LCD within the jurisdiction. Coverage of each LCD begins when the state/contract number combination officially is integrated into the Jurisdiction. On the CMS Medicare Coverage Database, this date is known as either the **Original Effective Date or the Revision Effective Date.**	N/A
07/13/2013	R2	07/13/2013 - This LCD was revised to add the Jurisdiction 6 Illinois Part A Contract Number 06101 and Wisconsin MAC Part A Contract Number 06301. The CMS Statement of Work for the Jurisdiction 6 Medicare Administrative Contractor (MAC) requires that the contractor consolidate LCDs and retain the most clinically appropriate LCD within the jurisdiction. Coverage of each LCD begins when the state/contract number combination officially is integrated into the Jurisdiction. On the CMS Medicare Coverage Database, this date is known as either the Original Effective Date or the Revision Effective Date.	N/A
10/01/2012	R1	R11 (effective 10/01/2012): Annual LCD review per CMS Program Integrity Manual, Chapter 13, Section 13.4[C]. Content reviewed, and no changes required other than for minor formatting. No comment and notice periods required and none given. 08/20/2012 - In accordance with Section 911 of the Medicare Modernization Act of 2003, carrier number 00630 is removed from this LCD. Effective on this date, claims processing for Indiana Part B is performed by Wisconsin Physician Services, the Part A/Part B MAC contractor for this state. 07/23/2012 - In accordance with Section 911 of the Medicare Modernization Act of 2003, fiscal intermediary numbers 00130 and 00452 are removed from this LCD. Effective on this date, claims processing for Indiana and Michigan is performed by Wisconsin Physician Services, the Part A/Part B MAC contractor for these states. R10 (effective 01/01/2012): CPT code 93875 was deleted from coding Group 1 (Cerebrovascular Arterial Studies) and throughout the policy. Descriptors were updated for 93922 and 93923 in Group 2 (Extremity Arterial Studies). For CPT codes 93975-93979 ICD-9 codes 302.72 and 607.84 were added as payable diagnoses. The supplemental instructions article associated with this policy was similarly updated. No notice given and none required.	N/A

Revision History Date	Revision History Number	Revision History Explanation	Reason(s) for Change
		Typographical correction. ICD-9-CM code 440.0 (ATHEROSCLEROSIS OF AORTA) was incorrectly removed from the ICD-9 coding list for Visceral Vascular Studies (93975, 93976, 93978, 93979) and has been replaced. This code has been continuously covered. 10/17/2011 - In accordance with Section 911 of the Medicare Modernization Act of 2003, fiscal intermediary numbers 00160 and 00332 are removed from this LCD. Effective on this date, claims processing for Kentucky – Part A and Ohio –Part A is performed by CGS Administrators, LLC, the Part A/Part B MAC contractor for these states. R9 (effective 10/01/2011): LCD revised for annual ICD-9-CM code updates for 2012. The "ICD-9-CM Codes That Support Medical Necessity" section of the policy was revised to add code 348.82 for CPT codes 93886, 93888. 93890, 93892, and 93893. For the Extremity Venous Evaluation (93965, 93970, 93971) coding list new ICD-9 codes 415.13 and V12.55 were added. For the Visceral Vascular Studies (93975, 93976, 93978, 93979) coding list new ICD-9 code 415.13 was added. ICD-9- code 444.0 was deleted and replaced with codes 444.01 and 444.09. Additional updates were made. For the Cerebrovascular Evaluation (93875, 93883, 93882) coding list, ICD-9 codes 282.41, 282.42, 282.61, 282.62 were moved to the Cerebrovascular Evaluation (93886, 93888, 93890, 93892, 93893) coding list. ICD-9 code 348.89 was deleted and the statement "Use ICD-9-CM code 348.89 to report assessment of brain death." was removed. ICD-9 code 282.60 was added. ICD-9 codes 435.8 and 435.9 were added due to a provider reconsideration request. References reviewed for reconsideration request were added to the Sources of Information and Basis for Decision section. Minor changes were made to reflect current template language. No comment period required and none given. R8 (effective 06/01/2011): CPT codes 93970 and 93971 were added to title for the section for "VI. Vessel Mapping of Vessels for Hemodialysis Access" and when referenced throughout the policy. "VI. Vessel Mapping of Vessels for Hemodialysis Access" indications were updated to add the following: "The HCPCS level II code G0365 should be used for the initial autogenous access vessel mapping. The CPT codes 93970 and 93971 may be used for subsequent access surgery." The CPT/HCPCS section for "Hemodialysis Access Studies" was updated to add CPT codes 93970 and 93971 as acceptable procedure codes. The ICD-9 Codes that Support Medical Necessity section for "Vein Mapping for Dialysis Access (93970, 93971, G0365) was updated to include CPT codes 93970 and 93971 as applicable to the diagnosis list. The ICD-9 Codes that Support Medical Necessity section for "Extremity Arterial Evaluation (93922, 93923, 93924, 93925, 93926, 93930 and 93931)" was updated to add ICD-9-CM codes 729.81 and 789.09. The following instruction was added to the paragraph preceding the ICD-9-CM code list: "Use ICD-9 CM code 789.09 to report groin pain." Minor change made to reflect NGS template changes. No notice given and none required. 05/16/2011 - In accordance with Section 911 of the Medicare Modernization Act of 2003, fiscal intermediary number 00453 is removed from this LCD. Effective on this date, claims processing for Virginia and West Virginia is performed by Palmetto Government Benefits Administration, the Part A/Part B MAC contractor for these states.	

Revision History Date	Revision History Number	Revision History Explanation	Reason(s) for Change

04/30/2011 - In accordance with Section 911 of the Medicare Modernization Act of 2003, carrier number 00660 is removed from this LCD. Effective on this date, claims processing for Kentucky is performed by Cigna Government Services, the Part A/Part B MAC contractor for this state.

Correction published 10/07/2010 (effective 10/01/2010): ICD-9-CM code V67.09 has been removed from the ICD-9-CM code list for CPT codes 93886, 93888, 93890, 93892, and 93893 as it was inadvertently added in error.

R7 (effective 10/01/2010): LCD revised for annual ICD-9-CM code updates for 2011. The "ICD-9-CM Codes That Support Medical Necessity" section of the policy is expanded with the addition of new ICD-9 code 784.52 for CPT codes 93875, 93880, and 93882. ICD-9 code 786.3 was deleted and replaced with 786.30 and 786.39 for CPT codes 93965, 93970, 93971. The "ICD-9-CM Codes That Support Medical Necessity" section of the policy is expanded with the addition of new ICD-9 codes 447.70, 447.71, 447.72, and 447.73 for CPT codes 93975, 93976, 93978, and 93979. In addition, ICD-9 code V67.09 will be added to ICD-9 coding lists for CPT codes 93875, 93880, 93882 (Cerebrovascular Evaluation); CPT codes 93922, 93923, 93924, 93925, 93926, 93930, 93931 (Extremity Arterial Evaluation); and CPT codes 93975, 93976, 93978, 93979 (Visceral Vascular Studies) for claims submitted for the performance of medically necessary surgical or angioplasty follow up. Minor changes were made to reflect current template language. No comment period required and none given.

R6 (effective 08/01/2010): ICD-9 code 996.73 was added to the approved diagnosis list for Extremity Venous Evaluation (CPT codes 93965, 93970 and 93971). No notice given and none required.
R5 (effective 05/01/2010): The Credentialing and Accreditation Standards in the Indication and Limitations section were updated as follows: "Transcutaneous oxygen tension measurements may be performed by individuals possessing the following credentials obtained from the National Board of Diving and Hyperbaric Medicine Technology (NBDHMT): Certified Hyperbaric Technologist (CHT), or Certified Hyperbaric Registered Nurse (CHRN)." No notice given and none required.

R4 (effective 01/01/2010): Source of Revision: Reconsideration Request – The indications for Transcranial Doppler (TCD) Studies (93886-93893) were updated to include: "As an alternative to an echocardiogram to detect residual right to left shunting after repair/closure of an intracardiac or intrapulmonary shunt." The ICD-9 coding list for Cerebrovascular Evaluation (93886, 93888, 93890, 93892, 93893) was updated to add V58.73 (AFTERCARE FOLLOWING SURGERY OF THE CIRCULATORY SYSTEM NOT ELSEWHERE CLASSIFIED) to the list of covered indications. The Sources of Information were updated to add literature to support the reconsideration request.

Based on CR 6338, Change Type of Bill (TOB) for Federally Qualified Health Centers (FQHCs) from 73x to 77x, the following paragraph has been added to the "Other Comments" section of the LCD: "For dates of service prior to April 1, 2010, FQHC services should be reported with bill type 73X. For dates of service on or after April 1, 2010, bill type 77X should be used to report FQHC services." Minor changes were made to reflect current template language. No comment period required and none given. The SIA associated with this policy was similarly updated.
R3 (effective date 11/01/2009):

Revision History Date	Revision History Number	Revision History Explanation	Reason(s) for Change

Extremity Venous Evaluation (93965, 93970 and 93971):

ICD-9-CM codes 453.40, 453.41, 453.42 were inadvertently removed from the policy with the 10/01/2009 ICD-9 code update and have been replaced. ICD-9-CM code 572.2 was inadvertently added to the policy with the ICD-9-code update and has been removed.

Extremity Arterial Evaluation (93922, 93923, 93924, 93925, 93926, 93930 and 93931): Correction of typo - ICD-9-CM code V59.73 was removed and replaced with the correct code V58.73 (Aftercare following surgery of the circulatory system).

Although the effective date of this revision is 11/01/2009, all coding changes became effective 10/01/2009.

R2 (effective date 10/01/2009): Source of Revision – Annual ICD-9-CM code updates and other policy revisions.

Extracranial Arterial Studies (93875 - 93882):

"Indications" were updated to include angioplasty/stenting as follows: "After carotid endarterectomy or angioplasty/stenting (outside the global period), or follow-up of previously documented stenoses;"

"Utilization Guidelines" were updated to include angioplasty/stenting as follows: "After carotid endarterectomy or angioplasty/stenting, repeat ipsilateral/unilateral examinations are allowable at six weeks, six months, and one year. During the first year, follow-up studies should be on the ipsilateral side unless signs and symptoms or previously identified disease in the contralateral carotid artery provide indications for a bilateral procedure."

Cerebrovascular Evaluation (93875, 93880, 93882): ICD-9 code 784.5 was deleted and replaced with 784.51 and 784.59.

Cerebrovascular Evaluation (93886, 93888, 93890, 93892, 93893): ICD-9 code 348.8 was deleted and replaced with 348.89.

Extremity Arterial Evaluation (93922, 93923, 93924, 93925, 93926, 93930 and 93931): ICD-9 code V58.73 was added to this section.

Extremity Venous Evaluation (93965, 93970 and 93971): Descriptors were revised for 453.40, 453.41, 453.42 and 572.2. ICD-9 codes 416.2, 453.51, 453.52, 453.6, 453.71, 453.72, 453.74, 453.75, 453.76, 453.81, 453.82, 453.84, 453.85, 453.86, 670.30, 670.32 and 670.34 were added to this section.

Vein Mapping for Dialysis Access (HCPCS code G0365): Descriptors were revised for 453.2. Revised descriptors for 453.40, 453.41 and 453.42 were not accepted and codes were removed from this coding list.

Visceral Vascular Studies (93975, 93976, 93938, 93979): Descriptors were revised for 453.2, 572.2, 584.5, 584.6, 584.7, 584.8 and 587.9. ICD-9 codes 415.11, 415.12, 415.19, 416.2, 670.30, 670.32 and 670.34 were added to this section.

**Although the following policy updates were published 10/01/2009, they became effective for claims submitted on or after 09/01/2009:

Revision History Date	Revision History Number	Revision History Explanation	Reason(s) for Change

The indications for Vein Mapping were updated to remove the following bullets:

•Preoperative mapping prior to scheduled revascularization procedures; and/or

•In preparation for creating a dialysis fistula when the patient's clinical evaluation shows that a vein may not be suitable for a fistula.
The following statements were added to Vein Mapping: "Vein mapping may be performed prior to creating a dialysis fistula. Please see "VI. Vessel Mapping of Vessels for Hemodialysis Access (93990/G0365)."

The ICD-9-CM coding section for Visceral Vascular Studies (93975, 93976, 93978, 93979) was updated with the following instructions:

Use ICD-9 codes 401.0, 403.00, 403.01, and 405.01 to report accelerated hypertension.
Use ICD-9 code 456.8 for gastric varices.
Use ICD-9 code 785.9 to report an abdominal bruit.

ICD-9-CM codes added to the policy for Visceral Vascular Studies include: 155.0, 155.1, 401.9, 403.00, 403.01, 403.10, 403.11, 403.90, 403.91, 444.89, 456.0, 456.1, 456.8, 570, 571.2, 571.5, 571.6. 572.1, 572.2, 572.4, 782.4, 785.9, 789.1, 789.2, and 790.4.

Other minor typographical and formatting changes were made to update for most recent NGS template changes. The Supplemental Instructions article associated with this LCD was also updated.

06/05/2009 - In accordance with Section 911 of the Medicare Modernization Act of 2003, fiscal intermediary number 00270 was removed from this LCD as the claims processing for New Hampshire and Vermont was transitioned to NHIC, the Part A/Part B MAC contractor in these states.

05/15/2009 - In accordance with Section 911 of the Medicare Modernization Act of 2003, fiscal intermediary numbers 00180 and 00181 were removed from this LCD as the claims processing for Maine and Massachusetts was transitioned to NHIC, the Part A/Part B MAC contractor in these states.

R1 (effective Date 05/01/2009): Source of Revision External – Reconsideration request.

The following reference was added to CMS National Coverage Policy: 42CFR, Section 410.33 provides guidelines for independent diagnostic testing facilities (IDTFs) including requirements for technician personnel and supervising physicians.

The General Indications were updated in the Credentialing and Accreditation Standards section as follows:

Examples of appropriate personnel certification include, but are not limited to the Registered Physician in Vascular Interpretation (RPVI), Registered Vascular Technologist (RVT), the Registered Cardiovascular Technologist (RCVT), Registered Vascular Specialist (RVS), and the American Registry of Radiologic Technologists (ARRT) credentials in vascular technology. Appropriate laboratory accreditation includes the American College of Radiology (ACR) Vascular Ultrasound Program, and the Intersocietal Commission for the Accreditation of Vascular Laboratories (ICAVL).

Revision History Date	Revision History Number	Revision History Explanation	Reason(s) for Change

Please Note: 42 CFR Section 410.33, Independent Diagnostic Testing Facilities, includes credentialing requirements that supersede those above:
The supervising physician must evidence proficiency in the performance and interpretation of each type of diagnostic procedure performed by the IDTF. The proficiency may be documented by certification in specific medical specialties or subspecialties or by criteria established by the carrier for the service area in which the IDTF is located. See 42 CFR Section 410-33 (2) (b).

Nonphysician personnel. Any nonphysician personnel used by the IDTF to perform tests must demonstrate the basic qualifications to perform the tests in question and have training and proficiency as evidenced by licensure or certification by the appropriate State health or education department. In the absence of a State licensing board, the technician must be certified by an appropriate national credentialing body. The IDTF must maintain documentation available for review that these requirements are met. See 42 CFR Section 410-33 (2) (c).

The ICD-9-CM coding section was updated with the addition of CPT codes 93930 and 93931 to the title as follows:

Pre-surgical Conduit Mapping for Coronary Artery Bypass Graft Procedures (93930, 93931, 93965, 93970, and 93971)

The ICD-9-CM coding section was updated with the deletion of 93930 and 93931 from the title of the Pre-Surgical Vein-Mapping for Peripheral Arterial Bypass section. These codes were previously included in error.

The Utilization Guidelines were updated with the following statement:

Pre-surgical conduit mapping of the radial artery(ies) should only be accompanied by vein-mapping studies when the arterial studies demonstrate a non-acceptable conduit or an insufficient conduit is available for multiple bypass procedures.

The Sources of Information section was updated to include references reviewed due to reconsideration request.

Other changes include minor corrections of typographical errors and updates for current NGS template language.

The changes listed in this revision do NOT apply to the states of Maine (contract 00180), Massachusetts (contract 00181), or Vermont and New Hampshire (contract 00270); however, all other instructions, coverage provisions, and requirements in the LCD remain in effect for these states.

(corr#1) (Effective 11/15/2008) - Minor typographical errors corrected. No change in policy.

3/7/2010 - The description for Bill Type Code 73 was changed
3/7/2010 - The description for Bill Type Code 77 was changed

8/1/2010 - The description for Bill Type Code 11 was changed
8/1/2010 - The description for Bill Type Code 12 was changed
8/1/2010 - The description for Bill Type Code 13 was changed
8/1/2010 - The description for Bill Type Code 71 was changed
8/1/2010 - The description for Bill Type Code 72 was changed
8/1/2010 - The description for Bill Type Code 73 was changed
8/1/2010 - The description for Bill Type Code 85 was changed

Revision History Date	Revision History Number	Revision History Explanation	Reason(s) for Change

8/1/2010 - The description for Revenue code 0920 was changed
8/1/2010 - The description for Revenue code 0921 was changed
8/1/2010 - The description for Revenue code 0929 was changed
8/1/2010 - The description for Revenue code 0960 was changed
8/1/2010 - The description for Revenue code 0981 was changed
8/1/2010 - The description for Revenue code 0982 was changed
8/1/2010 - The description for Revenue code 0983 was changed

09/06/2010 - This policy was updated by the ICD-9 2010-2011 Annual Update.

11/21/2010 - For the following CPT/HCPCS codes either the short description and/or the long description was changed. Depending on which description is used in this LCD, there may not be any change in how the code displays in the document:
93890 descriptor was changed in Group 1
93892 descriptor was changed in Group 1
93893 descriptor was changed in Group 1
93922 descriptor was changed in Group 2
93923 descriptor was changed in Group 2
93924 descriptor was changed in Group 2

08/27/2011 - This policy was updated by the ICD-9 2011-2012 Annual Update.

11/21/2011 - For the following CPT/HCPCS codes either the short description and/or the long description was changed. Depending on which description is used in this LCD, there may not be any change in how the code displays in the document:
93922 descriptor was changed in Group 2
93923 descriptor was changed in Group 2

11/21/2011 - The following CPT/HCPCS codes were deleted:
93875 was deleted from Group 1

11/25/2012 - For the following CPT/HCPCS codes either the short description and/or the long description was changed. Depending on which description is used in this LCD, there may not be any change in how the code displays in the document:
93880 descriptor was changed in Group 1
93882 descriptor was changed in Group 1
93886 descriptor was changed in Group 1
93888 descriptor was changed in Group 1

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Associated Documents

Attachments Non-Invasive Vascular Studies opens in new window (a comment and response document) (PDF - 129 KB)

Related Local Coverage Documents Article(s) A47394 - Non-Invasive Vascular Studies – Supplemental Instructions Article opens in new window

Related National Coverage Documents N/A

Public Version(s) Updated on 10/17/2014 with effective dates 11/01/2014 - N/A Updated on 08/29/2014 with effective dates 09/01/2014 - 10/31/2014 Updated on 08/21/2014 with effective dates 09/01/2014 - N/A Updated

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