Nottingham University Hospitals NHS
NHS Trust

Guideline Number & Full Title	2402 - Guideline for the management of ultrasound proven superficial vein thrombosis (superficial thrombophlebitis) of the lower limb.
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Division & Speciality:	Haemostasis and Thrombosis Cancer and Associated Specialities
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Ratified by:	Non-malignant haematology governance group
Scope *(Target audience, state if Trust wide):*	Trust wide
Review date *(when this version goes out of date):*	May 2027
Explicit definition of patient group to which it applies *(e.g. inclusion and exclusion criteria, diagnosis):*	Individuals with a proven diagnosis of superficial vein thrombosis. Excluding patients <18 years
Changes from previous version *(not applicable if this is a new guideline, enter below if extensive):*	Update includes: • Diagnosis of SVT within 3 cm of SPJ to be treated as DVT • Use of Rivaroxaban 10mg od (6 week course) for intermediate-risk SVT
Summary of evidence base this guideline has been created from:	Based on References included in appendix 2 Peer reviewed by multi-disciplinary team of specialists in haemostasis and thrombosis comprising clinicians, specialist nurses, pharmacist, biomedical scientists.
This guideline has been registered with the trust. However, clinical guidelines are guidelines only. The interpretation and application of clinical guidelines will remain the responsibility of the individual clinician. If in doubt contact a senior colleague or expert. Caution is advised when using guidelines after the review date or outside of the Trust .	

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1. Introduction

Superficial vein thrombosis (SVT) indicates thrombosis in the superficial venous system in the legs and is estimated to occur more commonly than deep vein thrombosis (DVT). As DVT is within the differential diagnosis for these patients, they are frequently referred to the outpatient nurse-led DVT service or acute medical service for investigation. Ultrasonography performed to rule out DVT may confirm a diagnosis of SVT.

The signs and symptoms of SVT are predominately due to the inflammatory component. These include pain, tenderness, swelling, warmth, erythema and palpable cord along the course of the superficial vein. Ultrasonography is able to confirm the diagnosis as well as describe the size and location of the thrombus. Particularly important is the distance of the SVT from the junction with the deep venous system, measured on ultrasonography. Concomitant DVT is seen in approx. 25% of patients with SVT, and this carries a risk of PE approaching 5% (STEPH study)

The quality of clinical evidence on which to base recommendations for treatment of SVT is poor compared with the evidence for the management of DVT. This guidance has been compiled using the available evidence base and specialist consensus.

2. Diagnosis and risk factors

2.1 Diagnosis

The most important criteria for deciding treatment in patients with SVT are the site and extent of the thrombosis. The ultrasound report must include this information in order to guide selection of appropriate treatment, as described below.

Ultrasound reports must include:

- Site of thrombosis (identification of affected vein)
- Distance from sapheno-femoral junction (SFJ) or sapheno-popliteal junction (SPJ)
- Extent of thrombosis (< or > 5cm in length)

If the ultrasound report does not include measurements, then it is the responsibility of the team who ordered the scan to discuss with radiology to obtain these measurements.

2.2 Risk factors

Risk factors for developing SVT include varicose veins/chronic venous insufficiency, malignancy, oestrogen therapy, pregnancy, obesity, sclerotherapy, prolonged immobility, a previous history of VTE, hereditary and acquired thrombophilia. However, varicose veins account for around 80-90% of cases.

Established risk factors for extension of SVT, leading to DVT/PE influence treatment decisions in SVT. These include:

- age >65 years
- male sex
- previous history of VTE
- malignancy
- patients without varicose veins/chronic venous insufficiency

3. Treatment of ultrasound proven superficial vein thrombosis of the lower limb.

It is expected that patients will be managed as an outpatient. Grade 2 below knee compression stockings may be of symptomatic benefit. These would need to be prescribed and measured via the patient's GP and cannot be supplied by NUH.

Treatment of SVT is dependent of location, size and VTE risk factors. This can be divided into the following categories;

1. SVT which are NOT in the long saphenous vein (LSV) or short saphenous vein (SSV).
2. Low-risk SVT of LSV or SSV
3. Intermediate-risk SVT of LSV or SSV
4. High-risk SVT of LSV or SSV

3.1 Superficial vein thrombosis NOT in long saphenous vein or short saphenous vein;

- These don't require anticoagulation as the risk of propagation and extension in low.
- Topical or oral NSAIDs may provide symptomatic relief.

3.2 Low-risk superficial vein thrombosis of long saphenous vein or short saphenous vein;

- Patients with SVT of <5cm in length of either the LSV/SSV *and* >10cm from SFJ/SPJ *and* no additional VTE risk factors.

- Risk of propagation and extension is low and therefore these patients don't require anticoagulation.
- Topical or oral NSAIDs may provide symptomatic relief.

3.3 Intermediate-risk superficial vein thrombosis of long saphenous vein or short saphenous vein;

Three groups of patients fall into intermediate-risk category. These patients will benefit from a period of prophylactic-dose anticoagulation, to reduce the risk of extension and propagation.

- Patients with SVT of >5cm in length of either the LSV/SSV *and* >3cm from the SFJ/SPJ
- Patients with SVT of either the LSV/SSV *and* with additional risk factors for extension of SVT (see section 2.2)

First line treatment for these patients should be with Rivaroxaban 10mg od for 6 weeks. This recommendation is based on evidence from the SURPRISE trial. If Rivaroxaban is contraindicated then treatment should be with a weight-based prophylactic dose of Enoxaparin for 6 weeks, link below.
(http://nuhnet/nuh_documents/Guidelines/Cancer%20and%20Associated%20Specialties/Clinical%20Haematology/2248.pdf)

3.4 High-risk superficial vein thrombosis of long saphenous vein or short saphenous vein;

- Patients with SVT of either the LSV/SSV ≤3cm from the SFJ/SPJ have a significant risk of extension to DVT.
- These patients should be treated as for DVT with therapeutic anticoagulation for min of 3 months.
- Choice of anticoagulation in these patients is the same as patients with DVT.

4. Further investigation and follow up

Further investigation is not usually required for isolated SVT. However recurrent SVT, particularly at unusual or varying sites can be a sign of underlying malignancy. It is recommended that such patients should have a careful history and clinical examination with appropriate further investigations if cancer is suspected.

Patients with recurrent SVT (2 or more) should be referred to vascular surgery outpatient clinic by their GP for further assessment

All cases of SVT should be reviewed in the VTE follow up meeting. Patients diagnosed via the nurse-led DVT pathway will automatically be discussed. Patients diagnosed with SVT via a different route should be referred via the 'VTE follow up referral' form on Medway.

Intermediate-risk SVT patients should be treated with a finite period of 6 weeks of prophylactic-dose anticoagulation as above (see section 3.3)

High-risk SVT patients usually require a finite period of 3 months of treatment-dose anticoagulation. These patients should be offered secondary thromboprophylaxis at times of elevated VTE risk in the future, for example surgery.

The majority of patients don't require secondary care follow up.

Selected patients may require longer term anticoagulation and these patients will be offered thrombosis clinic follow-up after discussion at the VTE follow up meeting. These patients may include those with recurrent SVT and a history of previous VTE or those with significant ongoing VTE risk factors.

5. Special situations

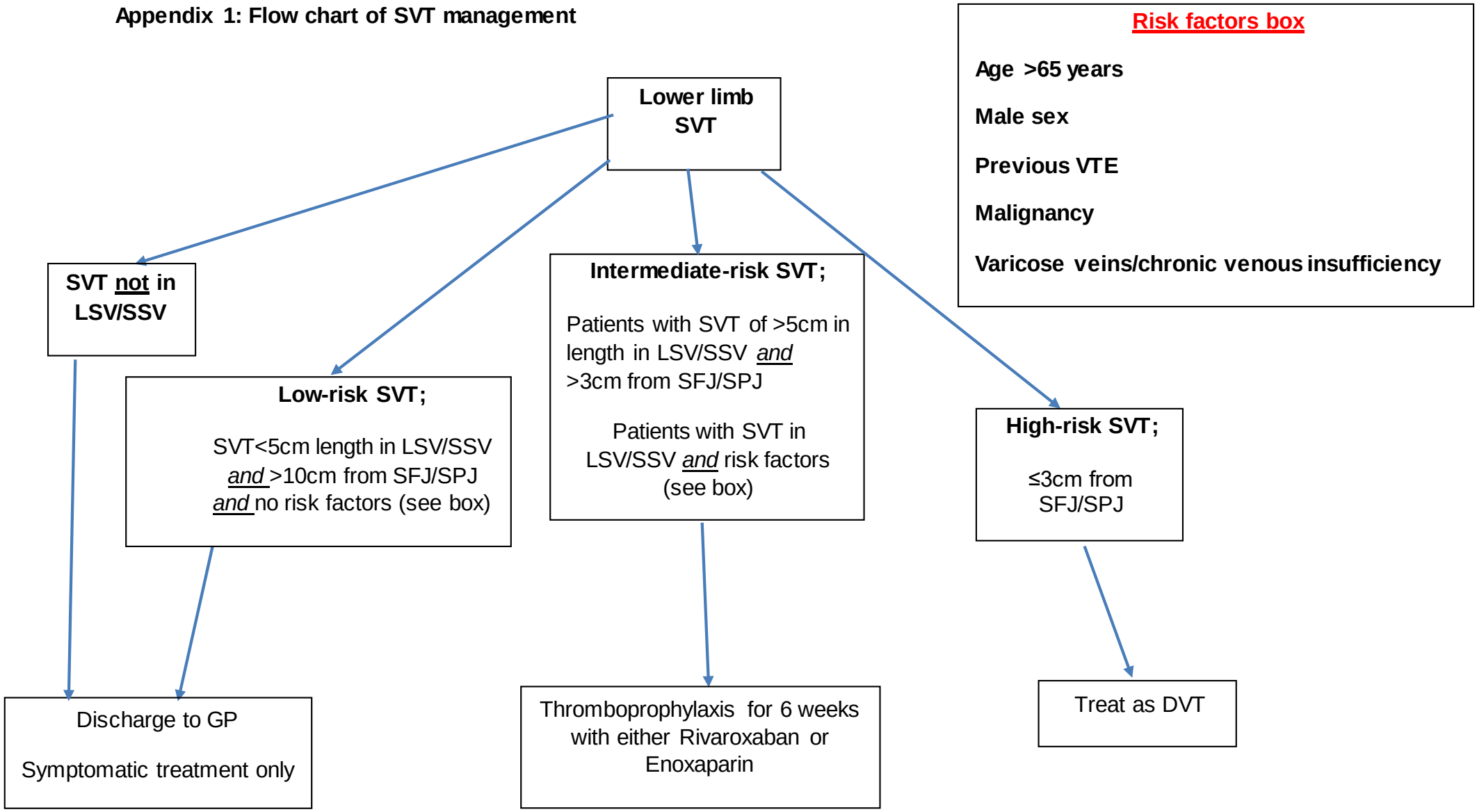
5.1 Post vascular surgery; Patients presenting with SVT within 6 weeks radiofrequency ablation or foam sclerotherapy should be referred directly to the vascular surgery team, rather than continuing on the DVT pathway.

5.2 Pregnancy; All women should have a VTE risk assessment +/- thromboprophyaxis in line with RCOG green-top guideline 37a. Decisions regarding treatment should be made based on risk of progression as described above (see section 3). However, *all women should be treated with Enoxaparin*, as Rivaroxaban is contraindicated in pregnancy. Women with intermediate-risk SVT (section 3.3) or high-risk SVT (section 3.4) should be referred to the obstetric haematology clinic.

5.3 Upper limb SVT or cannula-associated; occurs in 25-35% of hospitalised patients with peripheral intravenous cannula. Local treatment with topical NSAIDs may provide symptomatic relief.

5.4 Trousseau syndrome; recurrent and migratory pattern of inflammation of superficial veins, frequently in unusual sites eg arm or chest. These can be associated with malignancy and a careful history and examination is required. Further investigation will be guided by these findings.

Appendix 1: Flow chart of SVT management



Appendix 2: References

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