

**FORMAL REQUEST FOR RECONSIDERATION OF NOVITAS SOLUTIONS, LLC  
LOCAL COVERAGE DETERMINATION**

**Non-Invasive Peripheral Venous Studies (L35451)**

**Submitted by**

**Mohamed Nabulsi, Esq.  
Mandelbaum Barrett PC  
3 Becker Farm Road  
Roseland, New Jersey 07068**

**April 4, 2022**

## TABLE OF CONTENTS

1. Objective
2. Executive Summary
3. Background
  - a. Description of Procedures
  - b. Medicare Benefits
  - c. Current LCD Language
  - d. Additional Relevant Guidance
4. Requested Revision
5. Evidence Supporting the Requested Change
6. Case Study - Sample Patient A.N.
7. Conclusion
8. Bibliography
9. Exhibits
  - a. Local Coverage Determination 35451 – Non-Invasive Peripheral Venous Studies
  - b. Local Coverage Article A52993

## **Objective**

To secure coverage for the performance of non-invasive extracranial arterial studies and non-invasive evaluation of extremity veins during the same encounter. We seek a clinical review by medical professionals with subspecialties and experience in vascular surgery and internal medicine to reconsider Local Coverage Determination L35451 (the “LCD”), issued by Novitas Solutions, LLC (“Novitas”), in order to establish that the performance of non-invasive extracranial arterial studies and non-invasive evaluation of extremity veins during the same encounter are medically necessary, such that it aligns with current, commonly accepted standards of care involving the use of such tests.

## **Executive Summary**

This Reconsideration Request involves the use of “duplex” ultrasounds. A duplex ultrasound consists of two different ultrasounds - the traditional ultrasound and a doppler ultrasound. The traditional ultrasound uses sound waves that bounce off blood vessels to create an image. A doppler ultrasound records the sound waves reflecting off moving objects, such as blood, to measure the speed and other aspects of their flow.<sup>1</sup>

There are several types of duplex ultrasounds, which include, but are not limited to arterial and venous duplex ultrasounds of the abdomen, carotid duplex ultrasounds of the neck, renal duplex and duplex ultrasounds of the extremities.<sup>2</sup> For the purposes of this Reconsideration Request, all of the aforementioned tests are collectively referred to as “dopplers” and/or “ultrasounds”.

The procedures governed by the LCD include:

- A- CPT code 93970 - Duplex scan of extremity veins including responses to compression and other maneuvers; complete bilateral study,
- B- CPT code 93971 - Duplex scan of extremity veins including responses to compression and other maneuvers; unilateral or limited study,
- C- CPT code 93925 - Duplex scan of lower extremity arteries or arterial bypass grafts; complete bilateral study.

The existing LCD’s guidance is based on dated studies and materials that no longer constitute best practices in the medical profession. It is our belief, and that of many providers, that the LCD contains critical errors that ultimately lead to adverse outcomes for patients. Specifically, the LCD provides that the symptomology that would indicate the use of a duplex venous study and an extracranial arterial doppler study are divergent. However, this provision is patently untrue, and, as described further below, patients can present with the same symptomology for multiple conditions, each of which has divergent treatments to ensure optimal patient outcome.

## **Description of Procedures**

<sup>1</sup> Duplex ultrasound (Jan-12-2022), <https://medlineplus.gov/ency/article/003433.htm>.

<sup>2</sup> Id.

In an ultrasound exam, a transducer emits sound waves and records the echoing waves bouncing off bodily structures to create a diagnostic image. When the transducer is pressed against the skin, it sends small pulses of inaudible, high-frequency sound waves into the body. As the sound waves bounce off internal organs, fluids and tissues, the sensitive receiver in the transducer records tiny changes in the sound's pitch and direction. These sound waves are analyzed and interpreted by a computer, which creates a real-time picture of the applicable area for review and analysis by the provider. One or more frames of the moving pictures are typically captured as still images by the technician operating the ultrasound machine, and later interpreted by a radiologist. Short video loops of the images may also be saved. Doppler ultrasound, a special ultrasound technique, measures the direction and speed of blood cells as they move through vessels. The movement of blood cells causes a change in pitch of the reflected sound waves (called the Doppler effect). A computer collects and processes the sounds, and creating graphs or color pictures that represent the flow of blood through the blood vessels.<sup>3</sup>

As part of the procedure, a clear, water-based gel is applied to the area of the body being studied. This helps the transducer make secure contact with the body and eliminate air pockets between the transducer and the skin that can block the sound waves from passing into the body. The technologist or radiologist places the transducer on the skin in various locations, sweeping over the area of interest. The sound beam may also be angled from a different location to better see an area of concern. Doppler sonography is performed using the same transducer. A radiologist analyzes the images and sends a signed report, conveying the results of the test, to the doctor who requested the exam.<sup>4</sup> CPT codes 93970 and 93971 involve such a scan of the extremity veins, while CPT code 93925 involves a scan of the lower extremity arteries.

### **Medicare Benefits**

The applicable CPT codes are reimbursed under Medicare Parts A and B, and the LCD that is the basis for this Reconsideration Request includes peripheral artery disease (“PAD”), chronic venous insufficiency (“CVI”), deep vein thrombosis (“DVT”) and pre-operative examinations as the covered indications.

### **Current LCD Language**

The LCD’s current language creates a high bar to establishing medical necessity for performing both arterial and venous ultrasonography procedures on the same date of service. The LCD requires a demonstration of medical necessity for both services and includes language indicating that it is rare for both indications to be medically necessary during the same encounter. The LCD’s Limitations section currently provides:

:

#### **Limitations**

---

<sup>3</sup> Ultrasound - Venous (Extremities) (Feb-5-2019), <https://www.radiologyinfo.org/en/info/venousus>.

<sup>4</sup> Id.

1. Objective testing of peripheral venous function is considered not reasonable and necessary and therefore non-covered for any one of the following:

~ Asymptomatic varicose veins

~ Routine screening tests

Note: Please see the billing and coding article for Non-Invasive Peripheral Venous Studies, A52993, for appropriate ICD-10-CM diagnosis code(s) used to indicate screening tests performed in the absence of a specific sign, symptom, or complaint. Screening tests performed in the absence of a specific sign, symptom, or complaint will result in the denial of claims as non-covered screening services.

2. Non-invasive vascular studies are considered not reasonable and necessary if the results are not needed for clinical decision making. If the study results will have no impact on the decision for further diagnostic or therapeutic procedures or will not provide any unique diagnostic information that would impact patient management, then the non-invasive studies are not reasonable and necessary. For example, if it is evident 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 reasonable and necessary.

**3. The following limitations apply to multiple non-invasive studies on the same encounter or same day:**

~ **Performance of both non-invasive extracranial arterial studies and non-invasive evaluation of extremity veins during the same encounter is rarely medically necessary. Documentation must clearly support the medical necessity if both procedures are performed during the same encounter, and be made available upon request.**

~ **Because 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 is rarely medically necessary. Consequently, documentation must clearly support the medical necessity of both procedures if performed during the same encounter, and be made available upon request.**

~ **It is rarely medically necessary to perform lower extremity and upper extremity studies on the same day. Documentation must clearly support the medical necessity of both upper and lower extremities if performed on the same day, and be made available upon request.**

4. "The use of a simple hand-held or other Doppler device that does not produce hard copy data 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." (AMA 2018 CPT Book, Page 654) Doppler procedures performed with zero-crossers (i.e., analog [strip chart recorder] analysis) are also included in any other E/M service. Therefore, it is not reasonable and necessary to report these procedures as separate services.

5. Please refer to NCD 20.14, for a list of plethysmography methods that are not covered.

(emphasis added)(a copy of the LCD is enclosed herewith as Exhibit A).

The LCD also imposes the following Utilization Guidelines:

- 1- One pre-operative limited scan is considered reasonable and necessary for bypass surgery.
- 2- One pre-operative vessel mapping for hemodialysis access scan is considered reasonable and necessary per hemodialysis access site surgery.
- 3- 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.
- 4- One Doppler ultrasound study or duplex scan will be covered for documentation of disease and mapping for chronic venous insufficiency or symptomatic varicose veins.

In addition, the LCD imposes the following documentation requirements:

1. All documentation must be maintained in the patient's medical record and made available to the contractor upon request.
2. Every page of the record must be legible and include appropriate patient identification information (e.g., complete name, dates of service[s]). The documentation must include the legible signature of the physician or non-physician practitioner responsible for and providing the care to the patient.
3. The medical record documentation must support the medical necessity of the services as stated in this policy.
4. The medical necessity for performing both non-invasive extracranial arterial studies and non-invasive evaluation of extremity veins during the same encounter must be clearly documented in the medical record.
5. The medical necessity for performing simultaneous arterial and venous studies during the same encounter must be clearly documented in the medical record.
6. The medical necessity of performing lower extremity and upper extremity studies on the same day must be clearly documented in the medical record.

#### **Additional Relevant Guidance**

CMS Coverage Article A52993 (the "Article") refers to and incorporates the reasonable and necessary requirements set forth in the LCD (a copy of the Article is enclosed herewith as Exhibit B). For the purposes of this Reconsideration Request, the term LCD incorporates the Article.

#### **Requested Revision**

We propose that Novitas strike Limitations Section 3 from the LCD and adjust the numbering of Limitations 4 and 5 as needed.

#### **Evidence Supporting the Requested Change**

##### **Clinical Overview**

While the LCD provides that the signs and symptoms presented for indications that would be sufficient for the applicable tests are divergent, it is our belief that this assertion, which is the rationale for the limitation we are seeking to have removed, is incorrect and contrary to the current best practices in medicine.

Numerous conditions can present with the same symptomology. PAD presents with a variety of symptoms, including claudication and leg pain<sup>5</sup>; chronic vein insufficiency (such as varicose veins) presents with claudication and leg pain and muscle cramps<sup>6</sup>; and deep vein thromboses present with claudication and pain and tenderness across the course of the major veins. In each case, claudication presents with leg pain which, by itself, cannot determine the diagnosis, and understandably, patients may not be able to differentiate the different types of leg pain that present in each condition.

## Clinical Background

There are, at a minimum, three potential conditions which all present with similar symptomology, but which have wildly divergent plans of care and disparate impacts upon patient health. Background, symptoms, and courses of treatment for each of these conditions are presented below.

## Peripheral Arterial Disease

PAD is a clinical disorder in which there is a stenosis or occlusion in the aorta or the arteries of the limbs. Atherosclerosis is the leading cause of PAD in patients more than 40 years old. Other causes include thrombosis, embolism, vasculitis, fibromuscular dysplasia, entrapment, cystic adventitial disease, and trauma. The highest prevalence of atherosclerotic PAD occurs in the sixth and seventh decades of life. As in patients with atherosclerosis of the coronary and cerebral vasculature, there is an increased risk of developing PAD in cigarette smokers and in persons with diabetes mellitus, hypercholesterolemia, hypertension, or renal insufficiency.<sup>7</sup>

As described above, PAD can present with symptoms such as claudication and leg pain. In addition, in asymptomatic patients, the screening for PAD using only an ankle-brachial index can be insufficient.<sup>8</sup> Extracranial dopplers are an accurate method for the determination of the degree of

---

<sup>5</sup> McDermott MM, Kerwin DR, Liu K, et al. Prevalence and significance of unrecognized lower extremity peripheral arterial disease in general medicine practice. *J Gen Intern Med.* 2001;16(6):384–390.

Guirguis-Blake JM, Evans CV, Redmon N, Lin JS. Screening for peripheral artery disease using the ankle-brachial index: updated evidence report and systematic review for the US Preventative Services Task Force. *JAMA.* 2018;320(2):184–196. DOI: 10.1001/jama.2018.4250

<sup>6</sup> Overview of lower extremity chronic venous disease (Sep-22-2020), <https://www.uptodate.com/contents/overview-of-lower-extremity-chronic-disease>.

<sup>7</sup> Harrison's Principles of Internal Medicine, 19e 302: Arterial Diseases of the Extremities, A. Creager Mark; Loscalzo Joseph

<sup>8</sup> Hur KY, Jun JE, Choi YJ, et al. Color Doppler Ultrasonography Is a Useful Tool for Diagnosis of Peripheral Artery Disease in Type 2 Diabetes Mellitus Patients with Ankle-Brachial Index 0.91 to 1.40. *Diabetes Metab J.* 2018;42(1):63-73. doi:10.4093/dmj.2018.42.1.63.

stenosis or the length of the occlusion of the arteries supplying the lower extremity.<sup>9</sup> As such, the performance of the extracranial doppler is required in order to properly diagnose and treat a patient suffering from PAD.

Additionally, an association between cardiovascular disease and PAD has been noted in multiple studies and the importance of PAD as a marker for coexistent coronary artery disease cannot be overstated.<sup>10</sup> Failure to treat PAD can result in significant cardiovascular and limb morbidity and mortality, such as critical limb-threatening ischemia (“CLTI”), stroke, or myocardial infarction. For cardiovascular morbidity and mortality, studies have demonstrated non-fatal myocardial infarction or stroke in 20% of patients and fatal myocardial infarction or stroke in 15% to 30% of patients.<sup>11</sup> As for limb morbidity, studies have shown that stable claudication occurs in 70% to 80% of patients, worsening claudication in 10% to 20%, and CLTI in 1% to 2% of patients.<sup>12</sup>

The course of treatment for PAD can include lifestyle changes, such as smoking cessation, exercise, medical management via cholesterol-lowering medications, high blood pressure medications, blood sugar medications, blood thinners to prevent clotting or other symptom relief medications, such as cilostazol and/or pentoxifylline.<sup>13</sup> Treatment can also include angioplasty and/or surgery, depending on the progression of the status of the artery causing the claudication.<sup>14</sup>

---

<sup>9</sup> Yadav MK, Mohaammed AKM, Puramadathil V, Geetha D, Unni M. Lower extremities arteries. *Cardiovasc. Diagn. Ther.* 2019 Aug;9(Suppl 1):S174-S182 doi: 10.21037/cdt.2019.07.08.. PMID: 31559162; PMCID: PMC6732106

Hwang JY. Doppler ultrasonography of the lower extremity arteries: anatomy and scanning guidelines. *Ultrasonography.* 2017 Apr;36(2):111-119. doi: 10.14366/usg.16054. Epub 2017 Jan 18. PMID: 28219004; PMCID: PMC5381852

Shabani Varaki E, Gargiulo GD, Penkala S, Breen PP. Peripheral vascular disease assessment in the lower limb: a review of current and emerging non-invasive diagnostic methods. *Biomed. Eng. Online.* 2018 May 11;17(1):61. doi: 10.1186/s12938-018-0494-4. PMID: 29751811; PMCID: PMC5948740.

<sup>10</sup> Criqui MH, Langer RD, Fronek A, Feigelson HS, Klauber MR, McCann TJ, et al. Mortality over a period of 10 years in patients with peripheral arterial disease. *N. Engl. J. Med.* 1992;326(6):381.

Leng GC, Fowkes FG, Lee AJ, Dunbar J, Housely R, Ruckley CV. Use of ankle pressure index to predict cardiovascular events and death: a cohort study. *BMJ.* 1996;313(7070):1440.

<sup>11</sup> Ibid.

<sup>12</sup> Gerhard-Herman MD, Gornick HL, Barret C, Barshes NR, et al. 2016 AHA/ACC Guideline on the Management of Patients with Lower Extremity Peripheral Artery Disease: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *Circulation.* 2017;135(12):e726. Epub 2016 Nov 13.

Hirsch AT, Haskal ZJ, Hertzner NR, Bakal CW, Creager MA, et al. ACC/AHA 2005 Practice Guidelines for the management of patients with peripheral arterial disease (lower extremity, renal, and abdominal aortic): a collaborative report from the American Association of Vascular Surgery/Society for Vascular Surgery, Society of Cardiovascular Angiography and Interventions, Society for Vascular Medicine and Biology, Society of Interventional Radiology, and the ACC/AHA Task Force on Practice Guidelines. *Circulation.* 2006;113(11):e4634

<sup>13</sup> Peripheral artery disease (PAD) (Jan-14-2021), <https://www.mayoclinic.org/diseases-conditions/peripheral-artery-disease/diagnosis-treatment/drc-20350563>.

<sup>14</sup> Ibid.



## Chronic Venous Insufficiency

Varicose veins are the most common manifestation of CVI. It is believed that varicose veins are usually due to abnormal distensibility of connective tissue in the vein wall. Early work has suggested that veins from patients with varicosities are more distensible than those from patients with normal veins, indicating a probable systemic basis for the abnormality. Varicosities usually start at points where superficial veins communicate with deep veins, particularly at the saphenofemoral and saphenopopliteal junctions and in the perforating system, because of valvular incompetence. Primary varicose veins result from venous dilatation without previous thrombosis. Secondary varicose veins are caused by valvular damage after deep vein thrombosis (“DVT”) and recanalization that gives rise to incompetent deep and perforating veins. Sometimes, varicose veins may be associated with reflux through vulvar varices, without any relation to the saphenofemoral junction or other deep-to-superficial reflux in the lower limb. Such varices also may be associated with clinical symptoms and signs suggestive of pelvic congestion, including uterine retroversion and dyspareunia.<sup>15</sup>

The symptoms of CVI include venous claudication, pain, leg heaviness, aching, swelling, muscle cramps, swelling around the ankles and lower legs after prolonged period of standing, appearance of new dilated veins (telangiectasia or prominent, tortuous bluish varicose veins just under the skin), bleeding upon trauma to dilated veins, leathery, itchy, dry or tight skin, and stasis ulcers. Because the history and clinical examination will not always indicate the nature and extent of the underlying abnormality (anatomic extent, pathology, and cause), duplex scanning can demonstrate whether the reflux is in the deep, superficial, or perforating veins, or in any combination thereof. In addition, duplex scanning can detect small amounts of reflux in isolated segments of veins often present in “normal” asymptomatic individuals. Also, duplex scanning can determine whether reflux is confined to a vein above or below the knee, or whether it extends throughout the whole limb. In the absence of deep venous obstruction, limbs with reflux confined to the proximal (above knee) veins rarely develop skin changes or ulceration. In contrast, even in the presence of normal deep veins, symptoms and signs of CVI are more often found when the entire length of the greater saphenous vein is involved or when reflux is present in both the long and short saphenous veins.<sup>16</sup>

While mild cases of CVI can be treated through non-interventional methods, such as elevation of the legs, skin care, compression stockings, and other lifestyle changes (avoiding long periods of standing, losing weight, regular exercise), more severe cases may require interventions such as sclerotherapy, endothermal ablation, endovenous laser treatment, ultrasound guided foam sclerotherapy and radiofrequency ablation. In some cases, surgical interventions such as ligation and stripping, transilluminated powered phlebectomy, cyanoacrylate glue occlusion, and/or ambulatory phlebectomy and vein bypass surgery can be required.<sup>17</sup>

## Deep Vein Thrombosis

---

<sup>15</sup> Patel SK, Surowiec SM. Venous Insufficiency. [Updated 2021 Aug 4]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2021 Jan-. Available from <https://www.ncbi.nlm.nih.gov/books/NBK430975/>

<sup>16</sup> A. N. Nicolaidis. Investigation of chronic venous insufficiency: A consensus statement. *Circulation*. 2000;102:e126–e163

<sup>17</sup> Varicose Veins – Treatment (May-07-2020), <https://www.nhs.uk/conditions/varicose-veins/treatment/>

DVT is a condition of blood clots in the deep veins of the leg causing decreased or altered blood flow. These clots can break loose and travel along the bloodstream before getting stuck in distal blood vessels, obstructing blood flow and causing tissue damage. The occurrence of such a blockage in the lungs is referred to as a pulmonary embolism, which is a life-threatening condition.<sup>18</sup>

Physical examination may reveal absent pedal pulses indicating arterial cause, varicose veins indicating venous cause, or obvious arthritis or sensory deficits indicating non-vascular causes. An Ankle Brachial Index (“ABI”) of less than 0.8 or more than 1.2 indicates arterial disease. Since the vessels may be calcified in diabetes mellitus, chronic kidney disease, and in older adults, ABIs can be misleading.<sup>19</sup> Additional symptoms of DVT may include leg swelling, pain, warmth and erythema.<sup>20</sup>

The standard course of treatment for DVT includes anti-coagulants, thrombolytics, and more invasive procedures such as the insertion of an inferior vena cava filter and/or a thrombectomy/embolectomy surgical procedure.<sup>21</sup>

### **Overlapping Symptomology and Divergent Treatments**

As set forth above, the presenting symptomology for each of these conditions overlaps. Specifically, PAD, CVI and DVT all present with pain in the affected extremity. Often patients suffering from PAD, CVI and/or DVT are diabetic and obese. As such, a patient presenting with leg pain may not be able to articulate the exact details of their leg pain and its source. In addition, from a population health perspective, a treating provider<sup>22</sup> has found, through their more than 30 years of practice, that patients who are suffering from diabetes and are obese can be suffering from more than one of these conditions. Since the presenting symptomology is not divergent, a physician cannot perform a physical examination to determine the conditions from which a patient may be suffering, rather, a physician must order a doppler to diagnose the patient.

The treatment for each of these conditions is also wildly divergent, even from a medical management perspective. Patients with PAD are prescribed cholesterol-lowering medications, high blood pressure medications, blood glucose medications, and blood thinners, while patients with DVT are prescribed anti-coagulants, and patients with CVI are not generally prescribed any pharmaceutical interventions; rather, they are prescribed exercise and equipment such as compression stockings.

### **Case Study – Sample Patient A.N.**

---

<sup>18</sup> Deep Vein Thrombosis (DVT) (Dec-22-2020), <https://www.mayoclinic.org/diseases-conditions/deep-vein-thrombosis/symptoms-causes/syc-20352557>

<sup>19</sup> AbuRahma AF, Adams E, AbuRahma J, Mata LA, Dean LS, Caron C, Sloan J. Critical analysis and limitations of resting ankle-brachial index in the diagnosis of symptomatic peripheral arterial disease patients and the role of diabetes mellitus and chronic kidney disease. *J. Vasc. Surg.* 2020 Mar. 1 (Vol. 71, Issue 3, p.937-945) doi: 10.1016/j.jvs.2019.05.050

<sup>20</sup> Hirsh J, Hull RD, Raskob GE. Clinical features and diagnosis of venous thrombosis. *J Am Coll Cardiol.* 1986 Dec;8(6 Suppl B):114B-127B. doi: 10.1016/s0735-1097(86)80013-4. PMID: 3537064.

<sup>21</sup> Diagnosis and Treatment of Venous Thromboembolism (Feb-07-2020), <https://www.cdc.gov/ncbddd/dvt/diagnosis-treatment.html>

<sup>22</sup> Alexander G. Salerno, M.D., NPI 1962476903

A recent case study by the aforementioned treating provider of Patient A.N., for whom and both arterial and venous ultrasounds were medically necessary and performed, illustrates the LCD's outdated medical necessity standards for performance of arterial and venous ultrasonography on the same date of service.

Patient A.N. presented in October 2017, complaining of severe pain and worsening intermittent bilateral claudication of her lower extremities, cramps, fatigue, and bilateral pedal edema. A.N.'s past medical history included symptomatic chronic venous insufficiency (CVI) and historical use of tobacco products. A.N.'s treatment history for CVI consisted of conservative therapies, including compression stockings, elevation of legs, and pain management via over-the-counter non-steroidal anti-inflammatory drugs. Accordingly, per the LCD, Patient A.N.'s clinical presentation displayed one of the covered indications for vein mapping (CPT Code 93970): suspected valvular incompetence.

In patients with symptomatic CVI or symptomatic<sup>23</sup> varicose veins suspected to be secondary to venous insufficiency, vein mapping is indicated for confirmation of CVI prior to treatment. Additionally, based on Patient A.N.'s clinical presentation and past medical history, the treating provider determined that an arterial doppler was indicated in order to rule out PAD.

In this case study, the provider, a physician who is board-certified in internal medicine, determined that both the arterial doppler and vein mapping were clinically indicated based on the patient's clinical presentation and, per his medical judgment and experience, required for the proper diagnosis and treatment of the patient. Delaying either the arterial doppler or vein mapping, in order to comply with the LCD, would unnecessarily delay diagnosis and treatment of a patient whose symptoms equally, and urgently, indicated both arterial and venous pathology, potentially subjecting the patient to an adverse outcome through delayed diagnosis, delayed treatment, and/or loss to follow-up.

### **Conclusion**

LCDs are decisions made by Medicare Administrative Contractors ("MACs"), such as Novitas, that determine if benefits provided by Medicare cover certain conditions. While MACs act in good faith to make their determinations based on the currently available medical literature, the standard of care for medicine evolves over time. As such, it is our belief that the LCD no longer reflects the current standard of care.

---

<sup>23</sup> e.g. significant pain or edema of the lower leg, ulceration, thickening and discoloration

Based on the foregoing, we respectfully submit that it is in the best interests of Medicare beneficiaries for Novitas to strike Limitations Section 3 from Local Coverage Determination L35451. Please let us know if you have any questions on this Reconsideration Request. We look forward Novitas' response.

Very truly yours,

*/s/ Mohamed Nabulsi*

Mohamed H. Nabulsi, Esq.

## Bibliography

Duplex ultrasound (Jan-12-2022), <https://medlineplus.gov/ency/article/003433.htm>.

Ultrasound - Venous (Extremities) (Feb-5-2019),  
<https://www.radiologyinfo.org/en/info/venousus>.

McDermott MM, Kerwin DR, Liu K, et al. Prevalence and significance of unrecognized lower extremity peripheral arterial disease in general medicine practice. *J Gen Intern Med.* 2001;16(6):384–390.

Guirguis-Blake JM, Evans CV, Redmon N, Lin JS. Screening for peripheral artery disease using the ankle-brachial index: updated evidence report and systematic review for the US Preventative Services Task Force. *JAMA.* 2018;320(2):184-196. DOI: 10.1001/jama.2018.4250

Overview of lower extremity chronic venous disease (Sep-22-2020),  
[https://www.uptodate.com/contents/overview-of-lower-extremity-chronic-venous-disease?search=venous%20insufficiency&source=search\\_result&selectedTitle=1~150&usage\\_type=default&display\\_rank=1](https://www.uptodate.com/contents/overview-of-lower-extremity-chronic-venous-disease?search=venous%20insufficiency&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1)

Harrison's Principles of Internal Medicine, 19e 302: Arterial Diseases of the Extremities, A. Creager Mark; Loscalzo Joseph

Hur KY, Jun JE, Choi YJ, et al. Color Doppler Ultrasonography Is a Useful Tool for Diagnosis of Peripheral Artery Disease in Type 2 Diabetes Mellitus Patients with Ankle-Brachial Index 0.91 to 1.40. *Diabetes Metab J.* 2018;42(1):63-73. doi:10.4093/dmj.2018.42.1.63.  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5842302/>

Yadav MK, Mohaammed AKM, Puramadathil V, Geetha D, Unni M. Lower extremities arteries. *Cardiovasc. Diagn. Ther.* 2019 Aug;9(Suppl 1):S174-S182 doi: 10.21037/cdt.2019.07.08.. PMID: 31559162; PMCID: PMC6732106

Hwang JY. Doppler ultrasonography of the lower extremity arteries: anatomy and scanning guidelines. *Ultrasonography.* 2017 Apr;36(2):111-119. doi: 10.14366/usg.16054. Epub 2017 Jan 18. PMID: 28219004; PMCID: PMC5381852

Shabani Varaki E, Gargiulo GD, Penkala S, Breen PP. Peripheral vascular disease assessment in the lower limb: a review of current and emerging non-invasive diagnostic methods. *Biomed. Eng. Online.* 2018 May 11;17(1):61. doi: 10.1186/s12938-018-0494-4. PMID: 29751811; PMCID: PMC5948740.

Criqui MH, Langer RD, Fronck A, Feigelson HS, Klauber MR, McCann TJ, et al. Mortality over a period of 10 years in patients with peripheral arterial disease. *N. Engl. J. Med.* 1992;326(6):381.

Leng GC, Fowkes FG, Lee AJ, Dunbar J, Housely R, Ruckley CV. Use of ankle pressure index to predict cardiovascular events and death: a cohort study. *BMJ.* 1996;313(7070):1440.

Gerhard-Herman MD, Gornick HL, Barret C, Barshes NR, et al. 2016 AHA/ACC Guideline on the Management of Patients with Lower Extremity Peripheral Artery Disease: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *Circulation.* 2017;135(12):e726. Epub 2016 Nov 13.

Hirsch AT, Haskal ZJ, Hertzler NR, Bakal CW, Creager MA, et al. ACC/AHA 2005 Practice Guidelines for the management of patients with peripheral arterial disease (lower extremity, renal, and abdominal aortic): a collaborative report from the American Association of Vascular Surgery/Society for Vascular Surgery, Society of Cardiovascular Angiography and Interventions, Society for Vascular Medicine and Biology, Society of Interventional Radiology, and the ACC/AHA Task Force on Practice Guidelines. *Circulation.* 2006;113(11):e4634

Peripheral artery disease (PAD) (Jan-14-2021), <https://www.mayoclinic.org/diseases-conditions/peripheral-artery-disease/diagnosis-treatment/drc-20350563>.

Patel SK, Surowiec SM. Venous Insufficiency. [Updated 2021 Aug 4]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2021 Jan-. Available from <https://www.ncbi.nlm.nih.gov/books/NBK430975/>

A. N. Nicolaides. Investigation of chronic venous insufficiency: A consensus statement. *Circulation.* 2000;102:e126–e163 <https://www.ahajournals.org/doi/10.1161/01.CIR.102.20.e126>

Varicose Veins – Treatment (May-07-2020), <https://www.nhs.uk/conditions/varicose-veins/treatment/>

Deep Vein Thrombosis (DVT) (Dec-22-2020), <https://www.mayoclinic.org/diseases-conditions/deep-vein-thrombosis/symptoms-causes/syc-20352557>

AbuRahma AF, Adams E, AbuRahma J, Mata LA, Dean LS, Caron C, Sloan J. Critical analysis and limitations of resting ankle-brachial index in the diagnosis of symptomatic peripheral arterial disease patients and the role of diabetes mellitus and chronic kidney disease. *J. Vasc. Surg.* 2020 Mar. 1 (Vol. 71, Issue 3, p.937-945) doi: 10.1016/j.jvs.2019.05.050  
<https://www.jvascsurg.org/action/showPdf?pii=S0741-5214%2819%2931662-3>

Hirsh J, Hull RD, Raskob GE. Clinical features and diagnosis of venous thrombosis. *J Am Coll Cardiol.* 1986 Dec;8(6 Suppl B):114B-127B. doi: 10.1016/s0735-1097(86)80013-4. PMID: 3537064.

Diagnosis and Treatment of Venous Thromboembolism (Feb-07-2020),  
<https://www.cdc.gov/ncbddd/dvt/diagnosis-treatment.html>

## **Exhibits**

- A. Local Coverage Determination L35451
- B. Local Coverage Article A52993



# EXHIBIT A

**Non-Invasive Peripheral Venous Studies**

L35451

**Contractor Information**

Contractor Name	Contract Type	Contract Number	Jurisdiction	States
<u>Novitas Solutions, Inc.</u>	A and B MAC	04111 - MAC A	J - H	Colorado
<u>Novitas Solutions, Inc.</u>	A and B MAC	04112 - MAC B	J - H	Colorado
<u>Novitas Solutions, Inc.</u>	A and B MAC	04211 - MAC A	J - H	New Mexico
<u>Novitas Solutions, Inc.</u>	A and B MAC	04212 - MAC B	J - H	New Mexico
<u>Novitas Solutions, Inc.</u>	A and B MAC	04311 - MAC A	J - H	Oklahoma
<u>Novitas Solutions, Inc.</u>	A and B MAC	04312 - MAC B	J - H	Oklahoma
<u>Novitas Solutions, Inc.</u>	A and B MAC	04411 - MAC A	J - H	Texas
<u>Novitas Solutions, Inc.</u>	A and B MAC	04412 - MAC B	J - H	Texas
<u>Novitas Solutions, Inc.</u>	A and B MAC	04911 - MAC A	J - H	Colorado New Mexico Oklahoma Texas
<u>Novitas Solutions, Inc.</u>	A and B MAC	07101 - MAC A	J - H	Arkansas
<u>Novitas Solutions, Inc.</u>	A and B MAC	07102 - MAC B	J - H	Arkansas
<u>Novitas Solutions, Inc.</u>	A and B MAC	07201 - MAC A	J - H	Louisiana
<u>Novitas Solutions, Inc.</u>	A and B MAC	07202 - MAC B	J - H	Louisiana
<u>Novitas Solutions, Inc.</u>	A and B MAC	07301 - MAC A	J - H	Mississippi
<u>Novitas Solutions, Inc.</u>	A and B MAC	07302 - MAC B	J - H	Mississippi
<u>Novitas Solutions, Inc.</u>	A and B MAC	12101 - MAC A	J - L	Delaware
<u>Novitas Solutions, Inc.</u>	A and B MAC	12102 - MAC B	J - L	Delaware

Contractor Name	Contract Type	Contract Number	Jurisdiction	States
<a href="#">Novitas Solutions, Inc.</a>	A and B MAC	12201 - MAC A	J - L	District of Columbia
<a href="#">Novitas Solutions, Inc.</a>	A and B MAC	12202 - MAC B	J - L	District of Columbia
<a href="#">Novitas Solutions, Inc.</a>	A and B MAC	12301 - MAC A	J - L	Maryland
<a href="#">Novitas Solutions, Inc.</a>	A and B MAC	12302 - MAC B	J - L	Maryland
<a href="#">Novitas Solutions, Inc.</a>	A and B MAC	12401 - MAC A	J - L	New Jersey
<a href="#">Novitas Solutions, Inc.</a>	A and B MAC	12402 - MAC B	J - L	New Jersey
<a href="#">Novitas Solutions, Inc.</a>	A and B MAC	12501 - MAC A	J - L	Pennsylvania
<a href="#">Novitas Solutions, Inc.</a>	A and B MAC	12502 - MAC B	J - L	Pennsylvania
<a href="#">Novitas Solutions, Inc.</a>	A and B MAC	12901 - MAC A	J - L	Delaware District of Columbia Maryland New Jersey Pennsylvania


## LCD Information

### Document Information

LCD ID  
L35451

LCD Title  
Non-Invasive Peripheral Venous Studies

Proposed LCD in Comment Period  
N/A

Source Proposed LCD  
[DL35451](#) 

Original Effective Date  
For services performed on or after 10/01/2015

Revision Effective Date  
For services performed on or after 12/17/2020

Revision Ending Date  
N/A

Retirement Date  
N/A

## Notice Period Start Date

10/13/2016

## Notice Period End Date

11/30/2016

## AMA CPT / ADA CDT / AHA NUBC Copyright Statement

CPT codes, descriptions and other data only are copyright 2021 American Medical Association. All Rights Reserved. Applicable FARS/HHSARS apply.

Fee schedules, relative value units, conversion factors and/or related components are not assigned by the AMA, are not part of CPT, and the AMA is not recommending their use. The AMA does not directly or indirectly practice medicine or dispense medical services. The AMA assumes no liability for data contained or not contained herein.

Current Dental Terminology © 2021 American Dental Association. All rights reserved.

Copyright © 2013 - 2021, the American Hospital Association, Chicago, Illinois. Reproduced by CMS with permission. No portion of the American Hospital Association (AHA) copyrighted materials contained within this publication may be copied without the express written consent of the AHA. AHA copyrighted materials including the UB-04 codes and descriptions may not be removed, copied, or utilized within any software, product, service, solution or derivative work without the written consent of the AHA. If an entity wishes to utilize any AHA materials, please contact the AHA at 312-893-6816. Making copies or utilizing the content of the UB-04 Manual, including the codes and/or descriptions, for internal purposes, resale and/or to be used in any product or publication; creating any modified or derivative work of the UB-04 Manual and/or codes and descriptions; and/or making any commercial use of UB-04 Manual or any portion thereof, including the codes and/or descriptions, is only authorized with an express license from the American Hospital Association. To license the electronic data file of UB-04 Data Specifications, contact Tim Carlson at (312) 893-6816. You may also contact us at [ub04@aha.org](mailto:ub04@aha.org).

## CMS National Coverage Policy

This LCD supplements but does not replace, modify or supersede existing Medicare applicable National Coverage Determinations (NCDs) or payment policy rules and regulations for non-invasive peripheral venous studies. Federal statute and subsequent Medicare regulations regarding provision and payment for medical services are lengthy. They are not repeated in this LCD. Neither Medicare payment policy rules nor this LCD replace, modify or supersede applicable state statutes regarding medical practice or other health practice professions acts, definitions and/or scopes of practice. All providers who report services for Medicare payment must fully understand and follow all existing laws, regulations and rules for Medicare payment for non-invasive peripheral venous studies and must properly submit only valid claims for them. Please review and understand them and apply the medical necessity provisions in the policy within the context of the manual rules. Relevant CMS manual instructions and policies may be found in the following Internet-Only Manuals (IOMs) published on the CMS Web site:

### IOM Citations:

- CMS IOM Publication 100-02, *Medicare Benefit Policy Manual*, Chapter 15, Section 80 - Requirements for Diagnostic X-Ray, Diagnostic Laboratory, and Other Diagnostic Tests
- CMS IOM Publication 100-03, *Medicare National Coverage Determinations (NCD) Manual*, Chapter 1,
  - Part 1, Section 20.14 - Plethysmography
  - Part 4, Section 220.5 - Ultrasound Diagnostic Procedures
- CMS IOM Publication 100-04, *Medicare Claims Processing Manual*,
  - Chapter 13 - Radiology Services and Other Diagnostic Procedures, Section 10 - ICD Coding for Diagnostic Tests and Section 20 - Payment Conditions for Radiology Services
- CMS IOM Publication 100-08, *Medicare Program Integrity Manual*, Chapter 13, Section 13.5.4 Reasonable and Necessary Provisions in LCDs

### Social Security Act (Title XVIII) Standard References:

- Title XVIII of the Social Security Act, Section 1862(a)(1)(A) states that no Medicare payment shall be made for items or services which are not reasonable and necessary for the diagnosis or treatment of illness or injury.
- Title XVIII of the Social Security Act, Section 1862(a)(7). This section excludes routine physical examinations.

## Coverage Guidance

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

Compliance with the provisions in this policy may be monitored and addressed through post payment data analysis and subsequent medical review audits.

## History/Background and/or General Information

Non-invasive vascular diagnostic studies utilize ultrasonic Doppler and physiologic principles 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." (AMA 2018 CPT book, page 654). A hard copy, or a soft copy convertible to a hard copy, provides a permanent record of the study performed and must be of a quality that meets accepted radiologic standards.

A **duplex scan** combines Doppler spectrum analysis and conventional ultrasound, to visualize the structure of blood vessels, how the blood is flowing through the vessels, and whether there is any obstruction in the vessels.

A **non-invasive physiologic study** implies functional measurement procedures including Doppler waveform analysis, blood pressure measurements, or plethysmography.

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

## Covered Indications

### 1. Deep Vein Thrombosis (DVT)

Due to the risk of DVT associated with pulmonary embolism (PE), objective testing of venous function is considered reasonable and necessary in patients that are candidates for anticoagulation or invasive therapeutic procedures for any one of the following:

- To evaluate clinical signs or symptoms suggestive of acute or new onset DVT such as extremity swelling, tenderness, inflammation or erythema.
- Investigation for DVT as the source of a suspected or confirmed pulmonary embolism.
- Evaluation of unexplained extremity edema, especially unilateral or asymmetric, in an individual at risk for DVT (e.g., immobile, status-post major surgical procedure, indwelling vascular catheter or prosthesis, or postpartum). Bilateral or symmetric limb edema is more likely to result from a systemic disorder (e.g., congestive heart failure, hypoalbuminemia, arthritis) or certain drugs. Therefore, bilateral limb edema is considered reasonable and necessary for venous studies in individuals at risk for DVT when there is no otherwise plausible cause.
- Follow-up for patients with known venous thrombosis to monitor for progression, determine course of treatment or the need to alter treatment based on new symptoms.

### 2. Chronic Venous Insufficiency

Chronic venous insufficiency is impaired venous return which may cause lower extremity symptoms. Objective testing of venous function is considered reasonable and necessary in patients that are candidates for anticoagulation or invasive therapeutic procedures for any one of the following:

- Evaluation of Postthrombotic (Postphlebotic) Syndrome (PTS) in patients with symptoms of PTS (e.g., chronic leg pain, leg heaviness, leg swelling, leg itching or ulcers on the leg).
- Evaluation of suspected valvular incompetence in patients with symptomatic chronic venous insufficiency or symptomatic varicose veins (e.g., significant pain or edema of the lower leg, ulceration, thickening and discoloration) suspected to be secondary to venous insufficiency in order to confirm this diagnosis prior to treatment.
- Post-procedural assessment of venous ablation. If a great or small saphenous vein undergoes ablation, a duplex scan of the affected side is considered reasonable and necessary postoperatively within 72 hours after the procedure, to assess the result of the surgery and the possibility of propagation of a thrombus.

Please see the companion article Billing and Coding: Non-Invasive Peripheral Venous Studies, A52993, for ICD-10-CM code(s) to describe a limited venous duplex performed within 72 hours of a saphenous vein ablation procedure.

Note: Additional coverage information pertinent to the treatment of varicose veins and ablation therapy is located in LCD L34924, Treatment of Chronic Venous Insufficiency of the Lower Extremities.

### 3. Preoperative Examinations

Non-Invasive Peripheral Venous Studies are considered reasonable and necessary for select preoperative examinations that meet criteria for coverage as follows:

- Bypass surgery - 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 service is considered reasonable and necessary when the results of the study are needed to locate suitable graft vessels. The need for bypass surgery must be determined prior to performance of the test.
- Hemodialysis access surgery - Vessel mapping for hemodialysis is indicated for the preoperative examination of vessels prior to hemodialysis access site surgery in patients with end stage renal disease (ESRD). This service is considered reasonable and necessary when the results of the study are needed to determine appropriate vessel utilization (i.e., when the patient's clinical evaluation does not readily lead to the selection of a vein that is suitable for creating a dialysis fistula). The need for a hemodialysis access site must be determined prior to performance of the test.

#### Limitations

1. Objective testing of peripheral venous function is considered not reasonable and necessary and therefore non-covered for any one of the following:

- Asymptomatic varicose veins
- Routine screening tests

Note: Please see the billing and coding article for Non-Invasive Peripheral Venous Studies, A52993, for appropriate ICD-10-CM diagnosis code(s) used to indicate screening tests performed in the absence of a specific sign, symptom, or complaint. Screening tests performed in the absence of a specific sign, symptom, or complaint will result in the denial of claims as non-covered screening services.

2. Non-invasive vascular studies are considered not reasonable and necessary if the results are not needed for clinical decision making. If the study results will have no impact on the decision for further diagnostic or therapeutic procedures or will not provide any unique diagnostic information that would impact patient management, then the non-invasive studies are not reasonable and necessary. For example, if it is evident 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 reasonable and necessary.

3. The following limitations apply to multiple non-invasive studies on the same encounter or same day:

- Performance of both non-invasive extracranial arterial studies and non-invasive evaluation of extremity veins during the same encounter is rarely medically necessary. Documentation must clearly support the medical necessity if both procedures are performed during the same encounter, and be made available upon request.
- Because 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 is rarely medically necessary. Consequently, documentation must clearly support the medical necessity of both procedures if performed during the same encounter, and be made available upon request.
- It is rarely medically necessary to perform lower extremity and upper extremity studies on the same day. Documentation must clearly support the medical necessity of both upper and lower extremities if performed on the same day, and be made available upon request.

4. "The use of a simple hand-held or other Doppler device that does not produce hard copy data 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." (AMA 2018 CPT Book, Page 654) Doppler procedures performed with zero-

crossers (i.e., analog [strip chart recorder] analysis) are also included in any other E/M service. Therefore, it is not reasonable and necessary to report these procedures as separate services.

5. Please refer to NCD 20.14, for a list of plethysmography methods that are not covered.

### Training Requirements/Certifications

The accuracy of non-invasive diagnostic testing studies depends on the knowledge, skill and experience of the physician and/or technologist performing and interpreting the study. Documentation of applicable training and experience must be maintained and made available upon request. Services will be considered reasonable and necessary only if performed by appropriately trained personnel. Please see CMS IOM Publication 100-02, *Medicare Benefit Policy Manual*, Chapter 15, Section 80, for supervision definitions and requirements for diagnostic tests.

All non-invasive vascular studies must be:

1. Performed by a qualified physician; or
2. Performed under the general supervision of a qualified physician by a licensed\* technologist who is certified in vascular technology; or
3. Performed in an accredited vascular laboratory.

\*State licensure for a technologist is required in addition to appropriate recognized certification. Documentation of current, active licensure must be maintained and made available upon request. In the absence of a state/federal district licensing board, the requirement for licensure is waived.

A **qualified physician** for this service/procedure is defined as:

- A. Physician is properly enrolled in Medicare; and
- 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.

Appropriate technologist certification is limited to American Registry of Diagnostic Medical Sonographers (ARDMS) certification as a Registered Vascular Technologist (RVT), Cardiovascular Credentialing International (CCI) certification as a Registered Vascular Specialist (RVS) or Registered Phlebology Sonographer (RPhS), and the American Registry of Radiologic Technologists (ARRT) certification in Vascular Sonography (VS). Appropriate laboratory accreditation is limited to the American College of Radiology (ACR) Vascular Ultrasound Program, and the Intersocietal Accreditation Commission (IAC) division of Vascular Testing.

The contractor does not establish a credentialing service but the contractor is authorized to determine which organizations it recognizes. For example, the use of the word "national" in the organization's name does not, in itself, meet Medicare standards for national credentialing.

Note: For services performed in an Independent Diagnostic Testing Facility (IDTF), please refer to Local Coverage Determination (LCD) L35448, Independent Diagnostic Testing Facility (IDTF), and related Local Coverage Article A53252, Independent Diagnostic Testing Facility (IDTF), for additional information.

This LCD imposes frequency limitations. For frequency limitations please refer to the Utilization Guidelines section below.

**Notice:** Services performed for any given diagnosis must meet all of the indications and limitations stated in this LCD, the general requirements for medical necessity as stated in CMS payment policy manuals, any and all existing CMS national coverage determinations, and all Medicare payment rules.

### Summary of Evidence

N/A

## General Information

### Associated Information

Refer to the Local Coverage Article: Billing and Coding: Non-Invasive Peripheral Venous Studies, A52993, for all coding information.

### Documentation Requirements

1. All documentation must be maintained in the patient's medical record and made available to the contractor upon request.
2. Every page of the record must be legible and include appropriate patient identification information (e.g., complete name, dates of service[s]). The documentation must include the legible signature of the physician or non-physician practitioner responsible for and providing the care to the patient.
3. The medical record documentation must support the medical necessity of the services as stated in this policy.
4. The medical necessity for performing both non-invasive extracranial arterial studies and non-invasive evaluation of extremity veins during the same encounter must be clearly documented in the medical record.
5. The medical necessity for performing simultaneous arterial and venous studies during the same encounter must be clearly documented in the medical record.
6. The medical necessity of performing lower extremity and upper extremity studies on the same day must be clearly documented in the medical record.

### Utilization Guidelines

In accordance with CMS Ruling 95-1 (V), utilization of these services should be consistent with locally acceptable standards of practice.

- Only one preoperative limited scan is considered reasonable and necessary for bypass surgery.
- Only one preoperative vessel mapping for hemodialysis access scan is considered reasonable and necessary per hemodialysis access site surgery.
- 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.
- One Doppler ultrasound study or duplex scan will be covered for documentation of disease and mapping for chronic venous insufficiency or symptomatic varicose veins.

**Notice:** This LCD imposes utilization guideline limitations. Despite Medicare allowing up to these maximums, 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 service reported to be clearly demonstrated in the patient's medical record. Medicare expects that patients will not routinely require the maximum allowable number of services.

### Sources of Information

Contractor is not responsible for the continued viability of websites listed.

### Other Contractor Policies

L33693, Non-Invasive Evaluation of Extremity Veins, First Coast Service Options Jurisdiction N Local Coverage Determination

L34229, Noninvasive Peripheral Venous Studies, Noridian Healthcare Solutions Jurisdiction E Local Coverage Determination



L33627, Non-Invasive Vascular Studies, National Government Services Jurisdiction K Local Coverage Determination

Contractor Medical Directors

**Bibliography**

ACR-AIUM-SPR-SRU Practice Parameter for the Performance of Peripheral Venous Ultrasound Examination. *American College of Radiology*. Revised 2015 (Resolution 33).

Douketis JD. Chronic Venous Insufficiency and Postphlebotic Syndrome. *Merck Manual* professional version online last revised May 2014: <http://www.merckmanuals.com/professional/cardiovascular-disorders/peripheral-venous-disorders/chronic-venous-insufficiency-and-postphlebotic-syndrome>.

Eskandari MK, Pearce WH, Yao J. *Current Vascular Surgery 2012*. Shelton, CT: People’s Medical Publishing House – USA, 2013. Accessed online on August 18, 2016.

Harlander-Locke M, Jimenez JC, Lawrence PF, et al. Management of endovenous heat-induced thrombus using a classification system and treatment algorithm following segmental thermal ablation of the small saphenous vein. *Journal of Vascular Surgery*, August 2013;58(2):427-432.

Khilnani NM, Grassi CJ, Kundu S, et al. Multi-society Consensus Quality Improvement Guidelines for the Treatment of Lower-extremity Superficial Venous Insufficiency with Endovenous Thermal Ablation from the Society of Interventional Radiology, Cardiovascular Interventional Radiological Society of Europe, American College of Phebology , and Canadian Interventional Radiology Association. *J Vasc Interv Radiol* 2010;21:14-31.

Lawrence, Peter F et al, Classification of proximal endovenous closure levels and treatment algorithm. *Journal of Vascular Surgery*. August 2010, Vol 52 (2):388-393.

Luckraz H, Lowe J, Pugh N, et al. Pre-operative long saphenous vein mapping predicts vein anatomy and quality leading to improved post-operative leg morbidity. *Interactive Cardiovascular and Thoracic Surgery* 7. 2008;188-191.

Vazquez, SR, Kahn, SR. Postthrombotic Syndrome. *Circulation*. 2010;121:e217-e219.

L27506, Non-Invasive Peripheral Venous Studies, Novitas Solutions Jurisdiction L Local Coverage Determination

L34924, Treatment of Varicose Veins and Venous Stasis Disease of the Lower Extremities, Novitas Solutions Jurisdiction H & L Local Coverage Determination

L35448, Independent Diagnostic Testing Facility (IDTF), Novitas Solutions Jurisdiction H & L Local Coverage Determination

A53252 Independent Diagnostic Testing Facility (IDTF), Novitas Solutions Jurisdiction H & L Local Coverage Article

**Revision History Information**

Revision History Date	Revision History Number	Revision History Explanation	Reasons for Change
-----------------------	-------------------------	------------------------------	--------------------

Revision History Date	Revision History Number	Revision History Explanation	Reasons for Change
12/17/2020	R9	LCD revised and published on 12/17/2020 to update the reference to the treatment of varicose veins with the title of the new LCD 'Treatment of Chronic Venous Insufficiency of the Lower Extremities' (L34924) in the 'Covered Indications' section, Bullet #2 Chronic Venous Insufficiency in response to the new LCD becoming effective 12/27/2020. Minor formatting changes made throughout.	<ul style="list-style-type: none"> <li>• Other (Non-Substantive Change)</li> </ul>
10/17/2019	R8	LCD revised and published on 10/17/2019. Consistent with CMS Change Request 10901, the entire coding section has been removed from the LCD and placed into the related Billing and Coding Article, A52993. All CPT codes and coding information within the text of the LCD has been placed in the Billing and Coding Article. The following has been removed from the Documentation Requirements: The submitted medical record must support the use of the selected ICD-10-CM code(s). The submitted CPT/HCPCS code must describe the service performed.	<ul style="list-style-type: none"> <li>• Other (CMS Change Request 10901)</li> </ul>
03/21/2019	R7	LCD revised and published on 03/21/2019 effective for dates of service on and after 03/21/2019 to remove CMS IOM and NCD language and all codes from the LCD per CMS Change Request (CR) 10901. IOM citation added for IOM language removed per CMS CR 10901 and IOM citation for National Correct Coding Initiative (NCCI) removed consistent with the removal of billing and coding information. There has been no change in the content to the LCD.	<ul style="list-style-type: none"> <li>• Other (CMS Requirement)</li> </ul>
07/12/2018	R6	<p>LCD revised and published on 07/12/2018 to update per LCD annual review. The IOM references in the "CMS National Coverage Policy" section were updated and the references to the 2016 AMA CPT codebook were updated to the 2018 version. No change was made to coverage content.</p> <p>At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; therefore, not all the fields included on the LCD are applicable as noted in this policy.</p>	<ul style="list-style-type: none"> <li>• Other (LCD Annual Review)</li> </ul>

Revision History Date	Revision History Number	Revision History Explanation	Reasons for Change
10/01/2017	R5	<p>LCD revised and published on 10/05/2017 effective for dates of service on and after 10/01/2017 to reflect the Annual ICD-10-CM Code Updates.</p> <p>The following ICD-10-CM code(s) have been added to the LCD:  <b>Group 1 Code Additions:</b> L97.115, L97.116, L97.118, L97.125, L97.126, L97.128, L97.215, L97.216, L97.218, L97.225, L97.226, L97.228, L97.315, L97.316, L97.318, L97.325, L97.326, L97.328, L97.415, L97.416, L97.418, L97.425, L97.426, L97.428, L97.515, L97.516, L97.518, L97.525, L97.526, L97.528, L97.815, L97.816, L97.818, L97.825, L97.826, and L97.828.</p> <p>The following ICD-10-CM code(s) have undergone a descriptor change: <b>Group 1 Code Descriptor Revisions:</b> I82.811, I82.812, I83.811, I83.812, I83.891, and I83.892.</p> <p>At this time 21st Century Cures Act will apply to new and revised LCDs that restrict coverage which requires comment and notice. This revision is not a restriction to the coverage determination; therefore, not all the fields included on the LCD are applicable as noted in this policy.</p>	<ul style="list-style-type: none"> <li>• Revisions Due To ICD-10-CM Code Changes</li> </ul>
01/01/2017	R4	<p>LCD revised and published on 01/12/2017 effective for dates of service on and after 01/01/2017 to reflect the annual CPT/HCPCS code updates. <b>The following CPT code has been deleted and therefore removed from this LCD:</b> 93965 has been deleted from the Group 1 codes, indications, limitations and documentation section.</p>	<ul style="list-style-type: none"> <li>• Revisions Due To CPT/HCPCS Code Changes</li> </ul>
12/01/2016	R3	<p>LCD posted for notice on 10/13/2016. LCD becomes effective for dates of service on and after 12/01/2016.</p> <p>05/19/2016 DL35451 Draft LCD posted for comment.</p>	<ul style="list-style-type: none"> <li>• Aberrant Local Utilization</li> </ul>
10/01/2016	R2	<p>LCD revised and published on 09/29/2016 effective for dates of service on and after 10/01/2016 to reflect the ICD-10 Annual Code Updates. The following ICD-10 code(s) have been deleted and therefore removed from the LCD: Group 1 codes T85.81XA, T85.82XA, T85.83XA, T85.84XA, T85.85XA, T85.86XA, and T85.89XA. The following ICD-10 code(s) have undergone a descriptor change: Group 1 codes T82.817A, T82.818A, T82.827A, T82.828A, T82.837A, T82.838A, T82.847A, T82.848A, T82.857A, T82.858A, T82.867A, T82.868A, T83.81XA, T83.82XA, T83.83XA, T83.84XA, T83.85XA, and T83.86XA. The following ICD-10 code(s) have been added to the LCD: Group 1 codes T85.818A, T85.828A, T85.838A, T85.848A, T85.858A, T85.868A, and T85.898A.</p>	<ul style="list-style-type: none"> <li>• Revisions Due To ICD-10-CM Code Changes</li> </ul>

Revision History Date	Revision History Number	Revision History Explanation	Reasons for Change
10/01/2015	R1	LCD revised and published on 12/11/2014 to add Venous Sonographer accredited by the ARRT to the list of examples of appropriate certification in the limitations section of the LCD. Article by Peter Lawrence reviewed and added to sources in response to a reconsideration requesting coverage of follow up duplex scans. No change made to the LCD in response to this reconsideration request as the language in the LCD regarding follow up duplex scans is consistent with the article.	<ul style="list-style-type: none"> <li>Reconsideration Request</li> </ul>

## Associated Documents

### Attachments

N/A

### Related Local Coverage Documents

#### Articles

[A52993 - Billing and Coding: Non-Invasive Peripheral Venous Studies](#) <sup>↗</sup>

#### LCDs

[DL35451 - \(MCD Archive Site\)](#) <sup>↗</sup>


### Related National Coverage Documents

#### NCDs

[20.14 - Plethysmography](#) <sup>↗</sup>

[220.5 - Ultrasound Diagnostic Procedures](#) <sup>↗</sup>

### Public Versions

Updated On	Effective Dates	Status	
12/11/2020	12/17/2020 - N/A	Currently in Effect	You are here

Some older versions have been archived. Please visit the [MCD Archive Site](#) <sup>↗</sup> to retrieve them.

## Keywords

N/A

# EXHIBIT B

# Billing and Coding: Non-Invasive Peripheral Venous Studies

A52993

## Contractor Information

Contractor Name	Contract Type	Contract Number	Jurisdiction	States
<u>Novitas Solutions, Inc.</u>	A and B MAC	04111 - MAC A	J - H	Colorado
<u>Novitas Solutions, Inc.</u>	A and B MAC	04112 - MAC B	J - H	Colorado
<u>Novitas Solutions, Inc.</u>	A and B MAC	04211 - MAC A	J - H	New Mexico
<u>Novitas Solutions, Inc.</u>	A and B MAC	04212 - MAC B	J - H	New Mexico
<u>Novitas Solutions, Inc.</u>	A and B MAC	04311 - MAC A	J - H	Oklahoma
<u>Novitas Solutions, Inc.</u>	A and B MAC	04312 - MAC B	J - H	Oklahoma
<u>Novitas Solutions, Inc.</u>	A and B MAC	04411 - MAC A	J - H	Texas
<u>Novitas Solutions, Inc.</u>	A and B MAC	04412 - MAC B	J - H	Texas
<u>Novitas Solutions, Inc.</u>	A and B MAC	04911 - MAC A	J - H	Colorado New Mexico Oklahoma Texas
<u>Novitas Solutions, Inc.</u>	A and B MAC	07101 - MAC A	J - H	Arkansas
<u>Novitas Solutions, Inc.</u>	A and B MAC	07102 - MAC B	J - H	Arkansas
<u>Novitas Solutions, Inc.</u>	A and B MAC	07201 - MAC A	J - H	Louisiana
<u>Novitas Solutions, Inc.</u>	A and B MAC	07202 - MAC B	J - H	Louisiana
<u>Novitas Solutions, Inc.</u>	A and B MAC	07301 - MAC A	J - H	Mississippi
<u>Novitas Solutions, Inc.</u>	A and B MAC	07302 - MAC B	J - H	Mississippi
<u>Novitas Solutions, Inc.</u>	A and B MAC	12101 - MAC A	J - L	Delaware
<u>Novitas Solutions, Inc.</u>	A and B MAC	12102 - MAC B	J - L	Delaware

Contractor Name	Contract Type	Contract Number	Jurisdiction	States
<u>Novitas Solutions, Inc.</u>	A and B MAC	12201 - MAC A	J - L	District of Columbia
<u>Novitas Solutions, Inc.</u>	A and B MAC	12202 - MAC B	J - L	District of Columbia
<u>Novitas Solutions, Inc.</u>	A and B MAC	12301 - MAC A	J - L	Maryland
<u>Novitas Solutions, Inc.</u>	A and B MAC	12302 - MAC B	J - L	Maryland
<u>Novitas Solutions, Inc.</u>	A and B MAC	12401 - MAC A	J - L	New Jersey
<u>Novitas Solutions, Inc.</u>	A and B MAC	12402 - MAC B	J - L	New Jersey
<u>Novitas Solutions, Inc.</u>	A and B MAC	12501 - MAC A	J - L	Pennsylvania
<u>Novitas Solutions, Inc.</u>	A and B MAC	12502 - MAC B	J - L	Pennsylvania
<u>Novitas Solutions, Inc.</u>	A and B MAC	12901 - MAC A	J - L	Delaware District of Columbia Maryland New Jersey Pennsylvania

## Article Information

### General Information

**Article ID**

A52993

**Article Title**

Billing and Coding: Non-Invasive Peripheral Venous Studies

**Article Type**

Billing and Coding

**Original Effective Date**

10/01/2015

**Revision Effective Date**

03/18/2021

**Revision Ending Date**

N/A

**Retirement Date**

N/A

**AMA CPT / ADA CDT / AHA NUBC Copyright Statement**

CPT codes, descriptions and other data only are copyright 2021 American Medical Association. All Rights Reserved. Applicable FARS/HHSARS apply.

Fee schedules, relative value units, conversion factors and/or related components are not assigned by the AMA, are not part of CPT, and the AMA is not recommending their use. The AMA does not directly or indirectly practice medicine or dispense medical services. The AMA assumes no liability for data contained or not contained herein.

Current Dental Terminology © 2021 American Dental Association. All rights reserved.

Copyright © 2013 - 2021, the American Hospital Association, Chicago, Illinois. Reproduced by CMS with permission. No portion of the American Hospital Association (AHA) copyrighted materials contained within this publication may be copied without the express written consent of the AHA. AHA copyrighted materials including the UB-04 codes and descriptions may not be removed, copied, or utilized within any software, product, service, solution or derivative work without the written consent of the AHA. If an entity wishes to utilize any AHA materials, please contact the AHA at 312-893-6816. Making copies or utilizing the content of the UB-04 Manual, including the codes and/or descriptions, for internal purposes, resale and/or to be used in any product or publication; creating any modified or derivative work of the UB-04 Manual and/or codes and descriptions; and/or making any commercial use of UB-04 Manual or any portion thereof, including the codes and/or descriptions, is only authorized with an express license from the American Hospital Association. To license the electronic data file of UB-04 Data Specifications, contact Tim Carlson at (312) 893-6816. You may also contact us at [ub04@aha.org](mailto:ub04@aha.org).

## CMS National Coverage Policy

### Social Security Act (Title XVIII) Standard References:

- Title XVIII of the Social Security Act, Section 1833(e) states that no payment shall be made to any provider of services or other person under this part unless there has been furnished such information as may be necessary in order to determine the amounts due such provider or other person under this part for the period with respect to which the amounts are being paid or for any prior period.

## Article Guidance

### Article Text

This Billing and Coding Article provides billing and coding guidance for Local Coverage Determination (LCD), L35451 Non-Invasive Peripheral Venous Studies. Please refer to the LCD for reasonable and necessary requirements.

### Coding Guidance

**Notice:** It is not appropriate to bill Medicare for services that are not covered (as described by the entire LCD) as if they are covered. When billing for non-covered services, use the appropriate modifier.

**Note:** When an uninterpretable study results in performing another type of study, only the successful study should be billed.

To report non-invasive peripheral venous studies for select medically necessary preoperative examinations use:

CPT code 93971 (Duplex scan of extremity veins including responses to compression and other maneuvers; unilateral or limited study) for the following:

- Preoperative examination of potential harvest vein grafts to be used during bypass surgery.
  - The need for bypass surgery must be determined prior to performance of the test.
  - Only one preoperative scan is covered for bypass surgery.
  - Use ICD-10-CM code Z01.810 when reporting this procedure.

CPT codes: 93985 (Ultrasound scan of blood flow in extremity on both sides of body for preoperative assessment of blood vessel for dialysis access) and 93986 (Ultrasound scan of blood flow in extremity on one side for preoperative assessment of blood vessel for dialysis access) for the following:

- Preoperative examination of vessels prior to hemodialysis access site surgery in patients with end stage renal disease.
  - The need for a hemodialysis access site must be determined prior to performance of the test.
  - Only one preoperative scan is covered per hemodialysis access site surgery.
  - Use ICD-10-CM code Z01.818 when reporting this procedure with an eligible secondary diagnosis.

As noted above, correct coding guidelines indicate that CPT code 93971 should be used to report either a limited bilateral or a complete unilateral study (only one service should be reported). It would not be appropriate to report -50 modifier with CPT code 93971 for a limited bilateral study.

The CPT code 93970 is described as a "complete bilateral study." The CPT code 93971 states: "unilateral or limited study." Both codes can be used for bilateral studies; 93970 for complete, and 93971 for limited. If a complete or limited bilateral



study is done on both the upper and the lower extremities, the corresponding code can be reported once for each study performed (i.e., once for the upper extremities and once for the lower extremities). Providers should append modifier 76, repeat service by the same provider, or modifier 77, repeat service by another provider, to the second code to indicate that two separate, distinct studies were performed. There should be a separate written report/interpretation for each study performed.

**Note:** Effective 1/1/2017, the CPT code 93965 has been deleted with the annual CPT/HCPCS code updates. There is no replacement code for CPT code 93965. It would be inappropriate to report a "not otherwise classified" (NOC) code for this service (Noninvasive physiologic studies of extremity veins, complete bilateral study [eg, doppler waveform analysis with responses to compression and other maneuvers, phleborheography, impedance plethysmography]).

ICD-10-CM diagnosis code Z13.9 (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 ICD-10-CM code Z09 only to describe a limited venous duplex (CPT code 93971) performed within 72 hours of a saphenous vein ablation procedure (CPT codes 36473, 36474, 36475, 36476, 36478, 36479, 36482, or 36483).

## Coding Information

### CPT/HCPCS Codes

#### Group 1 (2 Codes)

##### Group 1 Paragraph

**Note:** Providers are reminded to refer to the long descriptors of the CPT codes in their CPT book.

##### Group 1 Codes

Code	Description
93970	Extremity study
93971	Extremity study

#### Group 2 (2 Codes)

##### Group 2 Paragraph

N/A

##### Group 2 Codes

Code	Description
93985	Dup-scan hemo compl bi std
93986	Dup-scan hemo compl uni std

### CPT/HCPCS Modifiers

## ICD-10-CM Codes that Support Medical Necessity

### Group 1 (336 Codes)

#### Group 1 Paragraph

It is the provider's responsibility to select codes carried out to the highest level of specificity and selected from the ICD-10-CM code book appropriate to the year in which the service is rendered for the claim(s) submitted.

The following ICD-10-CM codes support medical necessity and provide coverage for CPT codes: **93970 and 93971.**

#### Group 1 Codes

Code	Description
I26.01	Septic pulmonary embolism with acute cor pulmonale
I26.02	Saddle embolus of pulmonary artery with acute cor pulmonale
I26.09	Other pulmonary embolism with acute cor pulmonale
I26.90	Septic pulmonary embolism without acute cor pulmonale
I26.92	Saddle embolus of pulmonary artery without acute cor pulmonale
I26.93	Single subsegmental pulmonary embolism without acute cor pulmonale
I26.94	Multiple subsegmental pulmonary emboli without acute cor pulmonale
I26.99	Other pulmonary embolism without acute cor pulmonale
I74.9*	Embolism and thrombosis of unspecified artery
I80.01	Phlebitis and thrombophlebitis of superficial vessels of right lower extremity
I80.02	Phlebitis and thrombophlebitis of superficial vessels of left lower extremity
I80.03	Phlebitis and thrombophlebitis of superficial vessels of lower extremities, bilateral
I80.11	Phlebitis and thrombophlebitis of right femoral vein
I80.12	Phlebitis and thrombophlebitis of left femoral vein
I80.13	Phlebitis and thrombophlebitis of femoral vein, bilateral
I80.211	Phlebitis and thrombophlebitis of right iliac vein

Code	Description
180.212	Phlebitis and thrombophlebitis of left iliac vein
180.213	Phlebitis and thrombophlebitis of iliac vein, bilateral
180.221	Phlebitis and thrombophlebitis of right popliteal vein
180.222	Phlebitis and thrombophlebitis of left popliteal vein
180.223	Phlebitis and thrombophlebitis of popliteal vein, bilateral
180.231	Phlebitis and thrombophlebitis of right tibial vein
180.232	Phlebitis and thrombophlebitis of left tibial vein
180.233	Phlebitis and thrombophlebitis of tibial vein, bilateral
180.241	Phlebitis and thrombophlebitis of right peroneal vein
180.242	Phlebitis and thrombophlebitis of left peroneal vein
180.243	Phlebitis and thrombophlebitis of peroneal vein, bilateral
180.251	Phlebitis and thrombophlebitis of right calf muscular vein
180.252	Phlebitis and thrombophlebitis of left calf muscular vein
180.253	Phlebitis and thrombophlebitis of calf muscular vein, bilateral
180.291	Phlebitis and thrombophlebitis of other deep vessels of right lower extremity
180.292	Phlebitis and thrombophlebitis of other deep vessels of left lower extremity
180.293	Phlebitis and thrombophlebitis of other deep vessels of lower extremity, bilateral
180.8	Phlebitis and thrombophlebitis of other sites
182.1	Thrombophlebitis migrans
182.220	Acute embolism and thrombosis of inferior vena cava
182.411	Acute embolism and thrombosis of right femoral vein

Code	Description
182.412	Acute embolism and thrombosis of left femoral vein
182.413	Acute embolism and thrombosis of femoral vein, bilateral
182.421	Acute embolism and thrombosis of right iliac vein
182.422	Acute embolism and thrombosis of left iliac vein
182.423	Acute embolism and thrombosis of iliac vein, bilateral
182.431	Acute embolism and thrombosis of right popliteal vein
182.432	Acute embolism and thrombosis of left popliteal vein
182.433	Acute embolism and thrombosis of popliteal vein, bilateral
182.441	Acute embolism and thrombosis of right tibial vein
182.442	Acute embolism and thrombosis of left tibial vein
182.443	Acute embolism and thrombosis of tibial vein, bilateral
182.451	Acute embolism and thrombosis of right peroneal vein
182.452	Acute embolism and thrombosis of left peroneal vein
182.453	Acute embolism and thrombosis of peroneal vein, bilateral
182.461	Acute embolism and thrombosis of right calf muscular vein
182.462	Acute embolism and thrombosis of left calf muscular vein
182.463	Acute embolism and thrombosis of calf muscular vein, bilateral
182.491	Acute embolism and thrombosis of other specified deep vein of right lower extremity
182.492	Acute embolism and thrombosis of other specified deep vein of left lower extremity
182.493	Acute embolism and thrombosis of other specified deep vein of lower extremity, bilateral
182.511	Chronic embolism and thrombosis of right femoral vein
182.512	Chronic embolism and thrombosis of left femoral vein

Code	Description
182.513	Chronic embolism and thrombosis of femoral vein, bilateral
182.521	Chronic embolism and thrombosis of right iliac vein
182.522	Chronic embolism and thrombosis of left iliac vein
182.523	Chronic embolism and thrombosis of iliac vein, bilateral
182.531	Chronic embolism and thrombosis of right popliteal vein
182.532	Chronic embolism and thrombosis of left popliteal vein
182.533	Chronic embolism and thrombosis of popliteal vein, bilateral
182.541	Chronic embolism and thrombosis of right tibial vein
182.542	Chronic embolism and thrombosis of left tibial vein
182.543	Chronic embolism and thrombosis of tibial vein, bilateral
182.551	Chronic embolism and thrombosis of right peroneal vein
182.552	Chronic embolism and thrombosis of left peroneal vein
182.553	Chronic embolism and thrombosis of peroneal vein, bilateral
182.561	Chronic embolism and thrombosis of right calf muscular vein
182.562	Chronic embolism and thrombosis of left calf muscular vein
182.563	Chronic embolism and thrombosis of calf muscular vein, bilateral
182.591	Chronic embolism and thrombosis of other specified deep vein of right lower extremity
182.592	Chronic embolism and thrombosis of other specified deep vein of left lower extremity
182.593	Chronic embolism and thrombosis of other specified deep vein of lower extremity, bilateral
182.611	Acute embolism and thrombosis of superficial veins of right upper extremity
182.612	Acute embolism and thrombosis of superficial veins of left upper extremity

Code	Description
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
I82.713	Chronic embolism and thrombosis of superficial veins of upper extremity, bilateral
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
I82.723	Chronic embolism and thrombosis of deep veins of upper extremity, bilateral
I82.A11	Acute embolism and thrombosis of right axillary vein
I82.A12	Acute embolism and thrombosis of left axillary vein
I82.A13	Acute embolism and thrombosis of axillary vein, bilateral
I82.A21	Chronic embolism and thrombosis of right axillary vein
I82.A22	Chronic embolism and thrombosis of left axillary vein
I82.A23	Chronic embolism and thrombosis of axillary vein, bilateral
I82.C11	Acute embolism and thrombosis of right internal jugular vein
I82.C12	Acute embolism and thrombosis of left internal jugular vein
I82.C13	Acute embolism and thrombosis of internal jugular vein, bilateral
I82.C21	Chronic embolism and thrombosis of right internal jugular vein
I82.C22	Chronic embolism and thrombosis of left internal jugular vein

I82.C23 Code	Description
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 extremities, bilateral
I82.890	Acute embolism and thrombosis of other specified veins
I82.891	Chronic embolism and thrombosis of other specified veins
I83.011	Varicose veins of right lower extremity with ulcer of thigh
I83.012	Varicose veins of right lower extremity with ulcer of calf
I83.013	Varicose veins of right lower extremity with ulcer of ankle
I83.014	Varicose veins of right lower extremity with ulcer of heel and midfoot
I83.015	Varicose veins of right lower extremity with ulcer other part of foot
I83.018	Varicose veins of right lower extremity with ulcer other part of lower leg
I83.021	Varicose veins of left lower extremity with ulcer of thigh
I83.022	Varicose veins of left lower extremity with ulcer of calf
I83.023	Varicose veins of left lower extremity with ulcer of ankle
I83.024	Varicose veins of left lower extremity with ulcer of heel and midfoot
I83.025	Varicose veins of left lower extremity with ulcer other part of foot
I83.028	Varicose veins of left lower extremity with ulcer other part of lower leg
I83.11	Varicose veins of right lower extremity with inflammation
I83.12	Varicose veins of left lower extremity with inflammation
I83.211	Varicose veins of right lower extremity with both ulcer of thigh and inflammation
I83.212	Varicose veins of right lower extremity with both ulcer of calf and inflammation

Code	Description
I83.213	Varicose veins of right lower extremity with both ulcer of ankle and inflammation
I83.214	Varicose veins of right lower extremity with both ulcer of heel and midfoot and inflammation
I83.215	Varicose veins of right lower extremity with both ulcer other part of foot and inflammation
I83.218	Varicose veins of right lower extremity with both ulcer of other part of lower extremity and inflammation
I83.221	Varicose veins of left lower extremity with both ulcer of thigh and inflammation
I83.222	Varicose veins of left lower extremity with both ulcer of calf and inflammation
I83.223	Varicose veins of left lower extremity with both ulcer of ankle and inflammation
I83.224	Varicose veins of left lower extremity with both ulcer of heel and midfoot and inflammation
I83.225	Varicose veins of left lower extremity with both ulcer other part of foot and inflammation
I83.228	Varicose veins of left lower extremity with both ulcer of other part of lower extremity and 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
I83.891	Varicose veins of right lower extremity with other complications
I83.892	Varicose veins of left lower extremity with other complications
I83.893	Varicose veins of bilateral lower extremities with other complications
I87.001	Postthrombotic syndrome without complications of right lower extremity
I87.002	Postthrombotic syndrome without complications of left lower extremity
I87.003	Postthrombotic syndrome without complications of bilateral lower extremity



Code	Description
I87.011	Postthrombotic syndrome with ulcer of right lower extremity
I87.012	Postthrombotic syndrome with ulcer of left lower extremity
I87.013	Postthrombotic syndrome with ulcer of bilateral lower extremity
I87.021	Postthrombotic syndrome with inflammation of right lower extremity
I87.022	Postthrombotic syndrome with inflammation of left lower extremity
I87.023	Postthrombotic syndrome with inflammation of bilateral lower extremity
I87.031	Postthrombotic syndrome with ulcer and inflammation of right lower extremity
I87.032	Postthrombotic syndrome with ulcer and inflammation of left lower extremity
I87.033	Postthrombotic syndrome with ulcer and inflammation of bilateral lower extremity
I87.091	Postthrombotic syndrome with other complications of right lower extremity
I87.092	Postthrombotic syndrome with other complications of left lower extremity
I87.093	Postthrombotic syndrome with other complications of bilateral lower extremity
I87.1	Compression of vein
I87.2	Venous insufficiency (chronic) (peripheral)
I87.301	Chronic venous hypertension (idiopathic) without complications of right lower extremity
I87.302	Chronic venous hypertension (idiopathic) without complications of left lower extremity
I87.303	Chronic venous hypertension (idiopathic) without complications of bilateral lower extremity
I87.311	Chronic venous hypertension (idiopathic) with ulcer of right lower extremity
I87.312	Chronic venous hypertension (idiopathic) with ulcer of left lower extremity
I87.313	Chronic venous hypertension (idiopathic) with ulcer of bilateral lower extremity
I87.321	Chronic venous hypertension (idiopathic) with inflammation of right lower extremity
I87.322	Chronic venous hypertension (idiopathic) with inflammation of left lower extremity
I87.323	Chronic venous hypertension (idiopathic) with inflammation of bilateral lower extremity

Code	Description
<del>I87.322</del>	<del>Chronic venous hypertension (idiopathic) with inflammation of left lower extremity</del>
<del>I87.323</del>	<del>Chronic venous hypertension (idiopathic) with inflammation of bilateral lower extremity</del>
I87.331	Chronic venous hypertension (idiopathic) with ulcer and inflammation of right lower extremity
I87.332	Chronic venous hypertension (idiopathic) with ulcer and inflammation of left lower extremity
I87.333	Chronic venous hypertension (idiopathic) with ulcer and inflammation of bilateral lower extremity
I87.391	Chronic venous hypertension (idiopathic) with other complications of right lower extremity
I87.392	Chronic venous hypertension (idiopathic) with other complications of left lower extremity
I87.393	Chronic venous hypertension (idiopathic) with other complications of bilateral lower extremity
I96	Gangrene, not elsewhere classified
J80	Acute respiratory distress syndrome
J96.00	Acute respiratory failure, unspecified whether with hypoxia or hypercapnia
J96.01	Acute respiratory failure with hypoxia
J96.02	Acute respiratory failure with hypercapnia
J96.90	Respiratory failure, unspecified, unspecified whether with hypoxia or hypercapnia
L97.111	Non-pressure chronic ulcer of right thigh limited to breakdown of skin
L97.112	Non-pressure chronic ulcer of right thigh with fat layer exposed
L97.113	Non-pressure chronic ulcer of right thigh with necrosis of muscle
L97.114	Non-pressure chronic ulcer of right thigh with necrosis of bone
L97.115	Non-pressure chronic ulcer of right thigh with muscle involvement without evidence of necrosis
L97.116	Non-pressure chronic ulcer of right thigh with bone involvement without evidence of necrosis
L97.118	Non-pressure chronic ulcer of right thigh with other specified severity
L97.119	Non-pressure chronic ulcer of right thigh with unspecified severity

L97.121 Code	Non-pressure chronic ulcer of left thigh limited to breakdown of skin Description
L97.122	Non-pressure chronic ulcer of left thigh with fat layer exposed
L97.123	Non-pressure chronic ulcer of left thigh with necrosis of muscle
L97.124	Non-pressure chronic ulcer of left thigh with necrosis of bone
L97.125	Non-pressure chronic ulcer of left thigh with muscle involvement without evidence of necrosis
L97.126	Non-pressure chronic ulcer of left thigh with bone involvement without evidence of necrosis
L97.128	Non-pressure chronic ulcer of left thigh with other specified severity
L97.129	Non-pressure chronic ulcer of left thigh with unspecified severity
L97.211	Non-pressure chronic ulcer of right calf limited to breakdown of skin
L97.212	Non-pressure chronic ulcer of right calf with fat layer exposed
L97.213	Non-pressure chronic ulcer of right calf with necrosis of muscle
L97.214	Non-pressure chronic ulcer of right calf with necrosis of bone
L97.215	Non-pressure chronic ulcer of right calf with muscle involvement without evidence of necrosis
L97.216	Non-pressure chronic ulcer of right calf with bone involvement without evidence of necrosis
L97.218	Non-pressure chronic ulcer of right calf with other specified severity
L97.219	Non-pressure chronic ulcer of right calf with unspecified severity
L97.221	Non-pressure chronic ulcer of left calf limited to breakdown of skin
L97.222	Non-pressure chronic ulcer of left calf with fat layer exposed
L97.223	Non-pressure chronic ulcer of left calf with necrosis of muscle
L97.224	Non-pressure chronic ulcer of left calf with necrosis of bone
L97.225	Non-pressure chronic ulcer of left calf with muscle involvement without evidence of necrosis

Code	Description
L97.226	Non-pressure chronic ulcer of left calf with bone involvement without evidence of necrosis
L97.228	Non-pressure chronic ulcer of left calf with other specified severity
L97.229	Non-pressure chronic ulcer of left calf with unspecified severity
L97.311	Non-pressure chronic ulcer of right ankle limited to breakdown of skin
L97.312	Non-pressure chronic ulcer of right ankle with fat layer exposed
L97.313	Non-pressure chronic ulcer of right ankle with necrosis of muscle
L97.314	Non-pressure chronic ulcer of right ankle with necrosis of bone
L97.315	Non-pressure chronic ulcer of right ankle with muscle involvement without evidence of necrosis
L97.316	Non-pressure chronic ulcer of right ankle with bone involvement without evidence of necrosis
L97.318	Non-pressure chronic ulcer of right ankle with other specified severity
L97.319	Non-pressure chronic ulcer of right ankle with unspecified severity
L97.321	Non-pressure chronic ulcer of left ankle limited to breakdown of skin
L97.322	Non-pressure chronic ulcer of left ankle with fat layer exposed
L97.323	Non-pressure chronic ulcer of left ankle with necrosis of muscle
L97.324	Non-pressure chronic ulcer of left ankle with necrosis of bone
L97.325	Non-pressure chronic ulcer of left ankle with muscle involvement without evidence of necrosis
L97.326	Non-pressure chronic ulcer of left ankle with bone involvement without evidence of necrosis
L97.328	Non-pressure chronic ulcer of left ankle with other specified severity
L97.329	Non-pressure chronic ulcer of left ankle with unspecified severity
L97.411	Non-pressure chronic ulcer of right heel and midfoot limited to breakdown of skin
L97.412	Non-pressure chronic ulcer of right heel and midfoot with fat layer exposed
L97.413	Non-pressure chronic ulcer of right heel and midfoot with necrosis of muscle

Code	Description
L97.414	Non-pressure chronic ulcer of right heel and midfoot with necrosis of bone
L97.415	Non-pressure chronic ulcer of right heel and midfoot with muscle involvement without evidence of necrosis
L97.416	Non-pressure chronic ulcer of right heel and midfoot with bone involvement without evidence of necrosis
L97.418	Non-pressure chronic ulcer of right heel and midfoot with other specified severity
L97.419	Non-pressure chronic ulcer of right heel and midfoot with unspecified severity
L97.421	Non-pressure chronic ulcer of left heel and midfoot limited to breakdown of skin
L97.422	Non-pressure chronic ulcer of left heel and midfoot with fat layer exposed
L97.423	Non-pressure chronic ulcer of left heel and midfoot with necrosis of muscle
L97.424	Non-pressure chronic ulcer of left heel and midfoot with necrosis of bone
L97.425	Non-pressure chronic ulcer of left heel and midfoot with muscle involvement without evidence of necrosis
L97.426	Non-pressure chronic ulcer of left heel and midfoot with bone involvement without evidence of necrosis
L97.428	Non-pressure chronic ulcer of left heel and midfoot with other specified severity
L97.429	Non-pressure chronic ulcer of left heel and midfoot with unspecified severity
L97.511	Non-pressure chronic ulcer of other part of right foot limited to breakdown of skin
L97.512	Non-pressure chronic ulcer of other part of right foot with fat layer exposed
L97.513	Non-pressure chronic ulcer of other part of right foot with necrosis of muscle
L97.514	Non-pressure chronic ulcer of other part of right foot with necrosis of bone
L97.515	Non-pressure chronic ulcer of other part of right foot with muscle involvement without evidence of necrosis
L97.516	Non-pressure chronic ulcer of other part of right foot with bone involvement without evidence of necrosis

Code	Description
L97.518	Non-pressure chronic ulcer of other part of right foot with other specified severity
L97.519	Non-pressure chronic ulcer of other part of right foot with unspecified severity
L97.521	Non-pressure chronic ulcer of other part of left foot limited to breakdown of skin
L97.522	Non-pressure chronic ulcer of other part of left foot with fat layer exposed
L97.523	Non-pressure chronic ulcer of other part of left foot with necrosis of muscle
L97.524	Non-pressure chronic ulcer of other part of left foot with necrosis of bone
L97.525	Non-pressure chronic ulcer of other part of left foot with muscle involvement without evidence of necrosis
L97.526	Non-pressure chronic ulcer of other part of left foot with bone involvement without evidence of necrosis
L97.528	Non-pressure chronic ulcer of other part of left foot with other specified severity
L97.529	Non-pressure chronic ulcer of other part of left foot with unspecified severity
L97.811	Non-pressure chronic ulcer of other part of right lower leg limited to breakdown of skin
L97.812	Non-pressure chronic ulcer of other part of right lower leg with fat layer exposed
L97.813	Non-pressure chronic ulcer of other part of right lower leg with necrosis of muscle
L97.814	Non-pressure chronic ulcer of other part of right lower leg with necrosis of bone
L97.815	Non-pressure chronic ulcer of other part of right lower leg with muscle involvement without evidence of necrosis
L97.816	Non-pressure chronic ulcer of other part of right lower leg with bone involvement without evidence of necrosis
L97.818	Non-pressure chronic ulcer of other part of right lower leg with other specified severity
L97.819	Non-pressure chronic ulcer of other part of right lower leg with unspecified severity

L97.821 Code	Non-pressure chronic ulcer of other part of left lower leg limited to breakdown of skin Description
L97.822	Non-pressure chronic ulcer of other part of left lower leg with fat layer exposed
L97.823	Non-pressure chronic ulcer of other part of left lower leg with necrosis of muscle
L97.824	Non-pressure chronic ulcer of other part of left lower leg with necrosis of bone
L97.825	Non-pressure chronic ulcer of other part of left lower leg with muscle involvement without evidence of necrosis
L97.826	Non-pressure chronic ulcer of other part of left lower leg with bone involvement without evidence of necrosis
L97.828	Non-pressure chronic ulcer of other part of left lower leg with other specified severity
L97.829	Non-pressure chronic ulcer of other part of left lower leg with unspecified severity
M71.21	Synovial cyst of popliteal space [Baker], right knee
M71.22	Synovial cyst of popliteal space [Baker], left knee
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
M79.631	Pain in right forearm
M79.632	Pain in left forearm
M79.641	Pain in right hand
M79.642	Pain in left hand
M79.644	Pain in right finger(s)

M79.645 Code	Pain in left finger(s) Description
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
M79.674	Pain in right toe(s)
M79.675	Pain in left toe(s)
O22.21	Superficial thrombophlebitis in pregnancy, first trimester
O22.22	Superficial thrombophlebitis in pregnancy, second trimester
O22.23	Superficial thrombophlebitis in pregnancy, third trimester
O22.31	Deep phlebothrombosis in pregnancy, first trimester
O22.32	Deep phlebothrombosis in pregnancy, second trimester
O22.33	Deep phlebothrombosis in pregnancy, third trimester
O87.0	Superficial thrombophlebitis in the puerperium
O87.1	Deep phlebothrombosis in the puerperium
O88.211	Thromboembolism in pregnancy, first trimester
O88.212	Thromboembolism in pregnancy, second trimester
O88.213	Thromboembolism in pregnancy, third trimester
O88.22	Thromboembolism in childbirth
O88.23	Thromboembolism in the puerperium



Code	Description
Q27.31	Arteriovenous malformation of vessel of upper limb
Q27.32	Arteriovenous malformation of vessel of lower limb
Q27.8	Other specified congenital malformations of peripheral vascular system
R04.2	Hemoptysis
R06.00	Dyspnea, unspecified
R06.02	Shortness of breath
R06.09	Other forms of dyspnea
R06.82	Tachypnea, not elsewhere classified
R07.1	Chest pain on breathing
R07.81	Pleurodynia
R07.82	Intercostal pain
R07.89	Other chest pain
R07.9	Chest pain, unspecified
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
R60.1	Generalized edema

Code	Description
R60.9	Edema, unspecified
T80.0XXA	Air embolism following infusion, transfusion and therapeutic injection, initial encounter
T80.1XXA	Vascular complications following infusion, transfusion and therapeutic injection, initial encounter
T81.72XA	Complication of vein following a procedure, not elsewhere classified, initial encounter
Z01.810*	Encounter for preprocedural cardiovascular examination
Z01.818*	Encounter for other preprocedural examination
Z09*	Encounter for follow-up examination after completed treatment for conditions other than malignant neoplasm

**Group 1 Medical Necessity ICD-10-CM Codes Asterisk Explanation**

\*NOTE: Use ICD-10-CM code I74.9 to report paradoxical embolism.

\*NOTE: ICD-10-CM code Z01.810 is only covered for CPT code 93971.

\*NOTE: ICD-10-CM code Z01.818 is covered for either CPT/HCPCS codes 93971, 93985 or 93986 only (Refer to Group 2 codes for CPT codes 93985 and 93986).

\*NOTE: Use ICD-10-CM code Z09 only to describe a limited venous duplex (CPT code 93971) performed within 72 hours of a saphenous vein ablation procedure (CPT codes 36473, 36474, 36475, 36476, 36478, 36479, 36482, or 36483).

**Group 2 (4 Codes)**

**Group 2 Paragraph**

It is the provider's responsibility to select codes carried out to the highest level of specificity and selected from the ICD-10-CM code book appropriate to the year in which the service is rendered for the claim(s) submitted.

The following ICD-10-CM codes support medical necessity and provide coverage for CPT codes: **93985 and 93986**.

**Group 2 Codes**

Code	Description
N18.4	Chronic kidney disease, stage 4 (severe)
N18.5	Chronic kidney disease, stage 5
N18.6	End stage renal disease
Z01.818*	Encounter for other preprocedural examination

**Group 2 Medical Necessity ICD-10-CM Codes Asterisk Explanation**

\*NOTE: CPT codes 93985 and 93986 reported with ICD-10-CM code Z01.818 requires a secondary diagnosis code of N18.4, N18.5, or N18.6.

\*NOTE: ICD-10-CM code Z01.818 is covered for either CPT codes 93971, 93985 or 93986 only (Refer to Group 1 codes for CPT code 93971).

---

## ICD-10-CM Codes that DO NOT Support Medical Necessity

### Group 1 (1 Code)

#### Group 1 Paragraph

All ICD-10 codes not listed under the "ICD-10 Codes that Support Medical Necessity" section of this article.

#### Group 1 Codes

Code	Description
XX000	Not Applicable

---

## Additional ICD-10 Information

N/A

---

## 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 article does not apply to that Bill Type. Complete absence of all Bill Types indicates that coverage is not influenced by Bill Type and the article should be assumed to apply equally to all claims.

Code	Description
011x	Hospital Inpatient (Including Medicare Part A)
012x	Hospital Inpatient (Medicare Part B only)
013x	Hospital Outpatient
018x	Hospital - Swing Beds
021x	Skilled Nursing - Inpatient (Including Medicare Part A)
022x	Skilled Nursing - Inpatient (Medicare Part B only)
023x	Skilled Nursing - Outpatient

Code	Description
028x	Skilled Nursing - Swing Beds
083x	Ambulatory Surgery Center
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 article, 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 article should be assumed to apply equally to all Revenue Codes.

**Note:** The contractor has identified the Bill Type and Revenue Codes applicable for use with the CPT/HCPCS codes included in this article. Providers are reminded that not all CPT/HCPCS codes listed can be billed with all Bill Type and/or Revenue Codes listed. CPT/HCPCS codes are required to be billed with specific Bill Type and Revenue Codes. Providers are encouraged to refer to the CMS Internet-Only Manual (IOM) Pub. 100-04, *Medicare Claims Processing Manual*, for further guidance.

Code	Description
0921	Other Diagnostic Services - Peripheral Vascular Lab

## Other Coding Information

N/A

## Revision History Information

Revision History Date	Revision History Number	Revision History Explanation
03/18/2021	R10	<p>Article revised and published on 5/13/2021 effective for dates of service on and after 3/18/2021 in response to an inquiry.</p> <p>The following CPT codes have been added to the statement in the Article regarding the use of ICD-10-CM code Z09: <b>36473, 36474, 36482, and 36483</b>. These CPT codes have been added to the asterisk note for "Group 1 for Medical Necessity" under ICD-10-CM codes Asterisk Explanation.</p>


Revision History Date	Revision History Number	Revision History Explanation
01/12/2021	R9	Article revised and published on 02/25/2021 effective for dates of service on and after 01/12/2021 in response to an inquiry to add ICD-10 codes I87.301, I87.302 and I87.303 to the 'Group 1 Codes' in the 'ICD-10 Codes that Support Medical Necessity' section.
08/13/2020	R8	Article revised and published on 08/13/2020 effective for dates of service on and after 08/13/2020 as a non-discretionary update to correct code descriptors for CPT codes 93985 and 93986 in 'Coding Guidance' section. Minor formatting changes have also been made through the coding section.
01/01/2020	R7	Article revised and published on 01/16/2020 effective for dates of service on and after 01/01/2020 to reflect the annual CPT/HCPCS code updates. The following CPT/HCPCS code(s) have been added to Group 2 Codes, ICD-10 Group 2 paragraphs and Groups 1 and 2 asterisk explanation: 93985 and 93986. The following CPT/HCPCS code(s) have been deleted from Group 2 codes, ICD-10 Group 2 paragraphs and Groups 1 and 2 asterisk explanation: G0365. Code G0365 was deleted from the Coding Guidelines and 93985 and 93986 were added.
10/01/2019	R6	Article revised and published on 10/17/2019 for dates of service on and after 10/01/2019 to reflect the annual ICD-10 code updates. The following ICD-10 codes have been added to the Group 1 codes: I26.93, I26.94, I80.241, I80.242, I80.243, I80.251, I80.252, I80.253, I82.451, I82.452, I82.453, I82.461, I82.462, I82.463, I82.551, I82.552, I82.553, I82.561, I82.562, I82.563. Minor formatting changes have been made in the Article text. Asterisks have been placed within the ICD-10 code tables with the Asterisk explanation notes added to the bottom of the tables. Due to system changes, the order of the Coding Section has been revised and new sections for CPT/HCPCS Modifiers and Other Coding Information have been added.
03/21/2019	R5	Article revised and published on 03/21/2019. All codes from L35451, Non-Invasive Peripheral Venous Studies, have been placed in this article per CMS Change Request 10901. Reference updated to National Correct Coding Initiative (NCCI).
01/01/2017	R4	Article revised and published on 01/12/2017 effective for dates of service on and after 01/01/2017 to reflect the annual CPT/HCPCS code updates. <b>The following CPT/HCPCS code(s) have been deleted and therefore removed from the Article: 93965.</b> Added notation that it would be inappropriate to report a NOC code for the deleted code 93965.
12/01/2016	R3	Article revised and published on 12/01/2016 to update the coding guidelines section consistent with LCD L35451 Non-Invasive Peripheral Venous Studies and to add the hyperlink to LCD L35451 to the Related Local Coverage Document(s) section.

Revision History Date	Revision History Number	Revision History Explanation
10/01/2015	R2	Article revised on 07/22/2014 to reflect the use of short descriptors with CPT/HCPCS codes.  Revision History #1 revised on 07/22/2014 to correct the following statement: "Article revised for the states of Pennsylvania, Maryland, Delaware, District of Columbia, and New Jersey to change the Reference to related LCDs from L34880 to L34714 and L34854 to L34711." The correct LCD numbers are L34880 to L35451 and L34854 to L35397.
10/01/2015	R1	10-01-2014 - New article for those providers in the states of Arkansas, Louisiana, Mississippi, Colorado, Texas, Oklahoma, and New Mexico. Article revised for the states of Pennsylvania, Maryland, Delaware, District of Columbia, and New Jersey to change the Reference to related LCDs from L34880 to L34714 and L34854 to L34711. Article published on 07-24-2014.

## Associated Documents

### Related Local Coverage Documents

LCDs

[L35451 - Non-Invasive Peripheral Venous Studies](#) 

### Related National Coverage Documents

N/A

### Statutory Requirements URLs

N/A

### Rules and Regulations URLs

N/A


### CMS Manual Explanations URLs


N/A

### Other URLs

N/A

### Public Versions

Updated On	Effective Dates	Status	
05/07/2021	03/18/2021 - N/A	Currently in Effect	You are here

Some older versions have been archived. Please visit the [MCD Archive Site](#)  to retrieve them.

## Keywords

N/A