Evolent Clinical Guideline 7290 for Treatment of Varicose Veins

Guideline Number: Evolent _CG_7290	**Applicable Codes**	
"Evolent" refers to Evolent Health LLC and Evolent Specialty Services, Inc. 		
Original Date: September 2011	**Last Revised Date:** March 2026	**Implementation Date:** March 2026

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STATEMENT

General Information

- *It is an expectation that all patients receive care/services from a licensed clinician. All appropriate supporting documentation, including recent pertinent office visit notes, laboratory data, and results of any special testing must be provided. If applicable: All prior relevant imaging results and the reason that alternative imaging cannot be performed must be included in the documentation submitted.*
- *Where a specific clinical indication is not directly addressed in this guideline, medical necessity determination will be made based on widely accepted standard of care criteria. These criteria are supported by evidence-based or peer-reviewed sources such as medical literature, societal guidelines and state/national recommendations.*
- *The guideline criteria in the following sections were developed utilizing evidence-based and peer-reviewed resources from medical publications and societal organization guidelines as well as from widely accepted standard of care, best practice recommendations.*

Clinical Reasoning

All criteria are substantiated by the latest evidence-based medical literature. To enhance transparency and reference, Appropriate Use (AUC) scores, when available, are diligently listed alongside the criteria.

This guideline first defaults to AUC scores established by published, evidence-based guidance endorsed by professional medical organizations. In the absence of those scores, we adhere to a standardized practice of assigning an AUC score of 6. This score is determined by considering variables that ensure the delivery of patient-centered care in line with current guidelines, with a focus on achieving benefits that outweigh associated risks. This approach aims to maintain a robust foundation for decision-making and underscores our commitment to upholding the highest standards of care. [1–5]

GENERAL

- Varicose veins can be treated by different methods depending on the anatomy of the vein, and surgeon or patient preference
    - Anatomical features that can determine treatment include:
        - Spider veins
        - Reticular veins
        - Individual varicosities or clusters of varicose veins
        - Perforator veins
        - Truncal veins which include the greater saphenous, small saphenous and its thigh extension, anterior saphenous, and posterior accessory saphenous.

- Tributary veins
- Abnormalities of the deep veins do not constitute varicose veins, but may contribute to them

- Treatment methods include:
  - Conservative measures including medical grade compression (e.g. > 20 mmHg), ambulation, limb elevation, venoactive compounds, and avoiding prolonged sitting and standing
  - High ligation and stripping
  - Stab Avulsion Phlebectomy (SAP) also known as mini- or micro-phlebectomy
  - Cluster excision
  - Transilluminated powered phlebectomy
  - Sclerotherapy of varicose veins with polidocanol or sodium tetradecyl sulfate
  - Thermal ablation of truncal veins using laser or radiofrequency
  - Nonthermal ablation of truncal veins including mechanico-chemical ablation, medical adhesive, and foam sclerotherapy (physician compounded and non-compounded foam)

INDICATIONS [6–9]

Plan of Treatment

- Prior authorization can be requested for both legs, but all treatments must be completed within 90 days from the first approval.
- A treatment plan, assuming indications listed below, can include a maximum of three sclerotherapy and three phlebectomy sessions per leg, as well as a plan to treat two truncal veins, and two perforator veins. Subsequent vein treatments will only be considered after this plan has been completed. A complete, new authorization will be required also detailing which veins were treated, by what procedure, and why further treatments are necessary. [6–9]
- Unless treatment is for bleeding, ulceration or wounds, a 6-week course of conservative measures including use of medical grade stockings (e.g. > 20 mmHg compression) must have been completed prior to the authorization request. If contraindicated, the reason must be documented
- The treatment plan must be based on a venous duplex ultrasound:
  - Performed in an accredited vascular laboratory OR
  - Performed by a certified vascular technologist with RVT (Registered Vascular Technologist), RVS (Registered Vascular Specialist), or RPhs (Registered Phlebology Sonographer) certification OR
  - Interpreted or performed by a physician who is a Registered Physician in Vascular

Interpretation (RPVI), or a board-certified (BC) vascular surgeon, (BC) cardiologist or (BC) radiologist or has the same credentials as those for a certified vascular technologist

- The Duplex Scan must be performed standing or steep reverse Trendelenburg position, AND
  - It must demonstrate ≥ 500 msec reflux by Valsalva or *distal* (not proximal) compression and release in at least two separate areas/vein
- The ***complete detailed*** 2020 CEAP classification (see **Definitions**) must be provided
- The Venous Clinical Severity Score (VCSS) (see **Definitions**) components and total score must be provided. This can be simplified with just the component headings and associated scores e.g. Pain/Discomfort 1, Varicose Vein 2, Venous edema 0, Total Score 3
- If multiple veins are to be treated, the provider must identify which vein/s will be treated (including the side) and with which modality. If that vein was previously treated list the date/s and procedure name/s.
- When truncal treatment is the primary treatment and sclerotherapy or SAP is also being considered for that extremity, SAP and/or sclerotherapy should be performed at the same time unless:
  - There are circumferential limb varicosities requiring changing the patient's position from supine to decubitus
  - There is a need for general anesthesia or large amounts of local or tumescent anesthetic
- Ablation of the great saphenous vein involves treating it from the ankle to the groin. It is expected that this will be performed in one setting
- Ablation of two continuous saphenous segments accessed by a single or multiple access points is still considered a single ablation
- If both the anterior saphenous and great saphenous require treatment both should be treated concurrently unless a reason is specified

Truncal Veins

Truncal veins include the Great, Small, Anterior, and Posterior Accessory Saphenous Veins. Indications for Truncal vein ablation include BOTH of the following:

- CEAP classification ≥ C2s (see **Definitions**) with clinical symptoms or findings that limit the patient's quality of life or ability to perform work
- Axial reflux ≥ 500 ms (see **Definitions**) which must be uninterrupted reflux from the junction of the truncal vein and the appropriate deep vein and extending distally at least to the knee for the great, anterior or posterior accessory, or ankle for the small saphenous vein. Duplex imaging demonstration of axial reflux will require at least two areas of reflux in the vein, not including close to the junction with its associated deep vein. Ablation can be used for:

- The great saphenous vein irrespective of any size diameter
- An anterior saphenous vein in the thigh of any size diameter
- The small saphenous vein ≥ 3 mm
- A posterior accessory saphenous vein in the thigh of any size diameter, provided all other axial reflux is absent, or successfully treated > 3 months previously, and the patient has continued CEAP ≥ C2s

Perforator Veins

- Perforator vein with reflux ≥ 500 milliseconds (ms) and diameter ≥ 3.5 mm **AND ANY** of the following:
  - It is located in close proximity to an open venous ulcer and corresponding truncal reflux has been corrected or will be treated concurrently
  - It is located beneath a healed venous ulcer and corresponding truncal reflux has been corrected
- It lies directly beneath a symptomatic vein or cluster of veins with persistent or recurrent symptoms > 3 months after complete ablation of refluxing superficial truncal veins

Varicose and Tributary Veins

- Varicose and Tributary veins (see **Definitions** and **Limitations**) can be treated by sclerotherapy or stab avulsion phlebectomy provided the CEAP classification is ≥ C2s (see **Definitions**) with clinical symptoms or findings that limit the patient's quality of life or ability to perform work and which are related to that vein or cluster of veins, and with reflux ≥ 500 ms with size ≥ 3 mm OR
- Superficial thrombophlebitis (past or present) OR
- Bleeding (any size including spider or telangiectasia) or in the elderly where the vein is judged to be a substantial risk for hemorrhage with minimal trauma

Spider and Reticular Veins

- Treatment is considered cosmetic and cannot be authorized unless associated with bleeding (current or recent) or in the elderly where the vein is judged to be a substantial risk for hemorrhage with minimal trauma

LIMITATIONS (6–9)

- Persistent, or recurrent, venous reflux without other indications for treatment
- Tributary veins cannot be treated by ANY ablation technique including non-physician compounded foam sclerotherapy (e.g. Varithena®)
- Bilateral leg edema (CEAP C3) unless other reasons for edema have been discussed and excluded

- CEAP C3 with reflux limited to the below knee great saphenous or tributary veins
- Any ablation procedure on an anterior saphenous or posterior accessory saphenous vein below the knee
- Isolated saphenofemoral junctional incompetence
- Isolated reflux in great saphenous vein segments, in the presence of competent segments proximally and distally
- Previous administration of sclerotherapy agent in the same vein less than 6 weeks prior
- The following are contradictions to intervention
    - Allergy to adhesives (glues) or sclerotherapy agents
    - Pregnancy or within 3 months after delivery
    - Acute febrile illness
    - Local or general infection
    - Severe distal arterial occlusive disease (ankle brachial index < 0.4 arterial ulcer or gangrene)
    - Obliteration of the deep venous system
    - Acute deep venous phlebitis
    - Prolonged immobility
    - Ultrasound guided foam sclerotherapy in a patient with symptomatic right to left shunt
    - Imminent requirement of the great or small saphenous vein for an arterial or coronary artery bypass e.g. prior coronary artery stents, current or persistent angina, significant claudication, rest pain or chronic limb threatening ischemia

CODING AND STANDARDS

Codes

36465, 36466, 36470, 36471, 36473, 36474, 36475, 36476, 36478, 36479, 36482, 36483, 37700, 37718, 37722, 37735, 37760, 37761, 37765, 37766, 37780, 37785

Applicable Lines of Business

☒	CHIP (Children's Health Insurance Program)
☒	Commercial
☒	Exchange/Marketplace

☒	Medicaid
☒	Medicare Advantage

BACKGROUND

Definitions

- Ablation of a truncal vein implies that a procedure has effectively closed the vein along its length. This can be achieved by damaging the vein wall by heat transfer to the wall or blood (radiofrequency or laser), or chemical applications to the lumen and vein wall, mechanical irritation, or by glueing the walls together
- An accredited vascular laboratory is accredited by the Intersocietal Accreditation Commission (IAC), or The American College of Radiology, or for hospitals The Joint Commission
- A certified vascular technologist may be any of the following: A physician with RPVI, a Registered Vascular technologist (RVT), Registered Cardiovascular Technologist (RCVT), Registered Vascular Specialist (RVS), American Registry of Radiologic Technologists (ARRT) credentials in vascular technology, RPhs (Registered Phlebology Sonographer)
- Axial reflux: is defined as uninterrupted reflux from the junction of a truncal vein and the appropriate deep vein and extending distally at least to the knee for the great, anterior or posterior accessory, or ankle for the small saphenous vein. The small saphenous can extend above the knee. Axial reflux requires documentation of at least two areas of reflux not including close to the junction with a deep vein
- Conservative measures for treating varicose veins: include medical grade compression (> 20 mmHg), ambulation, limb elevation, avoiding prolonged sitting and standing, and can include venotonic medications
- Perforating veins connect the deep and superficial system of veins
- Tributary veins are extra-fascial extensions of truncal veins. They can be straight or tortuous. Extensions of the anterior and posterior accessory saphenous veins below the knee are tributary veins and no longer considered truncal
- Truncal veins are the great, small, anterior saphenous, and posterior accessory saphenous veins. Note that the anterior saphenous and posterior accessory saphenous veins do not extend beyond the knee
- Varicose veins: are abnormally dilated, tortuous veins virtually always in the lower extremities, lower abdominal wall or pelvic region. They can be asymptomatic, cause cosmetic embarrassment, or may be symptomatic with a sense of discomfort, pressure, itching and heaviness
- Venous reflux: is retrograde flow due to valvular incompetence. It cannot be produced by proximal compression maneuvers

Venous Clinical Severity Score (VCSS) [10]

Pain/Discomfort	None: 0	Mild: 1	Moderate: 2	Severe: 3
e.g., aching, fatigue, soreness, heaviness, burning		Occasional pain that does not restrict daily activities	Daily pain may interfere with regular daily activities (does not prevent)	Daily pain limiting most regular daily activities

Varicose Veins	None: 0	Mild: 1	Moderate: 2	Severe: 3
≥ 3 mm (diameter) in standing position		Few: scattered (varicosities confined to branch veins or clusters) Includes corona phlebectatica (ankle flare)	Multiple varicosities confined to the calf or the thigh	Multiple varicosities involves calf and thigh

Venous Edema	None: 0	Mild: 1	Moderate: 2	Severe: 3
Presumes venous origin		Edema limited to the foot and ankle	Edema extends above the ankle but below the knee	Edema extends to the knee and above

Skin Pigmentation	None: 0	Mild: 1	Moderate: 2	Severe: 3
Presumes venous origin Does not include focal pigmentation over varicose veins or due to other chronic diseases (e.g., vasculitis purpura)		Pigmentation is limited to perimalleolar area	Diffuse pigmentation that involves lower third of the calf	Wider distribution pigmentation above the lower third of the calf

Inflammation	None: 0	Mild: 1	Moderate: 2	Severe: 3
More than recent pigmentation (i.e., erythema, cellulitis, venous eczema, dermatitis)		Inflammation limited to perimalleolar area	Diffuse inflammation over lower third of calf	Wider distribution inflammation above lower third of calf

Induration	None: 0	Mild: 1	Moderate: 2	Severe: 3
Presumes venous origin of secondary skin & subcutaneous changes (e.g., chronic edema with fibrosis, lypodermitis); includes white atrophy & Lipodermatosclerosis		Limited to perimalleolar area	Diffuse over lower third of calf	Wider distribution above lower third of calf

Active Ulcer Number	0	1	2	≥ 3
Active Ulcer Duration (longest active)	N/A	< 3 months	> 3 months but < 1 y	Not healed for > 1 y
Active Ulcer Size (largest active)	N/A	< 2 cm (diameter)	2-6 cm (diameter)	> 6 cm (diameter)

Compression Therapy Use	0	1	2	3
	Not Used	Intermittent stocking use	Stocking use most days	Stocking use full compliance

2020 CEAP Classification (Clinical Class, Etiology, Anatomy, Pathology) (11)

CEAP categories; Clinical (C), Etiological (E), Anatomical (A), and Pathophysiological (P)

Clinical (C) Classifications (C Classes present in Limb)

- C_0 – No visible or palpable signs of venous disease
- C_1 – Telangiectasias or reticular veins (< 3 mm)
- C_2 – Simple varicose veins (≥ 3 mm diameter)

- C_{2r} – Recurrent varicose veins
- C_3 – Ankle edema of venous origin (not foot edema)
- C_4 – Changes in skin and subcutaneous tissue secondary to CVD
  - C_{4a} – Pigmentation or eczema
  - C_{4b} – Lipodermatosclerosis or atrophie blanche
  - C_{4c} – Corona phlebectatica
- C_5 – Healed venous ulcer
- C_6 – Open venous ulcer
  - C_{6r} – Recurrent active venous ulcer

Subscripts of C Classes Indicating presence or absence of symptoms

- **S - Symptomatic**
  - Ache
  - Pain
  - Tightness
  - Skin irritation
  - Heaviness
  - Muscle cramps
  - Other complaints attributable to venous dysfunction
- **A – Asymptomatic**

Etiologic (E) Classification

- E_c – Congenital
- E_p – Primary
- E_s – Secondary
  - E_{si} – Secondary – intravenous
  - E_{se} – Secondary – extravenous
- E_n – No cause identified

Anatomic (A) Classification

- A_s – Superficial veins
  - Telangiectasia
  - Reticular Veins
  - Great saphenous vein above knee
  - Great saphenous vein below knee

- Small saphenous vein
- Anterior accessory saphenous vein
- Nonsaphenous vein

- A_p – Perforator veins
  - Thigh perforator vein
  - Calf perforator vein
- A_d – Deep veins
  - Inferior vena cava
  - Common iliac vein
  - Internal iliac vein
  - External iliac vein
  - Pelvic veins
  - Common femoral vein
  - Deep femoral vein
  - Femoral vein
  - Popliteal vein
  - Crural (tibial) vein
  - Peroneal vein
  - Anterior tibial vein
  - Posterior tibial vein
  - Muscular veins
  - Gastrocnemius vein
  - Soleal vein
- A_n – No venous anatomic location identified

Pathophysiologic (P) Classification

- P_r – Reflux
- P_o – Obstruction
- $P_{r,o}$ – Reflux and obstruction
- P_n – No venous pathophysiology

AUC Score

A reasonable diagnostic or therapeutic procedure can be defined as that for which the expected clinical benefits outweigh the associated risks, enhancing patient care and health outcomes in a cost-effective manner. [(2)]

- Appropriate Care- Median Score 7-9
- May be Appropriate Care- Median Score 4-6
- Rarely Appropriate Care- Median Score 1-3

Acronyms/Abbreviations

ASV: Anterior saphenous vein (now known as the anterior saphenous vein)

AUC: Appropriate Use Criteria (Scores)

BC: Board Certification

CEAP: Clinical (C), Etiology (e), Anatomical (A), and Pathophysiological (P)

PCF: Physician compounded foam

SAP: Stab avulsion phlebectomy

r-VCSS: Revised Venous Clinical Severity Score

SUMMARY OF EVIDENCE

European Society for Vascular Surgery (ESVS) 2022 Clinical Practice Guidelines on the Management of Chronic Venous Disease of the Lower Limbs [6]

Study Design: This document is a clinical practice guideline by the European Society for Vascular Surgery (ESVS) on the management of chronic venous disease (CVD) of the lower limbs. It includes recommendations based on systematic literature reviews and expert consensus.

Target Population: Patients with chronic venous disease of the lower limbs, including those with superficial, perforating, and deep vein pathologies.

Key Factors:

Epidemiology: The document provides prevalence data for different CEAP classes of CVD and discusses risk factors such as female gender, age, obesity, prolonged standing, positive family history, and parity.

Anatomy: Detailed descriptions of the superficial, perforating, and deep veins of the lower limbs.

Pathophysiology: Discusses the inflammatory phenomena leading to venous wall and valve changes, venous hypertension, and subsequent skin changes.

Clinical Presentation: Symptoms include heaviness, tired legs, itching, nocturnal cramps, burning pain, and venous claudication.

Investigations: Recommendations for duplex ultrasound, abdominal ultrasound, cross-sectional imaging, and intravascular ultrasound.

Management: Conservative management options such as physical methods, compression therapy, and pharmacological treatment. Interventional treatments for superficial venous incompetence, including thermal and non-thermal ablation techniques.

The 2022 Society for Vascular Surgery, American Venous Forum, and American Vein and Lymphatic Society clinical practice guidelines for the management of varicose veins of the lower extremities. Part 1 [7]

Study Design: This document is part I of the clinical practice guidelines by the Society for Vascular Surgery, American Venous Forum, and American Vein and Lymphatic Society for the management of varicose veins of the lower extremities. It includes evidence-based recommendations based on systematic reviews and meta-analyses.

Target Population: Patients with varicose veins of the lower extremities, including those with CEAP class 2 varicose veins.

Key Factors:

Duplex Ultrasound: Recommendations for using duplex ultrasound scanning as the diagnostic test of choice to evaluate venous reflux.

Treatment Options: Comparison of open surgical treatment (ligation and stripping) vs endovenous ablation techniques, thermal vs non-thermal ablation, and management of incompetent perforating veins.

Concomitant Treatment: Recommendations on the concomitant vs staged treatment of varicose tributaries using phlebectomy or sclerotherapy.

The 2023 Society for Vascular Surgery, American Venous Forum, and American Vein and Lymphatic Society clinical practice guidelines for the management of varicose veins of the lower extremities. Part II [9]

Study Design: This document is part II of the clinical practice guidelines by the Society for Vascular Surgery, American Venous Forum, and American Vein and Lymphatic Society for the management of varicose veins of the lower extremities. It includes evidence-based recommendations based on systematic reviews and meta-analyses.

Target Population: Patients with varicose veins of the lower extremities, including those with CEAP class 2 varicose veins.

Key Factors:

Compression Therapy: Recommendations for the use of compression therapy vs intervention and post-procedure compression therapy.

Pharmacological Treatment: Recommendations for the use of venoactive drugs and nutritional supplements for symptomatic patients.

Evaluation and Treatment: Guidelines for the evaluation and treatment of varicose tributaries, management of superficial venous aneurysms, and management of complications such as thrombosis and bleeding.

ANALYSIS OF EVIDENCE

Key Points of Agreement [6,7,9]

1. **Duplex Ultrasound Scanning**: All articles agree on its importance for diagnosing venous reflux.

2. **Endovenous Ablation**: Preferred over traditional surgical methods due to better patient outcomes and quicker recovery.
3. **Compression Therapy**: Recommended as an initial treatment, especially for less severe cases.

While there is a consensus on the importance of duplex ultrasound scanning and the effectiveness of endovenous ablation techniques, the guidelines differ in their emphasis on pharmacological treatments, ethical considerations, and the management of complications. These differences highlight the evolving nature of varicose vein treatment and the need for personalized approaches based on individual patient needs and clinical judgment.

POLICY HISTORY

Date	Summary
March 2026	• Clarified language in the General section • Defined nonthermal types of ablation including medical adhesives • Added plan of treatment section • Added sections on truncal veins, perforator veins, varicose and tributary veins, spider and reticular veins • Adjusted limitations • Adjusted definitions and acronyms/abbreviations in the background section
January 2026	• Added Plan of Treatment • Added Shared decision-making requirements • Added documentation requirements • Added technologist certifications • Added definition of truncal veins • Added limitations on treating truncal veins • Added defining extent of the Anterior saphenous and posterior accessory saphenous veins • Added requirement for detailed 2020 CEAP and R-VCSS
December 2025	• Codes within the Coding section were edited to reflect changes made by the American Medical Association. Deleted: 37500
June 2025	• Added third bullet to general information

Date	Summary
	• Added medical adhesive as a General treatment method • Added Summary of Evidence and Analysis of Evidence
January 2025	• This guideline replaces UM 1252 Endovascular Venous Laser-Radiofrequency Ablation • This guideline replaces UM 1253 Lower Extremity Venous Ligation/Stripping • This guideline replaces UM 1254 Lower Extremity Venous Sclerotherapy • This guideline replaces UM 1255 Lower Extremity Venous Stab Phlebectomy

LEGAL AND COMPLIANCE

Guideline Approval

Reviewed / Approved by Evolent Specialty Services Clinical Guideline Review Committee

Disclaimer

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Evolent Clinical Guidelines are comprehensive and inclusive of various procedural applications for each service type. Our guidelines may be used to supplement Medicare criteria when such criteria is not fully established. When Medicare criteria is determined to not be fully established, we only reference the relevant portion of the corresponding Evolent Clinical Guideline that is applicable to the specific service or item requested in order to determine medical necessity.

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