NHS
Bedfordshire
Clinical Commissioning Group

Procedure that requires Prior Approval

NHS England Evidence Based Interventions (EBI) statement

Number	9
Subject	Management of Varicose Veins
Date of decision	September 2014
Date of review	May 2019
Date of refresh	December 2019: NHSE EBI[1] statement added
Date of next review	May 2022

GUIDANCE

Intervention

There are various interventional procedures for treating varicose veins. These include endothermal ablation, ultrasound guided foam sclerotherapy and traditional surgery (this is a surgical procedure that involves ligation and stripping of varicose veins) all of which have been shown to be clinically and cost effective compared to no treatment or treatment with compression hosiery. Varicose veins are common and can markedly affect patients quality of life, can be associated with complications such as eczema, skin changes, thrombophlebitis, bleeding, leg ulceration, deep vein thrombosis and pulmonary embolism that can be life threatening.

Assessment in primary care (BHPF statement)

For the initial assessment of a patient, the clinical severity assessment can be simple observation and does not need special tests. There are seven grades of increasing clinical severity (CEAP classification for chronic venous disorders[2]) See Appendix 1. Red/blue spider veins or flares are all forms of telangiectasia. Reticular veins (easily visible small blue veins) and telangiectasia do not need referral to secondary care. Grade 2 varicose veins which are of cosmetic concern only **do not** need specialist referral and treatment. However, these patients should be referred to secondary care if they have symptomatic varicose veins that are significantly affecting their activities of daily living, as outlined below.

NHSE EBI Recommendation

1.1 Intervention in terms of, endovenous thermal (laser ablation, and radiofrequency ablation), ultrasound guided foam sclerotherapy, open surgery (ligation and stripping) are all cost effective treatments for managing symptomatic varicose veins compared to no

[1] https://www.england.nhs.uk/evidence-based-interventions/ebi-programme-guidance/
[2] https://www.ncbi.nlm.nih.gov/pubmed/15622385

treatment or the use of compression hosiery. For truncal ablation there is a treatment hierarchy based on the cost effectiveness and suitability, which is endothermal ablation then ultrasound guided foam, then conventional surgery.

1.2 Refer people to a vascular service if they have any of the following;-

1. Symptomatic * primary or recurrent varicose veins.
2. Lower-limb skin changes, such as pigmentation or eczema, thought to be caused by chronic venous insufficiency.
3. Superficial vein thrombophlebitis (characterised by the appearance of hard, painful veins) and suspected venous incompetence.
4. A venous leg ulcer (a break in the skin below the knee that has not healed within 2 weeks).
5. A healed venous leg ulcer.

*Symptomatic: "Veins found in association with troublesome lower limb symptoms (typically pain, aching, discomfort, swelling, heaviness and itching)."

Additional BHPF definition of 'symptomatic': Symptomatic primary or recurrent varicose veins are not normally funded in the absence of the above. An individual funding request may be submitted in exceptional cases taking into consideration if the varicose veins are significantly affecting the patient's quality of life, as demonstrated in the Adapted revised Venous Clinical Severity Score (Vasquez et al (2010)[3] or their ability to work or provide care. See Appendix 1 for details, [In this case a detailed description is needed of the effect of the varicose veins on these functions. NB in the case of pain only, this will need to be classed as severe, with a detailed description of how it affects their ability to carry out work or care / self-care functions]

For patients whose veins are purely cosmetic and are not associated with any symptoms do not refer for NHS treatment

1.3 Refer people with bleeding varicose veins to a vascular service immediately.

1.4 Do not offer compression hosiery to treat varicose veins unless interventional treatment is unsuitable.

For further information, please see:

- https://www.nice.org.uk/guidance/qs67
- https://www.guidelinesinpractice.co.uk/nice-referral-advice-11-varicoseveins/300594.article
- https://www.nice.org.uk/guidance/cg168

Rationale
International guidelines, NICE guidance and NICE Quality standards provide clear evidence of the clinical and cost-effectiveness that patients with symptomatic varicose veins should be referred to a vascular service for assessment including duplex ultrasound.

[3] https://www.jvascsurg.org/article/S0741-5214(10)01638-1/fulltext

Open surgery is a traditional treatment that involves surgical removal by 'stripping' out the vein or ligation (tying off the vein), this is still a valuable technique, it is still a clinically and cost-effective treatment technique for some patients but has been mainly superseded by endothermal ablation and ultrasound guided foam sclerotherapy.

Recurrence of symptoms can occur due to the development of further venous disease, that will benefit from further intervention (see above). NICE guidance states that a review of the data from the trials of interventional procedures indicates that the rate of clinical recurrence of varicose veins at 3 years after treatment is likely to be between 10–30%.

For people with confirmed varicose veins and truncal reflux NICE recommends:

- Offer endothermal ablation of the truncal vein.
- If endothermal ablation is unsuitable, offer ultrasound-guided foam sclerotherapy.
- If ultrasound-guided foam sclerotherapy is unsuitable, offer surgery.
- Consider treatment of tributaries at the same time
- Do not offer compression hosiery to treat varicose veins unless interventional treatment is unsuitable.

Complications of intervention include recurrence of varicose veins, infection, pain, bleeding, and more rarely blood clot in the leg. Complications of non-intervention include decreasing quality of life for patients, increased symptomatology, disease progression potentially to skin changes and eventual leg ulceration, deep vein thrombosis and pulmonary embolism.

OPCS codes

L841-46, L848-49, L851-53, L858-59, L861-62, L868-69, L871-79
L84% Combined operations on varicose vein of leg
L85% Ligation of varicose vein of leg
L86% Injection into varicose vein of leg
L87% other operations on varicose vein of leg
L88% Transluminal operations on varicose vein of leg

Human Rights and Equalities legislation has been considered in the formation of this policy statement.

References

1. NICE Guidance: https://www.guidelinesinpractice.co.uk/nice-referral-advice11-varicose-veins/300594.article

2. NICE Guidance: https://www.nice.org.uk/guidance/cg168

3. NICE Quality Standard: https://www.nice.org.uk/guidance/qs67

4. Editor's Choice - Management of Chronic Venous Disease: Clinical Practice Guidelines of the European Society for Vascular Surgery (ESVS). Wittens C, Davies AH, Bækgaard N, Broholm R, Cavezzi A, Chastanet S, de Wolf M, Eggen C, Giannoukas A, Gohel M, Kakkos S, Lawson J, Noppeney T, Onida S, Pittaluga P, Thomis S, Toonder I, Vuylsteke M, Esvs Guidelines Committee, Kolh P, de Borst GJ, Chakfé N, Debus S, Hinchliffe R, Koncar I, Lindholt J, de Ceniga MV, Vermassen F, Verzini F, Document Reviewers, De Maeseneer MG, Blomgren L, Hartung O, Kalodiki E, Korten E, Lugli M, Naylor R, Nicolini P, Rosales A Eur J Vasc Endovasc Surg. 2015 Jun;49(6):678-737. doi: 10.1016/j.ejvs.2015.02.007. Epub 2015 Apr 25.

5. The care of patients with varicose veins and associated chronic venous diseases: clinical practice guidelines of the Society for Vascular Surgery and the American Venous Forum. Gloviczki P1, Comerota AJ, Dalsing MC, Eklof BG, Gillespie DL, Gloviczki ML, Lohr JM, McLafferty RB, Meissner MH, Murad MH, Padberg FT, Pappas PJ, Passman MA, Raffetto JD, Vasquez MA, Wakefield TW; Society for Vascular Surgery; American Venous Forum. J Vasc Surg. 2011 May;53(5 Suppl):2S-48S. doi: 10.1016/j.jvs.2011.01.079..

6. A Randomized Trial of Early Endovenous Ablation in Venous Ulceration.Gohel MS1, Heatley F1, Liu X1, Bradbury A1, Bulbulia R1, Cullum N1, Epstein DM1, Nyamekye I1, Poskitt KR1, Renton S1, Warwick J1, Davies AH1; EVRA Trial Investigators. N Engl J Med. 2018 May 31;378(22):2105-2114. doi: 10.1056/NEJMoa1801214. Epub 2018 Apr 24

Appendix 1: CEAP classification for chronic venous disorders[4]:

CEAP classification of chronic venous disease	Clinical classification
C0	**No visible or palpable signs of venous disease**
C1	**Teleangiectasies or reticular veins**
C2	**Varicose veins**
C3	**Oedema**
C4a	**Pigmentation or eczema**
C4b	**Lipodermatosclerosis or athrophie blanche**
C5	**Healed venous ulcer**
C6	**Active venous ulcer**

[4] https://www.ncbi.nlm.nih.gov/pubmed/15622385

Appendix 2: Priorities Forum Adapted Revised Venous Clinical Severity Score (based on Vasquez et al (2010))[5]

Table I Revised Venous Clinical Severity Score				
	None: 0	**Mild: 1**	**Moderate: 2**	**Severe: 3**
Pain or other discomfort (ie, aching, heaviness, fatigue, soreness, burning) Presumes venous origin	Occasional pain or other discomfort (ie, not restricting regular daily activities)	Daily pain or other discomfort (ie, interfering with but not preventing regular daily activities)	Daily pain or discomfort (ie, limits most regular daily activities)	
Varicose veins				
"Varicose" veins must be ≥3 mm in diameter to qualify in the standing position.	Few: scattered (ie, isolated branch varicosities or clusters)Also includes corona phlebectatica (ankle flare)	Confined to calf or thigh	Involves calf and thigh	
Venous edema				
Presumes venous origin	Limited to foot and ankle area	Extends above ankle but below knee	Extends to knee and above	
Skin pigmentation				
Presumes venous origin Does not include focal pigmentation over varicose veins or pigmentation due to other chronic diseases	None or focal	Limited to perimalleolar area	Diffuse over lower third of calf	Wider distribution above lower third of calf
Inflammation				
More than just recent pigmentation (ie, erythema, cellulitis, venous eczema, dermatitis)	Limited to perimalleolar area	Diffuse over lower third of calf	Wider distribution above lower third of calf	
Induration				
Presumes venous origin of secondary skin and subcutaneous changes (ie, chronic edema with fibrosis, hypodermitis). Includes white atrophy and 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 mo	>3 mo but <1 y	Not healed for >1 y
Active ulcer size (largest active)	N/A	Diameter <2 cm	Diameter 2-6 cm	Diameter >6 cm

[5] https://www.jvascsurg.org/article/S0741-5214(10)01638-1/fulltext

Table II Instructions for using the Revised Venous Clinical Severity Score	
On a separate form, the clinician will be asked to:	
"For each leg, please check 1 box for each item (symptom and sign) that is listed below."	
Pain or other discomfort (ie, aching, heaviness, fatigue, soreness, burning)	
The clinician describes the four categories of leg pain or discomfort that are outlined below to the patient and asks the patient to choose, separately for each leg, the category that best describes the pain or discomfort the patient experiences.	
None = 0:	None
Mild = 1:	Occasional pain or discomfort that does not restrict regular daily activities
Moderate = 2:	Daily pain or discomfort that interferes with, but does not prevent, regular daily activities
Severe = 3:	Daily pain or discomfort that limits most regular daily activities
Varicose Veins	
The clinician examines the patient's legs and, separately for each leg, chooses the category that best describes the patient's superficial veins. The standing position is used for varicose vein assessment. Veins must be ≥3 mm in diameter to qualify as "varicose veins."	
None = 0:	None
Mild = 1:	Few, scattered, varicosities that are confined to branch veins or clusters. Includes "corona phlebectatica" (ankle flare), defined as >5 blue telangiectases at the inner or sometimes the outer edge of the foot
Moderate = 2:	Multiple varicosities that are confined to the calf or the thigh
Severe = 3:	Multiple varicosities that involve both the calf and the thigh
Venous Edema	
The clinician examines the patient's legs and, separately for each leg, chooses the category that best describes the patient's pattern of leg edema. The clinician's examination may be supplemented by asking the patient about the extent of leg edema that is experienced.	
None = 0:	None
Mild = 1:	Edema that is limited to the foot and ankle
Moderate = 2:	Edema that extends above the ankle but below the knee
Severe = 3:	Edema that extends to the knee or above
Skin Pigmentation	
The clinician examines the patient's legs and, separately for each leg, chooses the category that best describes the patient's skin pigmentation. Pigmentation refers to color changes of venous origin and not secondary to other chronic diseases.	
None = 0:	None, or focal pigmentation that is confined to the skin over varicose veins
Mild = 1:	Pigmentation that is limited to the perimalleolar area
Moderate = 2:	Diffuse pigmentation that involves the lower third of the calf
Severe = 3:	Diffuse pigmentation that involves more than the lower third of the calf
Inflammation	
The clinician examines the patient's legs and, separately for each leg, chooses the category that best describes the patient's skin inflammation. Inflammation refers to erythema, cellulitis, venous eczema, or dermatitis, rather than just recent pigmentation.	

None = 0:	None
Mild = 1:	Inflammation that is limited to the perimalleolar area
Moderate = 2:	Inflammation that involves the lower third of the calf
Severe = 3:	Inflammation that involves more than the lower third of the calf
Induration	
The clinician examines the patient's legs and, separately for each leg, chooses the category that best describes the patient's skin induration. Induration refers to skin and subcutaneous changes such as chronic edema with fibrosis, hypodermitis, white atrophy, and lipodermatosclerosis.	
None = 0:	None
Mild = 1:	Induration that is limited to the perimalleolar area
Moderate = 2:	Induration that involves the lower third of the calf
Severe = 3:	Induration that involves more than the lower third of the calf
Active Ulcer Number	
The clinician examines the patient's legs and, separately for each leg, chooses the category that best describes the number of active ulcers.	
None = 0:	None
Mild = 1:	1 ulcer
Moderate = 2:	2 ulcers
Severe = 3:	≥3 ulcers
Active Ulcer Duration	
If there is at least 1 active ulcer, the clinician describes the 4 categories of ulcer duration that are outlined below to the patient and asks the patient to choose, separately for each leg, the category that best describes the duration of the longest unhealed ulcer.	
None = 0:	No active ulcers
Mild = 1:	Ulceration present for <3 mo
Moderate = 2:	Ulceration present for 3-12 mo
Severe = 3:	Ulceration present for >12 mo
Active Ulcer Size	
If there is at least 1 active ulcer, the clinician examines the patient's legs, and separately for each leg, chooses the category that best describes the size of the largest active ulcer.	
None = 0:	No active ulcer
Mild = 1:	Ulcer <2 cm in diameter
Moderate = 2:	Ulcer 2-6 cm in diameter
Severe = 3:	Ulcer >6 cm in diameter