

# Evidence Based Intervention

## Varicose Vein Interventions

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## Policy:

This is a national Evidence Based Intervention policy formally adopted by Hertfordshire and West Essex Integrated Care Board. Please see <https://ebi.aomrc.org.uk/>

Varicose veins are a common problem affecting up to 40% of adults. In some these are asymptomatic, but many people are affected by significant pain and complications including irreversible skin damage, venous eczema, venous thrombosis, ulceration and bleeding. Overall, varicose veins have a significant impact upon Health Related Quality of Life (HRQoL). Ulcer disease particularly has a severe impact upon HRQoL and is very expensive to treat.

NICE guidance identifies interventional treatment as being highly clinically effective, cost-effective and recommends access for all patients with symptoms or complications. These treatments are almost all delivered as day case local anaesthetic procedures using endothermal ablation or non-thermal methods such as ultrasound guided foam sclerotherapy.

## Criteria

NHS treatment should not be offered to patients with asymptomatic varicose veins who wish to have treatment for purely cosmetic reasons.

1. It is recommended not to offer patients definitive treatment with compression hosiery unless they are not suitable for any other interventions. Compression hosiery can be an option for treatment whilst awaiting intervention, or for the indication of VTE prophylaxis when clinically appropriate.

2. Patients should have an **urgent referral (within 2 weeks)** to a vascular service for the following:

- Bleeding varicose veins requiring treatment.
- A venous leg ulcer (a break in the skin below the knee that has not healed within two weeks).
- Superficial vein thrombosis (thrombophlebitis) (characterised by the appearance of hard, painful veins) and suspected venous incompetence.

Patients should have a **routine referral** to a vascular service for the following:

- Symptomatic\* primary or recurrent varicose veins.
- Lower limb skin changes, such as pigmentation or eczema, thought to be caused by chronic venous insufficiency.
- A healed venous leg ulcer.

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

[Venous Disease – Assessment and Referral Form](#)

3. Assessment should include clinical examination and Duplex ultrasound.

4. For people with confirmed varicose veins and truncal reflux (as per NICE CG168):

- Offer endothermal ablation.
- If endothermal ablation is unsuitable, offer ultrasound-guided foam sclerotherapy.
- If ultrasound-guided foam sclerotherapy is unsuitable, offer surgery.

If incompetent varicose tributaries are to be treated, consider treating them at the same time.



5. A validated decision support tool should be used when consenting patients for possible intervention taking into account factors such as severity, patient choice and patient health status. An example of decision aid tool can be found on the [NHS website](#).

### **Rationale for Recommendation**

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.

These criteria remain up to date taking into account current literature and should be applied in full by NHS services. The current guidance reflects this position, with a number of slight modifications in line with newer evidence and guidance.

The EVRA trial and subsequent Cochrane review has established that early intervention in patients with a venous leg ulcer is highly clinically effective and cost saving. This adds to the ongoing HRQoL deficit and high healthcare costs as a rationale for urgent referral for assessment and intervention in this group.

NICE CG168 covers the diagnosis and management of patients with varicose veins. NICE guidance makes reference to patients with bleeding ulcers who should be referred to vascular services immediately.

There is evidence outlined in more recent guidelines that associate superficial vein thrombosis (SVT, thrombophlebitis) with deep vein thrombosis (DVT) (including in the contralateral limb). DVT is a significant health concern which can acutely lead to the potentially life-threatening condition of pulmonary embolus. Chronically it can lead to a post-thrombotic syndrome in around half of patients, which in turn is challenging to treat and leads to significant symptoms, tissue damage and ulceration.

Patients with SVT should be evaluated urgently and assessed for the need of a short course anticoagulation if they are found to have extensive SVT. This role may be fulfilled by a VTE service rather than directly by the vascular service, however patients with underlying varicose veins as the cause should be assessed and if appropriate, offered intervention by the vascular service to reduce the risk of recurrence.

### **Patient Information**

#### **About the condition**

Varicose veins are swollen and enlarged veins that can occur in your legs. They develop when the small valves inside the veins stop working properly. In a healthy vein, blood is prevented from flowing down the leg by a series of valves that open and close to let blood through. If the valves weaken or are damaged, the blood can flow backwards and collect in the vein, eventually causing it to become swollen and enlarged (varicose).

This may cause symptoms such as pain, throbbing, aching or itching and can damage the skin of your leg which may be permanent. If you have any of these symptoms or other complications your doctor will refer you to a vascular specialist.

This should be done urgently in the following circumstances:



- Ulcer (a wound on your leg which has not healed within 2 weeks).
- Bleeding.
- Hard, red and painful segment of a vein (superficial vein thrombosis or thrombophlebitis).

Your vascular specialist will explain the treatment options to you, including the benefits and risks of intervention and what will happen if you do nothing.

### **What are the BENEFITS of the intervention?**

There is strong evidence to suggest that treatment of varicose veins can help to improve your quality of life, improve ulcer healing and other symptoms, and prevent further complications. Treatment now almost always involves a simple walk-in walk-out procedure of either:

- **Endothermal ablation.** Radiofrequency or laser energy is used to heat and close the affected veins.
- **Ultrasound guided foam sclerotherapy.** Foam medication is injected into the affected vein to close it.
- **Ultrasound guided medical glue (cyanoacrylate).** A special type of medical 'superglue' is injected into the affected vein to close it.

Open surgery to remove the veins from the leg (also known as 'high tie and stripping') is an option for some patients but should only be carried out if other treatments are not suitable.

### **What are the RISKS?**

The risks from the treatment are low but include deep vein thrombosis (DVT), pulmonary embolus (PE), nerve damage, bleeding, bruising, infection and pain.

Varicose veins can also recur even after an initially successful treatment.

Endothermal ablation, foam sclerotherapy and cyanoacrylate procedures are usually carried out under local anaesthetic. Most people can return to normal activities including work within 24 hours.

### **What are the ALTERNATIVES?**

Compression stockings can be helpful but are only recommended if suitable treatments are not possible for you. Regular exercise, avoiding standing for long periods of time or elevating the affected area when resting may relieve some symptoms. Varicose veins may be more common in people who have gained weight. Maintaining a healthy weight through diet and exercise is beneficial.

### **What if you do NOTHING?**

Varicose veins don't always need treatment. But if the veins are causing you pain, discomfort, swelling or are leading to other complications such as bleeding, skin discolouration, thrombosis or ulceration you should seek treatment.

Further information can be found at <https://ebi.aomrc.org.uk/interventions/varicose-vein-interventions/> . This weblink was correct as of 01/10/2024



## Coding

### **Code script**

```
WHEN LEFT(der.Spell_Dominant_Procedure,4) in  
( 'L841','L842','L843','L844','L845','L846','L848','L849','L851','L852','L853','L858','L859','L861','L862','L  
863','L868','L869','L871','L872','L873','L874','L875','L876','L877','L878','  
L879','L881','L882','L883','L888','L889')  
AND (der.Spell_Primary_Diagnosis like '%I83[0129]%'  
OR der.Spell_Primary_Diagnosis like '%O220%'  
OR der.Spell_Primary_Diagnosis like '%O878%'  
OR der.Spell_Primary_Diagnosis like '%Q278%')  
AND APCS.Admission_Method not like ('2%')  
THEN 'Q_var_veins'
```

### **Code Definitions**

#### **Procedure codes (OPCS)**

L841 Combined operations on primary long saphenous vein  
L842 Combined operations on primary short saphenous vein  
L843 Combined operations on primary long and short saphenous vein  
L844 Combined operations on recurrent long saphenous vein  
L845 Combined operations on recurrent short saphenous vein  
L846 Combined operations on recurrent long and short saphenous vein  
L848 Other specified combined operations on varicose vein of leg  
L849 Unspecified combined operations on varicose vein of leg  
L851 Ligation of long saphenous vein  
L852 Ligation of short saphenous vein  
L853 Ligation of recurrent varicose vein of leg  
L858 Other specified ligation of varicose vein of leg  
L859 Unspecified ligation of varicose vein of leg  
L861 Injection of sclerosing substance into varicose vein of leg NEC  
L862 Ultrasound guided foam sclerotherapy for varicose vein of leg  
L863 Injection of glue into varicose vein of leg  
L868 Other specified injection into varicose vein of leg  
L869 Unspecified injection into varicose vein of leg  
L871 Stripping of long saphenous vein  
L872 Stripping of short saphenous vein  
L873 Stripping of varicose vein of leg NEC  
L874 Avulsion of varicose vein of leg  
L875 Local excision of varicose vein of leg  
L876 Incision of varicose vein of leg  
L877 Transilluminated powered phlebectomy of varicose vein of leg  
L878 Other specified other operations on varicose vein of leg  
L879 Unspecified other operations on varicose vein of leg  
L881 Percutaneous transluminal laser ablation of long saphenous vein  
L882 Radiofrequency ablation of varicose vein of leg  
L883 Percutaneous transluminal laser ablation of varicose vein of leg NEC  
L888 Other specified transluminal operations on varicose vein of leg  
L889 Unspecified transluminal operations on varicose vein of leg

#### **Diagnosis codes (ICD)**

I830 Varicose veins of lower extremities with ulcer  
I831 Varicose veins of lower extremities with inflammation  
I832 Varicose veins of lower extremities with both ulcer and inflammation  
I839 Varicose veins of lower extremities without ulcer or inflammation  
O220 Varicose veins of lower extremity in pregnancy



O878 Other venous complications in the puerperium (this code is used to classify conditions puerperal varicose veins, but also classifies other venous puerperal complications)

Q278 Other specified congenital malformations of peripheral vascular system (this code is used to classify congenital varicose veins, but also classifies other peripheral vascular complications)

### Exclusions

apcs.der\_diagnosis\_all not like '%C[0-9][0-9]%' and

apcs.der\_diagnosis\_all not like '%D0%' and

apcs.der\_diagnosis\_all not like '%D3[789]%' and

apcs.der\_diagnosis\_all not like '%D4[012345678]%'

This code captures code in the ranges C00-C99, D00-D09 and D37-D48.

Age range: the codes use the following age ranges 0-18 for children and 19-120 for adults.

### — Private Appointment Exclusion

AND apcs.Administrative\_Category<>'02'

### References:

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2. NICE Guidance (2013) Varicose veins: diagnosis and management [CG168]
3. NICE Quality Standard (2014) Varicose veins in the legs [QS67]
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8. Cai PL, Hitchman LH, Mohamed AH, Smith GE, Chetter I, Carradice D. Endovenous ablation for venous leg ulcers. Cochrane Database of Systematic Reviews 2023, Issue 7. Art. No.: CD009494. DOI: 10.1002/14651858.CD009494.pub3.
9. National Wound Care Strategy Programme (2020). Lower Limb | National Wound Care Strategy Programme. [online] NWCSPP.



## Change History:

Version	Date	Reviewer(s)	Revision Description

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