

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

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INTRODUCTION

The European Society for Vascular Surgery (ESVS) has developed new guidelines for the care of patients with Chronic Venous Disease (CVD) of the Lower Limbs. [1] The aim of these guidelines was to provide an update to the existing ESVS Guidelines published in 2015 [2] on the diagnosis and management of CVD, related to the pathology of the superficial, perforating, and deep veins of the lower limbs as well as to abdominal and pelvic venous pathology. In contrast to the 2015 CVD Guidelines, the 2022 Guidelines do not include patients suffering from venous or arteriovenous malformations.

The ESVS CVD 2022 Guidelines include 94 recommendations of which 65 are new additions. 34 of them are Class I, 36 are Class IIa, 17 are Class IIb, and 7 are Class III recommendations, based on different levels of evidence (A, B, C). Most chapters include a strategy subsection, illustrated with a clear flowchart. Management strategies are presented in a way they will be useful and applicable in daily clinical practice. There are many new recommendations of interest worth mentioning.

An extensive chapter has been entirely dedicated to superficial venous incompetence (SVI). Indications for intervention have been considered for each clinical class of the CEAP Classification. Interventional treatment

is recommended for both patients with symptomatic varicose veins (VVs) (CEAP C2s) and patients with skin changes (CEAP C4–C6). When an intervention is required, endovenous thermal ablation (EVTA) is strongly recommended (Class I, Level A). For patients with SVI undergoing intervention, new recommendations about risk assessment for venous thromboembolism (Class I, Level C), individualized thromboprophylaxis strategies (Class IIa, Level B) and duplex ultrasound (US) surveillance (Class IIa, Level C) have been included in the current Guidelines. The duration of post-intervention compression should be decided on an individual basis (Class I, Level A).

When a non-thermal non-tumescent technique is preferred, cyanoacrylate adhesive closure should be considered (Class IIa, Level A), whereas mechanochemical ablation may be considered (Class IIb, Level A) for patients with great saphenous vein (GSV) reflux. Alternatively, if EVTA options are not available for patients with GSV incompetence, high ligation/stripping (Class IIa, Level A) or catheter-directed foam sclerotherapy (Class IIb, Level B) are suggested. The latter technique may mainly be considered for treating saphenous trunks with a diameter less than 6 mm (Class IIb, Level B).

The current Guidelines suggest ambulatory phlebectomy, US guided foam sclerotherapy or a combination of both for the treatment of varicose tributaries (Class

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I, Level B). In patients with combined superficial and deep venous incompetence, treatment of incompetent superficial veins should be considered (Class IIa, Level C).

For the management of small saphenous vein incompetence, EVTA is strongly recommended, in preference to surgery or foam sclerotherapy (Class I, Level A); an upgrade compared to previous Guidelines. It is highlighted that for those treated with EVTA, care should be taken to avoid injury to the sural nerve, if cannulation is carried out below midcalf level (Class I, Level B). Endovenous non-thermal non-tumescent ablation methods are weakly recommended for this patient population (Class IIb, Level B). A new subsection on the incompetence of perforating veins suggests endovenous ablation, division or ligation as a Class IIa, Level C recommendation.

For patients presenting with reticular veins and/or telangiectasias, duplex US of lower extremity veins is recommended to look for associated incompetent veins, which should be treated before considering treatment of smaller veins (Class I, Level C). Compared to previous Guidelines, sclerotherapy for reticular veins has been upgraded to Class I, Level A recommendation and first-choice treatment. Transcutaneous laser has also been upgraded as treatment option for telangiectasias (Class IIa, Level B).

For patients with uncomplicated symptomatic VVs (CEAP C2s), phlebectomies with preservation of the saphenous trunk (ASVAL) have been suggested as a weak recommendation (Class IIb, Level C); a downgrade compared to previous Guidelines. For patients with an incompetent GSV with a large truncal diameter (more than 12 mm), EVTA should be considered (Class IIa, Level C). For patients presenting with foot and ankle VVs, phlebectomy, sclerotherapy, and foot perforating vein ligation may be considered during or after ablation of proximal reflux (Class IIb, Level C). For patients with symptomatic recurrent VVs without truncal incompetence, US guided foam sclerotherapy and/or ambulatory phlebectomy is recommended (Class IIa, Level C). If there is residual or recurrent truncal incompetence, EVTA or US guided foam sclerotherapy should be considered (Class IIa, Level B). In general, re-exploration of the groin or popliteal fossa is not recommended in patients with recurrent VVs (Class III, Level B).

Deep venous pathology is discussed in a separate chapter, with an emphasis on the increasing evidence in the field of managing iliofemoral and ilio caval obstruction. For patients with iliac vein outflow obstruction,

endovascular treatment remains the first-choice treatment (Class IIa, Level B), while the authors point out that evidence to support endovascular treatment of iliac vein outflow obstruction is still heterogeneous and weak. Management by a multidisciplinary team is highly recommended (Class I, Level C). New recommendations, such as the use of intravascular US to guide treatment (Class IIa, Level C) have been included. US surveillance is also recommended for patients undergoing either endovascular or surgical reconstruction of iliac vein outflow obstruction (Class I, Level C).

Management for acute deep vein thrombosis has been thoroughly covered by a previous ESVS Guidelines document [3]. Principles of treatment for patients who have post-thrombotic syndrome (PTS) are reviewed in the present CVD Guidelines. Surgical or hybrid deep venous reconstruction may be considered in case of a recalcitrant venous leg ulcer (VLU), severe PTS, or disabling venous claudication, when endovascular options alone are not appropriate, as a recommendation Class IIb, Level C, which has been upgraded compared to the 2015 Guidelines.

An entirely new chapter has been dedicated to the management of patients with VLUs. For patients with an active VLU, objective arterial assessment is highly recommended (Class I, Level C). Compression, exerting a target pressure of at least 40 mmHg at the ankle, is strongly recommended to improve ulcer healing as a Class I, Level A recommendation; a stronger level of recommendation compared to previous Guidelines. Compression stockings should be considered for small and recent onset ulcers, as well as for healed VLU in order to reduce ulcer recurrence (Class IIa, Level B). For patients with active VLU and SVI there is a very important new recommendation stating that early endovenous ablation is highly recommended to accelerate ulcer healing (Class I, Level B). For healed VLU, treatment of the incompetent veins is strongly recommended to reduce the risk of ulcer recurrence (Class I, Level A). Moreover, for active or healed VLU, treatment of incompetent superficial veins is recommended, even in the presence of deep venous incompetence (Class I, Level A). Ablation of the sub-ulcer venous plexus using US guided foam sclerotherapy should also be considered as part of the treatment strategy (Class IIa, Level C). For patients with active or healed VLU and iliac vein outflow obstruction, venous stenting should be considered (Class IIa, Level B).

A new chapter describes the management of patients with pelvic venous disorders (PeVD). When suspecting PeVD in women, exclusion of other causes of chronic

pelvic pain is highly recommended (Class I, Level C). Abdominal and/or transvaginal US should be considered in these patients (Class IIa, Level B). In case of symptomatic VVs that may be of pelvic origin, specific duplex US assessment of pelvic escape points is highly recommended (Class I, Level C). Local procedures for VVs and related pelvic escape points should be considered as an initial approach in case of VVs of pelvic origin without pelvic symptoms (Class IIa, Level C). Pelvic vein embolization should only be considered if pelvic symptoms appear, in which case embolization may considerably reduce them (Class IIa, Level B).

Considerations about the management of acute complications have been included in the new Guidelines. In case of spontaneous bleeding from superficial veins, referral for urgent assessment and treatment is highly recommended (Class I, Level C). For patients with CVD who have suffered from an episode of acute bleeding of superficial veins or telangiectasias, local foam sclerotherapy should be considered to prevent recurrent bleeding (Class IIa, Level C). In addition, special patient considerations have been included for the treatment of venous disease in specific patient populations, such as pregnant women, elderly, children, obese and patients under anticoagulant therapy. The case of venous aneurysms is also discussed. For patients with a popliteal vein aneurysm with thromboembolic complications or those that are sacular, fusiform exceeding 20 mm, or containing thrombus, surgical repair should be considered (Class IIa, Level C).

In conclusion, in the current document several new key points and innovations have been identified in comparison to previous Guidelines. As expected, the ESVS CVD 2022 Guidelines have provided many novel

recommendations. Meticulous evaluation of the published literature made it possible for the authors to develop well justified recommendations providing an evidence-based standard that helps clinicians in selecting the best management strategies to achieve optimal outcomes for the care of patients with Chronic Venous Disease of the Lower Limbs.

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