FIRST COAST SERVICE OPTIONS
MAC - PART A/B
LOCAL COVERAGE DETERMINATION

LCD Database ID Number
L33693

Contractor Name
First Coast Service Options, Inc.

Contractor Number
09101 - Florida
09201 – PR/USVI
09102 – Florida
09202 – Puerto Rico
09302 – Virgin Islands

Contractor Type
MAC – Part A and B

LCD Title
Non-Invasive Evaluation of Extremity Veins

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CMS National Coverage Policy

Language quoted from CMS National Coverage Determinations (NCDs) and coverage provisions in interpretive manuals are italicized throughout the Local Coverage Determination (LCD). NCDs and coverage provisions in interpretive manuals are not subject to the 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 § 1869 (f)(1)(A)(i) of the Social Security Act.

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

CMS Manual System, Pub. 100-02, Medicare Benefit Policy Manual, Chapter 15, Section 80
CMS Manual System Pub. 100-03, Medicare National Coverage Determinations, Chapter 1, Section(s) 20.14, 20.29, 220.5
CMS Manual System, Pub. 100-08, Medicare Program Integrity Manual, Chapter 13, Section 13.5.1
42 CFR 410.32
Indications and Limitations of Coverage and/or Medical Necessity

Non-invasive vascular diagnostic studies utilize ultrasonic Doppler to assess irregularities in blood flow in the venous system. Vascular studies include patient care required to perform the studies, supervision of the studies and interpretation of study results with copies for patient records of hard copy output with analysis of all data, including bidirectional vascular flow or imaging when provided. The display may be a two-dimensional image with spectral analysis and color flow or a plethysmographic recording that allows for quantitative analysis.

The use of a simple hand-held or other Doppler device that does not produce hard copy output, or that produces a record that does not permit analysis of bidirectional vascular flow, is considered to be part of the physical examination of the vascular system and is not separately reported (CPT 2010). The appropriate assignment of a specific ultrasound CPT code is not solely determined by the weight, size, or portability of the equipment, but rather by the extent, quality, and documentation of the procedure. If an examination is performed with hand-carried equipment, the quality of the exam, printout, and report must be in keeping with accepted national standards.

Definitions

A duplex scan is an ultrasonic scanning procedure with display of both two-dimensional structure and motion with time and Doppler ultrasonic signal documentation with spectral analysis and/or color flow velocity mapping or imaging.

Plethysmography implies volume measurement procedures including air impedance or strain gauge methods. *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.*

Indications
Non-invasive evaluation of extremity veins will be considered to be medically necessary under any of the following circumstances:

- The patient has deep venous thrombophlebitis or has clinical findings (otherwise unexplained limb pain, swelling) which suggest the possibility of acute deep venous thrombophlebitis.
- The patient presents with signs and symptoms of pulmonary embolism (PE) indicated by dyspnea, chest pain, and/or hemoptysis.
- The patient has acute pulmonary embolism.
- Evaluation of patient with symptomatic varicose veins such as stasis ulcer of the lower leg, significant pain and significant edema that interferes with activities of daily living that have not resolved following three months of conservative therapy, and symptoms are suspected to be secondary to venous insufficiency, and testing is performed to confirm this diagnosis by documenting venous valvular incompetence prior to an invasive therapeutic intervention, which meets criteria for medical necessity as outlined in the LCD for Treatment of varicose veins of the lower extremity.
- The patient has chronic venous insufficiency, post phlebitic syndrome, or lymphedema.
- The patient has sustained trauma and injury of the venous system is suspected, making evaluation of the venous system of extremities necessary.
- Venous mapping for the selection of a vein suitable for creating a dialysis fistula or prior to revascularization.
- Evaluation of possible venous obstruction or thrombosis in hospitalized patients who have recently undergone procedures, which predispose them to thrombosis and who would not have been therapeutically anti-coagulated otherwise (eg, hip replacements, knee replacements).

Venous mapping is not always indicated as a routine pre-operative study. However, this procedure may be useful prior to surgical revascularization or creation of a dialysis fistula as part of the patient’s clinical evaluation in determination of an adequate venous conduit.

**Limitations**

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 must clearly support the medical necessity of both procedures if performed during the same encounter, and be available upon request.

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.

Performance of both non-invasive extracranial arterial studies (CPT codes 93880 or 93882) and non-invasive evaluation of extremity veins (CPT codes 93970 or 93971) during the same encounter is not appropriate as a general practice or standing protocol, and therefore, would not generally be expected (American College of Radiology, 2010). Consequently, documentation must clearly support the medical necessity if both procedures are performed during the same encounter, and be available upon request.

It is not considered medically reasonable and necessary to study asymptomatic varicose veins.

**Methods Not Acceptable for Reimbursement**

The following methods are not covered per CMS Manual System, Pub 100-03, Medicare National Coverage Determinations, Chapter 1, Section 20.14 as these methods have not yet reached a level of development such as to allow their routine use in the evaluation of suspected peripheral vascular disease.

- Inductance Plethysmography
- Capacitance Plethysmography
- Mechanical Oscillometry
- Photoelectric Plethysmography
Training Requirements

The accuracy of non-invasive vascular diagnostic studies depends on the knowledge, skill and experience of the technologist and the physician performing the interpretation of the study. Consequently, the technologist and the physician must maintain proof of training and experience.

All non-invasive vascular diagnostic studies must be: (1) performed by a qualified physician, or (2) performed under the general supervision of a qualified physician by a technologist who has demonstrated minimum entry level competency by being credentialled in vascular technology, and/or (3) performed in a laboratory accredited in vascular technology.

The CMS Manual System, Pub. 100-08, Program Integrity Manual, Chapter 13, Section 13.5.1 (http://www.cms.hhs.gov/manuals/downloads/pim83c13.pdf) outlines that “reasonable and necessary” services are “ordered and/or furnished by qualified personnel.” Services will be considered medically reasonable and necessary only if performed by appropriately trained providers.

A qualified physician for this service/procedure is defined as follows: A) Physician is properly enrolled in Medicare. B) Training and expertise must have been acquired within the framework of an accredited residency and/or fellowship program in the applicable specialty/subspecialty in the United States or must reflect equivalent education, training, and expertise endorsed by an academic institution in the United States and/or by the applicable specialty/subspecialty society in the United States.

Examples of certification in vascular technology for non-physician personnel include:

- Registered Vascular Technologist (RVT) credential
- Registered Vascular Specialist (RVS) credential
- Registered Phlebology Sonographer (RPhS)
- Registered Technologist in Vascular Sonography (R.T. [VS])

These credentials must be provided by nationally recognized credentialing organizations such as:

- The American Registry of Diagnostic Medical Sonographers (ARDMS) which provides RDMS and RVT credentials
- The Cardiovascular Credentialing International (CCI) which provides RVS and RPhS credentials
- The American Registry of Radiologic Technologists (ARRT)

Appropriate nationally recognized laboratory accreditation bodies include:

- Intersocietal Commission for the Accreditation of Vascular Laboratories (ICAVL)
- American College of Radiology (ACR)

However, if the facility has a documented process for grand-fathering experienced technicians who have performed the services referenced in this LCD (a process addressing years of service and experience with number of supervised cases), this documentation should be available upon request; otherwise the provider must have documentation available upon request which indicates that the technician meets the credentialing requirements as stated above or is in the process of obtaining this credentialing.

_General Supervision means the procedure is furnished under the physician’s overall direction and control, but the physician’s presence is not required during the performance of the procedure. Under general supervision, the training of the nonphysician personnel who actually performs the diagnostic procedure and the maintenance of the necessary equipment and supplies are the continuing responsibility of the physician._

Type of Bill Code

Hospital – 12x, 13x, 14x
Skilled Nursing Facility – 21x, 22x, 23x
End Stage Renal Disease – 72x
Critical Access Hospital – 85x
## Revenue Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>920</td>
<td>Other Diagnostic Services, General Classifications</td>
</tr>
<tr>
<td>921</td>
<td>Other Diagnostic Services, Peripheral Vascular Lab</td>
</tr>
<tr>
<td>929</td>
<td>Other Diagnostic Service</td>
</tr>
</tbody>
</table>

## CPT/HCPCS Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>93970</td>
<td>Duplex scan of extremity veins including responses to compression and other maneuvers; complete bilateral study</td>
</tr>
<tr>
<td>93971</td>
<td>unilateral or limited study</td>
</tr>
</tbody>
</table>

## ICD-10-Codes that Support Medical Necessity

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I26.01 - I26.99</td>
<td>Pulmonary embolism</td>
</tr>
<tr>
<td>I48.0</td>
<td>Paroxysmal atrial fibrillation</td>
</tr>
<tr>
<td>I48.2</td>
<td>Chronic atrial fibrillation</td>
</tr>
<tr>
<td>I48.91</td>
<td>Unspecified atrial fibrillation</td>
</tr>
<tr>
<td>I80.00 - I80.299</td>
<td>Phlebitis and thrombophlebitis</td>
</tr>
<tr>
<td>I80.3</td>
<td>Phlebitis and thrombophlebitis of lower extremities, unspecified</td>
</tr>
<tr>
<td>I80.8</td>
<td>Phlebitis and thrombophlebitis of other sites</td>
</tr>
<tr>
<td>I82.401 - I82.819</td>
<td>Acute embolism and thrombosis of unspecified deep veins of right lower extremity - Embolism and thrombosis of superficial veins of unspecified lower extremity</td>
</tr>
<tr>
<td>I83.001 - I83.899</td>
<td>Varicose veins of unspecified lower extremity with ulcer of thigh - Varicose veins of unspecified lower extremity with other complications</td>
</tr>
<tr>
<td>I87.001 - I87.099</td>
<td>Postthrombotic syndrome</td>
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<tr>
<td>I87.2</td>
<td>Venous insufficiency (chronic) (peripheral)</td>
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<tr>
<td>I87.9</td>
<td>Disorder of vein, unspecified</td>
</tr>
<tr>
<td>I89.0</td>
<td>Lymphedema, not elsewhere classified</td>
</tr>
<tr>
<td>J96.00 - J96.02</td>
<td>Acute respiratory failure, whether with hypoxia or hypercapnia</td>
</tr>
<tr>
<td>J96.90 - J96.92</td>
<td>Respiratory failure, unspecified whether with hypoxia or hypercapnia</td>
</tr>
<tr>
<td>M79.601 - M79.676</td>
<td>Pain in limb, hand, foot, fingers and toes</td>
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<tr>
<td>M79.89</td>
<td>Other specified soft tissue disorders</td>
</tr>
<tr>
<td>Q82.0</td>
<td>Hereditary lymphedema</td>
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<tr>
<td>R00.0</td>
<td>Tachycardia, unspecified</td>
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<tr>
<td>R04.2</td>
<td>Hemoptysis</td>
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<tr>
<td>R04.89</td>
<td>Hemorrhage from other sites in respiratory passages</td>
</tr>
<tr>
<td>R04.9</td>
<td>Hemorrhage from respiratory passages, unspecified</td>
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<tr>
<td>R05</td>
<td>Cough</td>
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<tr>
<td>R06.00 - R06.09</td>
<td>Dyspnea</td>
</tr>
<tr>
<td>R06.1</td>
<td>Stridor</td>
</tr>
<tr>
<td>R06.2</td>
<td>Wheezing</td>
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<tr>
<td>R06.3</td>
<td>Periodic breathing</td>
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<tr>
<td>R06.4</td>
<td>Hyperventilation</td>
</tr>
<tr>
<td>R06.81 - R06.89</td>
<td>Other abnormalities of breathing</td>
</tr>
<tr>
<td>R06.9</td>
<td>Unspecified abnormalities of breathing</td>
</tr>
<tr>
<td>R07.1</td>
<td>Chest pain on breathing</td>
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<tr>
<td>R07.2</td>
<td>Precordial pain</td>
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<tr>
<td>R07.81 - R07.89</td>
<td>Other chest pain</td>
</tr>
<tr>
<td>R07.9</td>
<td>Chest pain, unspecified</td>
</tr>
<tr>
<td>R09.02</td>
<td>Hypoxemia</td>
</tr>
<tr>
<td>R09.3</td>
<td>Abnormal sputum</td>
</tr>
<tr>
<td>R23.0</td>
<td>Cyanosis</td>
</tr>
<tr>
<td>R60.0 - R60.9</td>
<td>Edema not elsewhere classified</td>
</tr>
<tr>
<td>R94.2</td>
<td>Abnormal results of pulmonary function studies</td>
</tr>
</tbody>
</table>
Non-Invasive Evaluation of Extremity Veins

S25.20XA - S25.29XS  Injury of superior vena cava
S25.301A - S25.399S  Injury of innominate or subclavian vein
S35.10XA - S35.19XS  Injury of inferior vena cava
S35.513A-S35.513S  Injury of unspecified iliac artery
S35.8X9A-S35.8X9S  Unspecified injury of other blood vessels at abdomen, lower back and pelvis level
S45.101A - S45.199S  Injury of brachial artery
S45.201A - S45.299S  Injury of axillary or brachial vein
S45.301A - S45.399S  Injury of superficial vein at shoulder and upper arm level
S45.801A - S45.899S  Injury of other blood vessels at shoulder and upper arm level
S45.901A - S45.999S  Injury of unspecified blood vessel at shoulder and upper arm level
S55.001A - S55.999S  Injury of blood vessels at forearm level
S65.001A - S65.099S  Injury of ulnar artery at wrist and hand level
S65.101A - S65.199S  Injury of radial artery at wrist and hand level
S65.401A - S65.499S  Injury of blood vessel
S65.500A - S65.509S  Unspecified injury of blood vessel of other and unspecified finger
S65.510A - S65.519S  Laceration of blood vessel of other and unspecified finger
S65.590A - S65.599S  Other specified injury of blood vessel of other and unspecified finger
S65.801A - S65.899S  Unspecified injury of other blood vessels at wrist and hand level
S65.901A - S65.999S  Unspecified injury of unspecified blood vessel at wrist and hand level
S75.101A - S75.199S  Injury of femoral vein at hip and thigh level
S75.201A - S75.299S  Injury of greater saphenous vein at hip and thigh level
S75.801A - S75.899S  Injury of other blood vessels at hip and thigh level
S75.901A - S75.999S  Injury of unspecified blood vessel at hip and thigh level
S85.001A – S85.999S  Injury of blood vessels at lower leg level
S95.001A - S95.999S  Injury of dorsal artery of foot
T80.0XXA-T80.0XXS  Air embolism following infusion, transfusion and therapeutic injection, initial encounter
T81.718A-T81.718S  Complication of other artery following a procedure, not elsewhere classified, initial encounter
T81.72XA-T81.72XS  Complication of vein following a procedure, not elsewhere classified, initial encounter
T82.7XXA-T82.7XXS  Infection and inflammatory reaction due to other cardiac and vascular devices, implants and grafts, initial encounter
T82.817A-T82.818S  Embolism due to cardiac prosthetic devices, implants and grafts, initial encounter - Embolism due to vascular prosthetic devices, implants and grafts, sequela
Z01.818  Encounter for other preprocedural examination
Z09  Encounter for follow-up examination after completed treatment for conditions other than malignant neoplasm

Diagnoses that Support Medical Necessity

N/A

ICD-10 Codes that DO NOT Support Medical Necessity

N/A

Diagnoses that DO NOT Support Medical Necessity

N/A

Associated Information

Documentation Requirements

Medical record documentation maintained by the ordering/referring physician/nonphysician practitioner must clearly indicate the medical necessity of non-invasive venous studies covered and be available upon request. Also, the results of non-invasive venous studies must be included in the patient's medical record.
If the provider of non-invasive venous studies is other than the ordering/referring physician/nonphysician practitioner, the provider of the service must maintain a copy of the test results and interpretation, along with copies of the ordering/referring physician/nonphysician practitioner’s order for the studies.

The provider is responsible for ensuring the medical necessity of procedures and maintaining the medical record, which must be available upon request. Non-invasive vascular studies are medically reasonable and necessary only if the outcome will potentially impact the diagnosis or clinical course of the patient. Billing providers are encouraged to obtain additional information from referring providers and/or patients or medical records to determine the medical necessity of studies performed. Referring physicians are required to provide appropriate diagnostic information to the performing provider.

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 must clearly support the medical necessity of both procedures if performed during the same encounter.

Performance of both non-invasive extracranial arterial studies (CPT codes 93880 or 93882) and non-invasive evaluation of extremity veins (CPT codes 93970 or 93971) during the same encounter is not appropriate as a general practice or standing protocol, and therefore, would not generally be expected (American College of Radiology, 2010). Consequently, documentation must clearly support the medical necessity if both procedures are performed during the same encounter, and be available upon request.

Per 42 CFR §410.32, all diagnostic tests must be ordered by the physician/nonphysician practitioner who is treating the patient, that is, the physician/nonphysician practitioner who furnishes a consultation or treats a patient for a specific medical problem and who uses the results in the management of the patient’s specific medical problem. Tests not ordered by the physician/nonphysician practitioner who is treating the patient are not reasonable and necessary.

Utilization Guidelines

It is expected that these services would be performed as indicated by current medical literature and/or standards of practice. When services are performed in excess of established parameters, they may be subject to review for medical necessity.

Generally, it is not expected that these services would be performed more than once a year, excluding inpatient hospital (21) and emergency room (23) places of service.

Sources of Information and Basis for Decision

First Coast Service Options, Inc. reference LCD number(s) – L28957, L29234, L29369


Other Contractor’s Policies


Start Date of Comment Period

N/A

End Date of Comment Period

N/A

Start Date of Notice Period

N/A

Revision History

Revision History Number: R4

Revision Number: 4
Publication: September 2017 Connection
LCR A/B2017-038

Explanation of Revision: Based on CR 10153 (Annual 2018 ICD-10-CM Update) the LCD was revised. Descriptor revised for ICD-10-CM diagnosis codes I82.819, I83.899. The effective date of this revision is based on date of service.

Revision History Number: R3

Revision Number: 3
Publication: December 2016 Connection
LCR A/B2017-001

Explanation of Revision: Based on CR 9752 (Annual 2017 HCPCS Update), the LCD was revised. CPT code 93965 was deleted in the “CPT/HCPCS Codes” section of the LCD and all reference to CPT code 93965 was deleted in the “Documentation Requirements” and “Limitations” sections of the LCD. The effective date of this revision is based on date of service.

Revision History Number: R2

Revision Number: 2
Publication: October 2016 Connection
LCR A/B2016-097

Explanation of Revision: Based on CR 9677 (Annual 2017 ICD-10-CM Update) the LCD was revised for descriptor change to ICD-10-CM diagnosis code range T82.817A-T82.818S. The effective date of this revision is based on date of service.

Revision History Number: R1

Revision Number: 1
Publication: January 2016 Connection
LCR A/B2016-025
Explanation of Revision: This LCD is being revised to replace CPT code 93881 with 93882 in the “Limitations” and “Documentation Requirements” sections of the LCD. The effective date of this revision is based on process date.

Revision Number: Original

This LCD replaces all previous LCD versions (refer to “Sources of Information and Basis for Decision” section of the LCD) and publications on this subject to comply with ICD-10-CM based on Change Request 8112. The effective date of this LCD is based on date of service.

Related Documents

N/A

LCD Attachments

N/A

Document formatted: 09/05/2017 (RC/NM/dc)