

Non-Invasive Peripheral Vascular Venous Studies (93970, 93971) L35751

Indications:

Diagnostic tests must be ordered by the physician who is treating the beneficiary and who will use the results in the management of the beneficiary's specific medical problem. Services are deemed medically necessary when all of the following conditions are met:

1. Signs/symptoms of ischemia or altered blood flow are present;
2. The information is necessary for appropriate medical and/or surgical management;
3. The test is not redundant of other diagnostic procedures that must be performed.

Deep Vein Thrombosis (DVT)

The signs and 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 conditions:

1. Clinical signs and/or symptoms of DVT including edema, tenderness, inflammation, and/or erythema.
2. Clinical signs and/or symptoms of pulmonary embolism (PE) including hemoptysis, chest pain, and/or dyspnea.
3. Unexplained lower extremity edema status, post major surgical procedures, trauma, other or progressive illness/condition; surveillance following high-risk surgical procedures, such as orthopedic or pelvic. Individual consideration will be given to surveillance of patients on prolonged bed rest (e.g., due to neurologic, condition / procedures, congestive heart failure, and paradoxical emboli). In general, surveillance is not necessary when effective antithrombotic measures (e.g., anticoagulants, alternating pressure devices) are being used. However, it may be necessary in some patients prior to applying alternating pressure devices or compression dressings under appropriate clinical circumstances.
4. Unexplained lower extremity pain, excluding pain of skeletal origin.
5. Bilateral limb edema is rarely an indicator for medical necessity in the presence of signs and symptoms of heart failure, exogenous obesity, and/or arthritis.

Chronic Venous Insufficiency

Chronic venous insufficiency may be divided into three categories: primary varicose veins, post-thrombotic (post-phlebotic) syndrome, and recurrent deep vein thrombosis. Peripheral vascular studies may be indicated in patients with:

1. Ulceration suspected to be secondary to venous insufficiency. These tests may be indicated to confirm this diagnosis by documenting venous valvular incompetence prior to invasive therapeutic treatment.
2. 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. It is not medically necessary to study asymptomatic primary varicose veins (See WPS policy L34536, Treatment of Varicose Veins of the Lower Extremities).

3. Superficial thrombophlebitis involving the proximal thigh, to investigate whether there was thrombus at the saphenofemoral junction that would demand either anticoagulation or surgical ligation.
4. Evaluation is medically necessary in patients with symptoms of recurrent DVT or in patients prior to compression therapy to exclude superimposed acute DVT which may be at risk for embolization with such therapy.

Venous Mapping

Vein mapping is considered medically reasonable and necessary when the patient's clinical evaluation indicates one of the following:

1. Previous partial harvest of the vein.
2. Previous thrombophlebitis or DVT in the leg.
3. Severe varicose veins.
4. Previous history of vein stripping, ligation, or sclerotherapy.
5. Obesity to the degree it interferes with clinical determination.
6. Other indications must be clearly supported by medical documentation.
7. Vein mapping may be performed prior to creating a dialysis fistula. See section III in this policy on vessel mapping of vessels for hemodialysis
8. Mapping the saphenous veins prior to scheduled revascularization procedures is covered 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 bypass

Limitations:

Vein mapping as a routine preoperative study is not covered.

Duplex scan of extremity veins including responses to compression and other maneuvers; unilateral or limited study is indicated for the preoperative examination of potential harvest vein grafts to be utilized during bypass surgery. This is a covered service only when the results of the study are necessary to locate suitable graft vessels. The need for the bypass surgery must be determined prior to the performance of the test.

Each patient's condition and response to treatment must medically warrant the number of services reported for payment. Medicare requires the medical necessity for each study reported to be clearly documented in the patient's medical record.

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.

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

Only one preoperative scan is considered reasonable and necessary for hemodialysis access

site surgery. If a more current preoperative scan is indicated for a patient with multiple comorbidities having difficulty being stabilized for surgery or a change in condition, the medical record would need to support the medical necessity of the second scan.

Only one limited study is considered reasonable and necessary post operatively within 72 hours of a saphenous vein ablation, whether surgery is performed on one side or bilaterally.

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.

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. The documentation must support the medical necessity.

Documentation must be provided supporting the need for more than one imaging study Doppler flow or vessel mapping and arteriogram.

Performance of both non-invasive extracranial arterial studies and non-invasive evaluation of extremity veins during the same encounter is not appropriate as a general practice or standing protocol, and therefore, generally would not be expected to be done together. Consequently, documentation must clearly support the medical necessity if both procedures are performed during the same encounter.

Preventive and/or screening services unless covered in Statute are not covered by Medicare.

| Most Common Diagnoses for Peripheral Venous Vascular Studies (which meet medical necessity) * | |
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| I26.99 | Acute pulmonary embolism |
| I27.82 | Chronic pulmonary embolism |
| I80.01 | Phlebitis and thrombophlebitis of superficial vessels of right lower extremity |
| I80.02 | Phlebitis and thrombophlebitis of superficial vessels of left lower extremity |
| I82.401 | Acute embolism and thrombosis of deep veins of right lower extremity |
| I82.402 | Acute embolism and thrombosis of deep veins of left lower extremity |
| I82.403 | Acute embolism and thrombosis of deep veins of lower extremity, bilateral |
| I82.411 | Acute embolism and thrombosis of right femoral vein |
| I82.412 | Acute embolism and thrombosis of left femoral vein |
| I82.413 | Acute embolism and thrombosis of femoral vein, bilateral |
| I82.431 | Acute embolism and thrombosis of right popliteal vein |
| I82.432 | Acute embolism and thrombosis of left popliteal vein |
| I82.433 | Acute embolism and thrombosis of popliteal vein, bilateral |
| I82.441 | Acute embolism and thrombosis of right tibial vein |
| I82.442 | Acute embolism and thrombosis of left tibial vein |
| I82.443 | Acute embolism and thrombosis of tibial vein, bilateral |
| I82.451 | Acute embolism and thrombosis of right peroneal vein |
| I82.452 | Acute embolism and thrombosis of left peroneal vein |

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| I82.453 | Acute embolism and thrombosis of peroneal vein, bilateral |
| I82.461 | Acute embolism and thrombosis of right calf muscular vein |
| I82.462 | Acute embolism and thrombosis of left calf muscular vein |
| I82.463 | Acute embolism and thrombosis of calf muscular vein, bilateral |
| I82.4Y1 | Acute embolism and thrombosis of deep veins of right proximal lower extremity |
| I82.4Y2 | Acute embolism and thrombosis of deep veins of left proximal lower extremity |
| I82.4Z1 | Acute embolism and thrombosis of deep veins of right distal lower extremity |
| I82.4Z2 | Acute embolism and thrombosis of deep veins of left distal lower extremity |
| I82.4Z3 | Acute embolism and thrombosis of deep veins of distal lower extremity, bilateral |
| I82.501 | Chronic embolism and thrombosis of deep veins of right lower extremity |
| I82.502 | Chronic embolism and thrombosis of deep veins of left lower extremity |
| I82.503 | Chronic embolism and thrombosis of deep veins of lower extremity, bilateral |
| I82.511 | Chronic embolism and thrombosis of right femoral vein |
| I82.512 | Chronic embolism and thrombosis of left femoral vein |
| I82.513 | Chronic embolism and thrombosis of bilateral femoral vein |
| I82.531 | Chronic embolism and thrombosis of right popliteal vein |
| I82.532 | Chronic embolism and thrombosis of left popliteal vein |
| I82.533 | Chronic embolism and thrombosis of popliteal vein, bilateral |
| I82.541 | Chronic embolism and thrombosis of right tibial vein |
| I82.542 | Chronic embolism and thrombosis of left tibial vein |
| I82.551 | Chronic embolism and thrombosis of right peroneal vein |
| I82.552 | Chronic embolism and thrombosis of left peroneal vein |
| I82.553 | Chronic embolism and thrombosis of peroneal vein, bilateral |
| I82.561 | Chronic embolism and thrombosis of right calf muscular vein |
| I82.562 | Chronic embolism and thrombosis of left calf muscular vein |
| I82.611 | Acute embolism and thrombosis of superficial veins of right upper extremity |
| I82.612 | Acute embolism and thrombosis of superficial veins of left upper extremity |
| I82.613 | Acute embolism and thrombosis of superficial veins of upper extremity, bilateral |
| I82.621 | Acute embolism and thrombosis of deep veins of right upper extremity |
| I82.622 | Acute embolism and thrombosis of deep veins of left upper extremity |
| I82.623 | Acute embolism and thrombosis of deep veins of upper extremity, bilateral |
| I82.711 | Chronic embolism and thrombosis of superficial veins of right upper extremity |
| I82.712 | Chronic embolism and thrombosis of superficial veins of left upper extremity |
| I82.721 | Chronic embolism and thrombosis of deep veins of right upper extremity |
| I82.722 | Chronic embolism and thrombosis of deep veins of left upper extremity |
| I82.811 | Embolism and thrombosis of superficial veins of right lower extremity |
| I82.812 | Embolism and thrombosis of superficial veins of left lower extremity |
| I82.813 | Embolism and thrombosis of superficial veins of lower extremity, bilateral |
| I83.11 | Varicose veins of right lower extremity with inflammation |
| I83.12 | Varicose veins of left lower extremity with inflammation |
| I83.811 | Varicose veins of right lower extremity with pain |
| I83.812 | Varicose veins of left lower extremity with pain |
| I83.813 | Varicose veins of bilateral lower extremities with pain |
| I83.91 | Asymptomatic varicose veins of right extremity |
| I83.92 | Asymptomatic varicose veins of left extremity |
| I83.93 | Asymptomatic varicose veins of bilateral lower extremities |

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| I87.1 | Compression of vein/ vena cava syndrome |
| I87.2 | Venous insufficiency (chronic) (peripheral) / stasis dermatitis |
| I87.301 | Chronic venous hypertension without complications, bilateral lower extremities |
| I87.313 | Chronic venous hypertension with ulcer, bilateral lower extremity |
| M79.601 | Pain in right arm |
| M79.602 | Pain in left arm |
| M79.604 | Pain in right leg |
| M79.605 | Pain in left leg |
| M79.621 | Pain in right upper arm |
| M79.622 | Pain in left upper arm |
| M79.651 | Pain in right thigh |
| M79.652 | Pain in left thigh |
| M79.661 | Pain in right lower leg |
| M79.662 | Pain in left lower leg |
| M79.671 | Pain in right foot |
| M79.672 | Pain in left foot |
| R06.00 | Dyspnea |
| R06.02 | Shortness of breath |
| R07.89 | Anterior chest wall pain |
| R09.02 | Hypoxemia |
| R22.31 | Localized swelling, mass and lump, right upper limb |
| R22.32 | Localized swelling, mass and lump, left upper limb |
| R22.33 | Localized swelling, mass and lump, upper limb, bilateral |
| R22.41 | Localized swelling, mass and lump, right lower limb |
| R22.42 | Localized swelling, mass and lump, left lower limb |
| R22.43 | Localized swelling, mass and lump, lower limb, bilateral |
| R60.0 | Localized edema |
| Z01.810 | Encounter for cardiovascular preprocedural examination |
| Z01.818 | Encounter for other preprocedural examination |
| Z86.711 | Personal history of pulmonary embolism |
| Z86.718 | Personal history of other venous thrombosis and embolism |

*Note: See the complete list of Medicare covered diagnoses and payment rules:

<https://www.cms.gov/medicare-coverage-database/view/article.aspx?articleId=57594>

To see the complete coverage indications and limitations:

<https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?lcdId=35751&ver=41>

The above CMS and WPS-GHA guidelines are current as of: 1/01/2024.