NICE National Institute for Health and Care Excellence

NICE guidance

Cyanoacrylate glue occlusion for varicose veins

HealthTech guidance
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www.nice.org.uk/guidance/htg540

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Your responsibility

This guidance represents the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, healthcare professionals are expected to take this guidance fully into account, and specifically any special arrangements relating to the introduction of new interventional procedures. The guidance does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

All problems (adverse events) related to a medicine or medical device used for treatment or in a procedure should be reported to the Medicines and Healthcare products Regulatory Agency using the Yellow Card Scheme.

Commissioners and/or providers have a responsibility to implement the guidance, in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity, and foster good relations. Nothing in this guidance should be interpreted in a way that would be inconsistent with compliance with those duties. Providers should ensure that governance structures are in place to review, authorise and monitor the introduction of new devices and procedures.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

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This guidance replaces IPG670 and IPG526.

1 Recommendations

1.1 Evidence on the safety and efficacy of cyanoacrylate glue occlusion for varicose veins is adequate to support the use of this procedure provided that standard arrangements are in place for clinical governance, consent and audit. Find out what standard arrangements mean on the NICE guidance page.

1.2 The procedure should only be done by clinicians with appropriate training in this procedure and experience in the use of venous ultrasound.

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2 The condition, current treatments and procedure

The condition

2.1 Varicose veins are a sign of underlying venous insufficiency. Primary valvular incompetence is the most common underlying cause of varicose veins. The saphenous veins are the most frequently affected vessels. Most people with varicose veins have no symptoms, but venous insufficiency may cause fatigue, heaviness, aching, throbbing, itching and cramps in the legs. Chronic venous insufficiency can lead to skin discoloration, inflammatory dermatitis and ulceration.

Current treatments

2.2 NICE's guideline describes the diagnosis and management of varicose veins. Interventional treatment options include endothermal ablation (such as radiofrequency ablation and endovenous laser ablation therapy), foam sclerotherapy, mechanochemical ablation and surgery (usually stripping and ligation of the great and small saphenous veins, and phlebectomies).

The procedure

2.3 Cyanoacrylate glue occlusion for varicose veins aims to close the veins by adherence then fibrosis of the lumen, without the need for tumescent anaesthesia and with reduced need for postoperative compression therapy.

2.4 The procedure is done using local anaesthesia. An introducer sheath is inserted into the distal great saphenous vein and, using ultrasound guidance, a delivery catheter is advanced into position before the saphenofemoral junction. The proximal vein is compressed, and medical glue is delivered in measured doses

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through the tip of the catheter to seal the vein.

2.5 This is repeated at different positions as the catheter is withdrawn, using ultrasound imaging to monitor the procedure. The procedure may also be done in a similar way for the small saphenous vein.

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3 Committee considerations

The evidence

3.1 NICE did a rapid review of the published literature on the efficacy and safety of this procedure. This comprised a comprehensive literature search and detailed review of the evidence from 14 sources, which was discussed by the committee. The evidence included 2 systematic reviews, 3 randomised controlled trials, 3 non-randomised comparative studies, 4 case series and 2 case reports. It is presented in table 2 of the overview. Other relevant literature is in the appendix of the overview.

3.2 The specialist advisers and the committee considered the key efficacy outcomes to be: saphenous vein occlusion rate, recanalisation, symptom relief and quality of life.

3.3 The specialist advisers and the committee considered the key safety outcomes to be: hypersensitivity, granuloma formation, thromboembolism, and nerve injury or paraesthesia.

3.4 Three commentaries from patients who have had this procedure were discussed by the committee.

Committee comments

3.5 The committee was informed that the incidence of hypersensitivity reactions was reported to be about 7% and granuloma formation was rare.

3.6 The committee was informed that there are different products available for this procedure.

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Update information

Minor changes since publication

January 2026: Interventional procedures guidance 670 has been migrated to HealthTech guidance 540. The recommendations and accompanying content remain unchanged.

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Endorsing organisation

This guidance has been endorsed by Healthcare Improvement Scotland.

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