A guide for establishing a nurse-delivered venous intervention service

Society of Vascular Nurses

SVN

www.svn.org.uk

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Introduction

The Society of Vascular Nurses prides itself in providing opportunities for vascular nurses throughout the UK in developing professionally through education, research and professional networking with the overarching aim of providing optimal care for patients with vascular disease. As highlighted in our Position Statement published November 2022 we recognise and champion nursing as a growing and innovative profession, and with advances in treatment, technology and care this has created new career opportunities.

The challenges that have been faced by our Vascular consultant colleagues in returning to business as usual post pandemic and achieving waiting list targets for patients with venous disease has been and continues to be difficult. This has led to a review of the service in some areas in how it is delivered and as a result is providing opportunities for specialist nurses to expand their expertise and role. We recognise that there has been Vascular Nurses in the UK providing this service for some time with great success and through the help of Medtronic were bought together to produce a document to support the development of such a service in other hospitals where there has now been an identified need to introduce it.

The SVN is extremely happy to be associated with the production of this document by a group of highly skilled nurses well established in the provision of venous intervention services and also those just in their infancy of developing such a service. We hope the document will provide you with the tools you require to assess the need for such a service in your area, and help identify the skills required to become competent in performing these procedures.

I would like to thank each member of the panel for their input and hard work to develop this document and to the SVN committee for their review and feedback. We look forward to the developing future of nurse specialists in venous disease and management. As this document is utilised in practice we would welcome feedback from you regarding other challenges you may have faced and how you have resolved these to enable us to keep this a benchmark document for best practice.

Gail Curran
SVN President

Welcome

This guide is designed for nurses interested in undertaking a nurse-delivered venous intervention service, to treat superficial venous incompetence using:

- **Endovenous thermal ablation**
- **Foam sclerotherapy**

The mission to develop this Guide was:

- To use our collective experience as nurses to provide advice and support to other nurses interested in establishing a nurse-delivered treatment service for venous disease.
- To produce a guide to support a nurse's individual development to deliver these procedures.
- Not to be prescriptive as variations in practice will exist between hospitals/services and the responsibility for assessing and agreeing competency to perform these procedures must be structured, agreed and carried out at a local level.
- To build on many years of experience across different NHS Trusts to help other nurses on their journey and help enable autonomous nurse-delivered venous treatment.

Other allied health professionals and hospital management with an interest in venous disease and the delivery of a venous treatment service will also find this guide helpful.

DISCLAIMER

This document provides advice and suggestions on how nurses can establish a venous treatment service and must be used in conjunction with the NMC code of practice and Standards.

Responsibility for assessing the competence of someone to perform these procedures rests with the individuals local NHS Trust and their agreed clinical supervisor.

This document does not constitute a competency sign off document.

How this document was developed

A panel of Vascular Nurses, Nurse Specialists and Nurse Consultants came together in September 2021 to discuss what was needed to support nurses interested in venous intervention in the form of endovenous thermal ablation and foam sclerotherapy. The panel included nurse specialists/nurse consultants who are currently running venous intervention services within their hospital trust and those who are training to do so. Supported by an experienced Matron, the panel discussed the barriers and enablers to establishing a venous treatment service with the goal of providing advice and support to other nurses embarking on the journey.

The panel has been established as a sub-group of the Society of Vascular Nurses.

The following steps have been involved in creating this document

1. First panel meeting to discuss needs and map out the steps of each procedure
2. Development of draft step by step guide
3. Second panel meeting to review step by step guide and agree content
4. Final review and approval of the guide

The development of the guide has been supported by Medtronic who have funded the panel meetings, and the writing and design of the guide. Medtronic have had no input or influence into the content of the guide.

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How to get best from this guide

This Guide serves two main purposes

- **To provide advice on how to establish a nurse-delivered venous intervention service – based on the experiences of the panel**
- To provide a step-by-step overview of the two procedures (endovenous thermal ablation and foam sclerotherapy) and the actions required to perform these procedures. This is a starting point to help nurses plan how they train and to create their own detailed competency framework locally.

We have created specific sections and quick links to make the document easy to navigate.

Our recommendation is to read the guide through in its entirety to provide a full picture of what is involved and what advice/support is provided. Then use the tabs and quick links to go to the section that you need the most support with.

What you will get from this guide

NURSES	Use this guide to gain clarity on the steps to take before undertaking new practice. Learning from the experience of others who have been through the same process. Follow the step-by-step overview to develop your own local competencies and plan your training and assessment programme.
SUPERVISORS/ MENTORS	Have a clear picture of what a nurse-delivered venous intervention service entails (including time, funding, experience and business planning) and the steps required to deliver treatment. The step-by-step overview may be useful when planning how to assess the competency of the nurse(s) undergoing training which must be agreed and signed off by your NHS Trust.
MANAGERS/ PROFESSIONAL LEADS	Understand what is involved in a nurse-led venous treatment service before you embark on the journey, including the support that nurses undergoing training will require. Use the business case arguments to support you in establishing the service.
COMMISSIONERS	Learn about the potential benefits of a nurse-delivered venous treatment service and how the service is run effectively elsewhere in the UK.

Competency vs Capability

We have chosen throughout this document to talk about competency. Competency is defined as: *to consistently perform to defined standards required in the workplace, usually focused on the outputs of work and observable performance*.

You may also see the term 'capability' used in other documents. The Skills for Health Definition of Capability is: *The ability to be competent, and beyond this, to work effectively in situations which may be complex and require flexibility and creativity*.

We have taken the decision to focus on competence as we feel that many users will be new to the skills required to deliver the service and becoming competent is the first step required. However, we acknowledge that the skills and knowledge of the practitioner do need to evolve over time to gain clinical capability.

CASE STUDY

Vascular Service Case Study

In 2012, The Vascular service at Aberdeen Royal Infirmary began to develop a specialist nurse delivered venous service. At that time symptomatic venous conditions, CEAP 2 upward, were being assessed and considered for treatment; in 2018 criteria were adjusted to CEAP 4a upward. A very small number of open surgical vein procedures were being performed; the mainstay of the surgical interventions were endothermal ablation and ultrasound guided sclerotherapy. This workload represented a significant allocation of consultant time in referral vetting, outpatient assessment and theatre-based intervention. Waiting list times were in continual failure and in excess of 200 days from referral to treatment.

The key purpose of developing a nurse delivered venous service was to:

- Reduce patient waiting times
- Release consultant capacity
- Deliver a safe, effective, patient centred venous service
- Assess, develop and improve service delivery over time

A vascular nurse specialist was mentored by a consultant surgeon and progressively over an eight-month period, competence in endothermal ablation and sclerotherapy was achieved. The practice education and nurse management team supported this development, and a working competency document was produced and recognised locally.

Key supporting skills, such as the use of duplex ultrasound, were taught and refined locally. Over a short period of time primary care referrals began to be vetted directly by the nurse specialist and a 'one-stop' venous assessment clinic was instigated. History taking, physical examination and diagnostic duplex ultrasound, all specialist nurse delivered and concluding in diagnosis and treatment pathway decision making. In the ten years since this service was instigated, several thousand cases have been successfully treated and many more have passed through the onestop assessment clinic.

At every stage of development, clinical audit and governance was key in ensuring positive patient outcomes, patient safety and service= development. An extremely low complication rate (1%), in line or lower than reported data, alongside periodic patient outcome evaluation, has confirmed that this service is safe and effective, and continues to be so.

Benjamin Cooper *NHS Grampian*

Section 1

Establishing a Nurse-Delivered Venous Treatment Service

The case for nurse-delivered procedures

Nurse-delivered services have been successfully implemented in the NHS across a range of specialties – providing reduced waiting times, improved continuity of care and significant cost-savings, whilst maintaining safe, high quality services.

There is a huge opportunity with venous disease for a nurse-delivered treatment service which can help to reduce waiting times. Many Vascular Nurse Specialists run dependent or co-dependent out patient clinics, seeing patients who have been directly referred from Primary Care to vascular services with a variety of conditions, including venous disease. For continuity of care it makes sense for the treatment part of the pathway to be nurse-delivered too.

It must be recognised that the face of nursing is changing. We have a highly skilled, motivated senior workforce ready and waiting to take on the responsibility of patient intervention. With the correct support education and recognition, nurse interventionalists can provide consistency and expertise to any service.

WHAT TYPE OF ROLE IS THIS?

Being able to perform venous treatments is part of an Advanced Practice Role. This advanced practice role demands the ability to independently assess, investigate and deliver this service independently. The expectation of people delivering this service is that they are working at Band 8a or higher.

The Society of Vascular Nurses Position Statement: Provision of Vascular Specialist Nursing recommends that nurses performing this procedure are Band 8a or higher.

Prior considerations

Gaining competency to perform venous procedures will require a significant investment of time and commitment to training. It requires commitment from both mentor and trainee. Training to full competence will depend on exposure to cases and hands-on practice to gain expertise and confidence to make independent decisions. In our experience, it can take six to twelve months to become competent to deliver venous intervention independently.

Before starting the process, we recommend that you:

- Review and understand your professional code of practice and bear in mind the level of autonomy which you are considering
- Review the current NICE guidelines related to venous intervention
- Review and critically appraisal the underpinning evidence related to venous intervention
- Understand the different venous procedures which can be performed, considering the effectiveness, the evidence base and local provisions
- Take time to observe patients undergoing venous intervention - considering the new range of skills which are required
- Engage with senior nursing and divisional management to ensure you have support for expansion of your role.
- Learn how a nurse-delivered service runs by visiting a centre with an established service (our panel members would be happy to host you for a visit!)
- Think about who your mentor would be (see Who Does What section) and who would act as your clinical supervisor
- Be clear on how the medications you will need to perform the procedures will be prescribed (See Box on Prescribing Medication)
- Understand what type of role this would be and what the banding implications/ career development opportunities would be.
- Consider the importance of ultrasound use in assessment and treatment delivery. This is a key skill set that you will need to address within your training.

In our experience these elements are also required before embarking on this journey:

- Knowledge of anatomy and physiology of veins
- Ability to use ultrasound scanning
- Experience of working in theatres
- Vascular nursing experience
- Non-medical prescribing
- Education/course/experience in clinical diagnostics
- Evidenced understanding of vascular pathophysiology of venous disease processes
- Shadowing someone who can perform the procedure.
- Experience and training in the use of ultrasound imaging.

Competency in Ultrasound

Ultrasound plays a pivotal role in the diagnosis, classification and guidance of percutaneous treatments. It is of critical importance to the practitioner undertaking endovenous thermal ablation and sclerotherapy. In the planning of a nurse delivered service and in the undertaking of competency, you must address the need to gain the necessary ultrasound skills to safely practice these techniques.

Discussion and agreement within your local trust as to the mode of ultrasound training and level of education required will need to be a key consideration in the development of your service.

In Vascular centres with dedicated vascular sonographers/ultrasound practitioners, it should be possible for nurses to learn the necessary skills and undertake a suitable number of venous examinations to gain competency; in some areas the general ultrasound dept. may also be able to facilitate this. An ultrasound mentor, combined or separate from your procedure mentor will be required; formal ultrasound education can be undertaken throughout the country, to augment locally agreed and gained education, practice and competence.

Locally agreed governance will be paramount in the gaining of ultrasound competence.

Key ultrasound knowledge and skills to consider:

- An understanding of ultrasound theory, best practice and safety
- An understanding of vein morphology and the ultrasound features identifying venous disease
- Understanding and use of grayscale and colour Doppler modes
- Correct probe selection, patient positioning and ergonomics
- Ability to image in transverse and longitudinal views
- Identification and understanding of lower limb venous anatomy in relation to other anatomical structures including:
  Deep venous system
  Superficial venous system and associated branch anatomy
- Ability to assess vein size, patency and competency and suitability for endovascular intervention
- Selection of correct ultrasound depth and focus
- Image optimisation and reduction of artefact
- Ultrasound guided cannulation, wire and catheter placement

Prescribing Medication

The Medications detailed within this guide will need to be prescribed. It is important to consider this crucial part of the pathway and ensure that the right policies are in place before starting out. There are two options available:

- Achieving the non-medical prescribing qualification – this will provide the skills, qualification and professional registration required to prescribe.
- Patient Group Directions (PGDs) – provide a legal framework that allows some registered health professionals to supply and/or administer specified medicines to a pre-defined group of patients.

Who needs to be involved and who does what

To help nurses become competent in performing these procedures, there are three key roles:

CLINICAL SUPERVISOR This individual assesses you have the appropriate level of skills and knowledge to undertake venous procedures e.g. Nurse Specialist established and experienced in doing the procedure, or a vascular surgeon.

CLINICAL ASSESSORS This individual who can review your progress and further training/educational needs at different steps e.g. nurse specialist, registrar, vascular scientists.

MENTOR The individual who is helping you through the process and acting as your champion. This is an important role as this person will need to help you to overcome any barriers you face and support you through the whole process. This person can be your clinical supervisor or an assessor, but could also be from another department or part of the hospital.

There are also stakeholders and groups within the hospital who will be involved in getting the procedure up and running include:

- Clinical Director
- Divisional Director
- Vascular Surgeons
- Advanced Nurse Practice Group
- Lead Pharmacist
- AHP Lead
- Trust Education Department
- Access/Unit Manager (the person who is responsible for waiting lists)
- Day-unit Manager/Senior Sister

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THE ROLE OF A MENTOR

Mentors provide guidance, advice, feedback and support. Your mentor might be your clinical supervisor or assessor; in many ways it makes most sense for your mentor to be the vascular surgeon or established nurse specialist who currently delivers these procedures in your area. As you break down the procedure into its component parts and begin to learn how to deliver each step, your mentor will likely be the experienced clinician who teaches and advises you clinically. Trust is of key importance – your trust in your mentor's ability and support, and your mentors trust in you to safely develop the skills required.

Communication should be frank and open from the outset. What are the perceived barriers? Are there specific components of the procedure that one of you feel may be difficult to achieve? What will be the process to deal with a complication, should a complication occur? The mentor relationship should be well established from the outset, to foster an open and clear route to learning and competency. You should feel confident and comfortable with the development process and the other professionals supporting you.

CASE STUDY

Having the right people to support you

In 2017 I was approached by consultant colleagues to consider undertaking venous procedures. Following a period of well supported training, I began to operate independently undertaking both radiofrequency ablation and foam sclerotherapy in 2018.

It took roughly a year for training to be completed and competencies to be achieved. With the support of five surgeons I had the opportunity to see how each one worked and the nuances of their individual surgical practice.

Moving forward in my practice I was able to choose my mentor, this was important as I worked well with him, felt comfortable and was able to ask questions. When the pendulum began to swing towards independence he remained available for clinical discussion, ensuring patient safety and self confidence in my decision making. My consultant colleagues were able to recognise the challenge that moving into an advanced nursing role brings and their support has been ongoing.

Jude Day *North Bristol NHS Trust*

Peer support

It is important to have support and advice from peers – people who have been through the process themselves or are currently on the journey. You are likely to be the only nurse training to do these specific procedures in your hospital and it can feel lonely at times.

The Society of Vascular Nurses (SVN) includes like-minded people who are happy to provide support, advice and a friendly ear to listen.

Identifying clinical nurse specialists/advanced nursed practitioners/nurse consultants from other departments in your hospital who could provide some local support where common challenges can be shared, and support would be available.

Continuous improvement

Once you have been deemed competent to perform these venous procedures, continuous professional development is essential.

Annually auditing of your service is encouraged and provides an opportunity to review performance/effectiveness of care, patient safety and patient experience. This also provides a chance to showcase the impact of nurse-delivered venous services and helps to highlight any areas where improvement is required.

We recommend:

- Following national recognised audit processes
- Linking with local departments – ask for their support and to make sure that your audit is registered within the organisation
- Benchmarking your service before you start – providing a baseline of current service performance, safety and patient experience, enabling comparison of a nurse-led services
- Nursing audits, should as a minimum collect the same data as consultants surgeon audits
- Make sure you audit PREMS (Patient-Reported Experience Measures) – before you kick off the service as a benchmark and then at regular intervals
- Check out the latest information from the Care Quality Commission (CQC) and Get It Right First Time (GIRFT)
- Visit other nurse specialists to learn and improve

MEASURES TO AUDIT

- Patient experience (PREMS)
- Complications – rates and type of complications
- Patient numbers – how many treated, waiting times, number of patients per session.
- Patient adverse events
- Clinical incidents/complaints in relation to service
- Clinical outcomes – during the initial period of treatment delivery, invite patients back to the service several months post treatment and ensure your treatments have been successful. Record baseline symptoms and audit resolution/improved quality of life. Ensure appropriate length of vein treated and that outcomes match your intended result.

CQC AND GIRFT

The Care Quality Commission (CQC), is the independent regulator of health and adult social care in England – they have extensive guidance on standards and how services are inspected and assessed: www.cqc.org.uk

Get It Right First Time (GIRFT), is a national programme designed to improve the treatment and care of patients through in-depth review of services, benchmarking, and presenting a data-driven evidence base to support change. Vascular is one of the workstreams of the programme with dedicated information available: www.gettingitrightfirsttime.co.uk

CASE STUDY

Continually improving our service

Clinical audit is your best friend. It's how you keep track of your patients and their outcomes, how you monitor complications, your progress and the development of your service. Clinical audit is your evidence of capability, of safe practice and effectiveness.

Over the ten years that I have been delivering a venous service, there has been continual need to show, through data and summary, the extent of the workload and the effectiveness of the nurse delivered service. Being able to compare your outcomes to published data and historical service data, allows you to affirm the safety of your practice and service. Patient Related Outcome measures,obtained through periods of auditing patient questionnaires, further helps to establish the value and success of your service.

You should consider collecting data on the following throughout your development and continued practice:

- Number of patients treated
- Clinical severity of veins being treated (CEAP grade)
- Anatomy treated (GSV, SSV, tributary/ branch)
- Patient outcomes/satisfaction
- Complications
- Referral to Treatment Time (RTT)

EXAMPLE AUDIT DATA SUMMARY

REFERRAL TO TREATMENT WAITING TIME	60% reduction (Mean 210 days pre nurse delivered – 83 days @ initial 18 month audit)	
PATIENTS TREATED 2012 - 2022	2,257 patients (1,803 GSV, 454 SSV)	
COMPLICATION RATE 2012 - 2022	1% reported (19 post-operative branch vein phlebitis, 3 DVT, 1 thermal injury)	
COST SAVINGS	Nurse led (B8a) v consultant – approx. 47% reduction	Move from Theatre to treatment room – approx. 30% reduction
PATIENT EXPERIENCE (AVERAGE OF ONCE YEARLY SNAP AUDIT)	Mean satisfaction score = 8 (Linkert scale, 10 being extremely satisfied) Mean intra operative VAS pain score = 3 Time to full recovery, Inc. return to work = 2 days	

Benjamin Cooper *NHS Grampian*

Advice

- Make sure you have access to supervised venous procedure lists in order to practice the procedures. Continuous exposure to procedures is important for training.
- Be prepared to be flexible – there may be weekend lists that will help you to have exposure to the procedures
- Management support is critical – get their support and commitment upfront and keep them informed of your progress
- Steep learning curve at the start – but it does get easier!
- At times things may not go as planned – don't beat yourself up over this. Reflect and use as part of clinical governance to continue to evolve your practice
- Good care is not just about the procedure. An important part of learning to deliver this service comes from also being the clinician who assesses the patient at an early stage. Being the person who first meets the patient, assesses and plans the care pathway, helps form trust in your ability to deliver these treatments. It also means you know the patient is suitable and reduces surprises on the day of treatment.

How to get started

There is a lot to consider in this guide and it may be hard to know where to start. Five things we recommend doing first are:

1. Read the document thoroughly so you know what you are embarking on
2. Review your current role, on your own and with the key people we have suggested. Think about how will taking on delivery of these treatments, and this part of your service, will be incorporated into your job plan and what will the impact be to your role and banding?
3. Make sure you have Trust support and that key decision makers are onboard with the service
4. Identify a Mentor
5. Identify a Clinical Supervisor

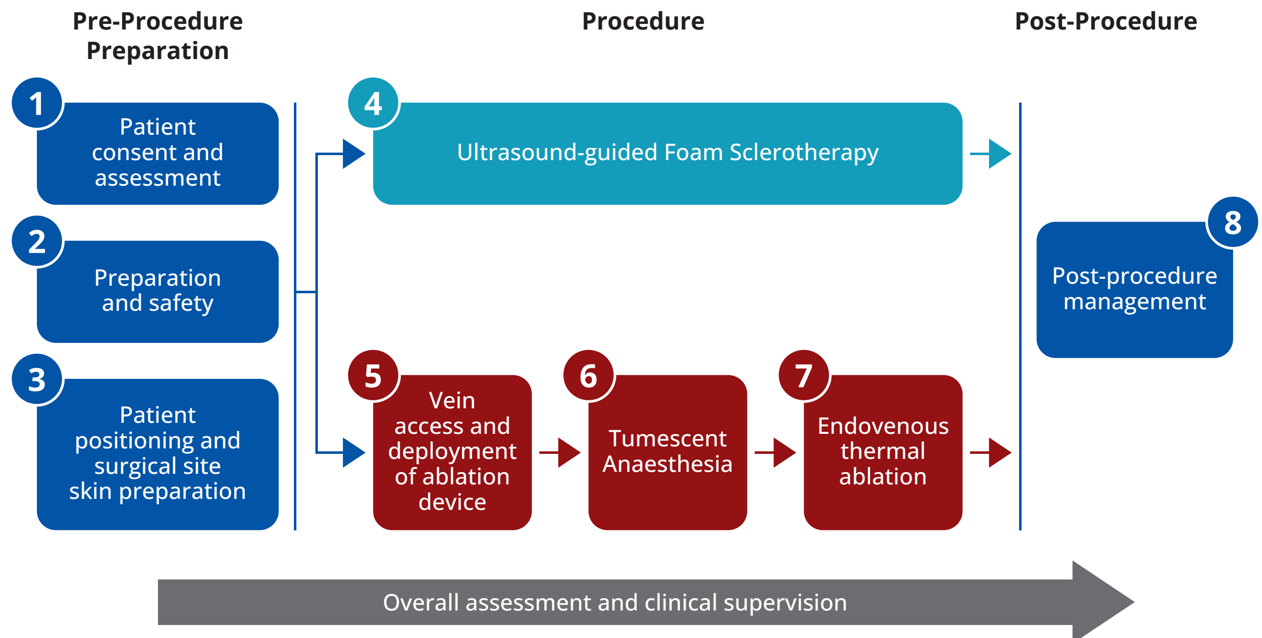
Section 2

Step-by-Step Overview of Endovenous Thermal Ablation and Foam Sclerotherapy

The Procedures – Step-by-Step

In this section of the guide, we have mapped out each procedure – considering the major steps of the procedure and breaking down the key activities required at each step.

The steps pre- and post-procedure are consistent for both procedures. The delivery of the specific treatment is where the steps vary.



For each step we have provided

- Detail on the key points required for each step
- A section to help you find further information on each step and learn more
- Highlighted specific Trust considerations that need to be considered when developing a local competency for this step

Becoming competent at the procedures

This guide is designed to highlight the scope of potential education and exposure to clinical practice required to become competent in venous intervention.

You and your clinical supervisor will need to decide together on how you will train, be assessed and show competence at each stage of the procedure and the procedure as a whole.

We recommend using the Benner's 'novice to expert model' to help you to monitor your progress and identify where you need further training or support.

The Benner's Model

LEVEL OF ACHIEVEMENT	LEVEL	
NOVICE	Cannot perform this activity satisfactorily to the level required in order to participate in the clinical environment	0
	Can perform this activity but not without constant supervision and assistance	1
	Can perform this activity with a basic understanding of theory and practice principles, but requires some supervision and assistance	2
COMPETENT PRACTITIONER	Can perform this activity with understanding of theory and practice principles without assistance and/or direct supervision	3
	Can perform this activity with understanding of theory and practice principles without assistance and/or direct supervision, at an appropriate pace and adhering to evidence based practices. At this level competence will have been maintained for at least 6 months and/or is used frequently (2-3 times/week). The practitioner will demonstrate confidence and proficiency and show fluency and dexterity in practice **THIS IS THE MINIMUM LEVEL REQUIRED TO BE ABLE TO ASSESS PRACTITIONERS AS COMPETENT**	4
	Can perform this activity with understanding of theory and practice principles without assistance and/or direct supervision, at an appropriate pace and adhering to evidence based practice. At this level the practitioner will be able to adapt knowledge and skill to special/ novel situations where there may be increased levels of complexity and/or risk	5
EXPERT	Can perform this activity with understanding of theory and practice principles without assistance and/or direct supervision, at an appropriate pace and adhering to evidence based practice. Demonstrate initiative and adaptability to special problem situations, and can lead others in performing this activity At this level the practitioner is able to co-ordinate, lead and assess others who are assessing competence. Ideally they will have a teaching and /or mentor qualification	6

PRE-PROCEDURE PREPARATION

Steps 1 through to 3 apply to both endovenous ablation and sclerotherapy treatments

STEP 1 Patient Consent and Assessment

The points outlined below are designed to ensure patient safety and effective consent for the procedure. These points are key and essential, but not exhaustive.

The list of points below will need to be discussed and expanded upon in your final competency document, which must be created and agreed locally with your clinical supervisor and Trust management.

KEY POINTS

- Review of relevant clinical documentation and imaging
- Review use of mechanisms to reduce complications of procedure e.g. Venous Thromboembolism (VTE)
- Ensure patient has capacity to consent and proceed
- Explain, discuss and document the specific procedure with the patient
- Explain, discuss and document the rationale for their vein procedure
- Explain, discuss and document the potential risks and complications associated with the vein procedure
- Explain, discuss and document appropriate post procedure care
- Document agreement to proceed with planned intervention, concluding with signing of consent form

KEYWORDS AND RESOURCES

These are resources and keywords that will assist you in creating your locally agreed competency document. This will also assist in your own self-directed learning and knowledge of this step.

KEYWORD	RESOURCE
Consent	BNF www.bnf.nice.org.uk
VTE	NICE www.nice.org.uk
Complications of venous interventions	RCN www.rcn.org.uk

TRUST EXPECTATION

This is a list of potential Trust or local policies that you will need to discuss and explore locally.

VTE prophylaxis

Non-medical consent

STEP 2 Preparation and Safety

The points outlined below are designed to ensure safe and correct patient and clinician preparation for the procedure. These points are key and essential, but not exhaustive.

The list of points below will need to be discussed and expanded upon in your final competency document, which must be created and agreed locally with your clinical supervisor and Trust management.

KEY POINTS

- Assess the required level of sterility depending on environment and procedure
- Confirm previous clinical findings remain unchanged (including ultrasound findings)
- Complete WHO surgical safety checklist
- Review of relevant clinical documentation and imaging
- Ensure appropriate consumables available
- Perform required equipment checks
- Ensure appropriate clinician hand hygiene and use of personal protective equipment (PPE)

KEYWORDS AND RESOURCES

These are resources and keywords that will assist you in creating your locally agreed competency document. This will also assist in your own self-directed learning and knowledge of this step.

KEYWORD	RESOURCE
WHO surgical safety checklist	WHO www.who.int
Personal protective equipment	NICE www.nice.org.uk
Surgical hand hygiene	RCN www.rcn.org.uk

TRUST EXPECTATION

This is a list of potential Trust or local policies that you will need to discuss and explore locally.

- Infection control
- PPE policy

STEP 3 Patient positioning and surgical site skin preparation

The points outlined below are designed to position the patient for the procedure and prepare the skin to minimise the risk of surgical site infection. These points are key and essential, but not exhaustive.

The list of points below will need to be discussed and expanded upon in your final competency document, which must be created and agreed locally with your clinical supervisor and Trust management.

KEY POINTS

- Understand the different patient positioning required for each procedure
- Position patient appropriately, taking into consideration other medical conditions
- Prepare the skin using the locally agreed skin preparation solutions, ensuring they are suitable for endothermal procedures.
- Use appropriate draping technique to maintain a clean operating field
- Always maintain patient dignity

KEYWORDS AND RESOURCES

These are resources and keywords that will assist you in creating your locally agreed competency document. This will also assist in your own self-directed learning and knowledge of this step.

KEYWORD	RESOURCE
Aseptic technique	WHO www.who.int
Surgical skin preparation	BNF www.bnf.nice.org.uk
Surgical draping	NICE www.nice.org.uk
Positioning – trendelenberg/reverse trendelenberg, supine, prone	

TRUST EXPECTATION

This is a list of potential Trust or local policies that you will need to discuss and explore locally.

Infection Control

Theatre policy

PROCEDURE

STEP 4 Ultrasound-guided Foam Sclerotherapy

The points outlined below are designed to safely perform ultrasound-guided foam sclerotherapy.

The list of points below will need to be discussed and expanded upon in your final competency document, which must be created and agreed locally with your clinical supervisor and Trust management.

KEY POINTS

- Ensure correct position of leg to be treated
- Identify vein to be treated using ultrasound guidance
- Identify chosen points of access to the targeted vein
- Select appropriate concentration of sclerosant
- Cannulate targeted vein, potentially with ultrasound guidance
- Create foam from liquid sclerosant using Tessari technique
- Inject the foam and monitor progression of foam using ultrasound guidance
- Advise calf muscle movement post administration
- Remove cannula and dress appropriately

KEYWORDS AND RESOURCES

These are resources and keywords that will assist you in creating your locally agreed competency document. This will also assist in your own self-directed learning and knowledge of this step.

KEYWORD	RESOURCE
Tessari technique	BNF www.bnf.nice.org.uk
Sclerosant	NICE www.nice.org.uk
Ultrasound cannulation	BAS www.bassclerotherapy.com

TRUST EXPECTATION

This is a list of potential Trust or local policies that you will need to discuss and explore locally.

Prescription and administration of sclerosant

STEP 5 Vein access and deployment of ablation device

The points outlined below are designed to safely perform cannulation of the target vein and deployment of ablation device using ultrasound guidance. These points are key and essential, but not exhaustive.

The list of points below will need to be discussed and expanded upon in your final competency document, which must be created and agreed locally with your clinical supervisor and Trust management.

KEY POINTS

- Ensure correct position of leg to be treated
- Identify vein to be treated using ultrasound guidance
- Identify chosen points of access to the targeted vein
- Administer appropriate local anaesthetic safely
- Ensure effectiveness of anaesthetic before proceeding
- Perform ultrasound guided cannulation of the targeted vein
- Proceed through Seldinger technique to achieve full vein access
- Select appropriate ablation device and estimate required length
- Insert ablation device via sheath
- Check safe position of device avoiding deep venous involvement

KEYWORDS AND RESOURCES

These are resources and keywords that will assist you in creating your locally agreed competency document. This will also assist in your own self-directed learning and knowledge of this step.

KEYWORD	RESOURCE
Seldinger technique	BNF www.bnf.nice.org.uk
Local anaesthetic	NICE www.nice.org.uk
Ultra-sound cannulation	

TRUST EXPECTATION

This is a list of potential Trust or local policies that you will need to discuss and explore locally.

Prescription and administration of local anaesthetic

STEP 6 Tumescent Anaesthesia

The points outlined below are designed to safely deliver tumescent anaesthesia.

The list of points below will need to be discussed and expanded upon in your final competency document, which must be created and agreed locally with your clinical supervisor and Trust management.

KEY POINTS

- Prepare tumescent fluid in line with Trust guidelines
- Ensure correct position of leg to be treated
- Understand and operate the tumescent delivery equipment
- Correctly position the needle using ultrasound guidance
- Deliver the tumescent fluid sub-dermally to manoeuvre vein away from skin to minimise risk of skin thermal injury
- Deliver the tumescent fluid intra-fascially to minimise risk of thermal injury to tissue and nerves adjacent to vein

KEYWORDS AND RESOURCES

These are resources and keywords that will assist you in creating your locally agreed competency document. This will also assist in your own self-directed learning and knowledge of this step.

KEYWORD	RESOURCE
Tumescent anaesthesia	BNF www.bnf.nice.org.uk
Venous anatomy	

TRUST EXPECTATION

This is a list of potential Trust or local policies that you will need to discuss and explore locally.

Tumescent anasethesia

STEP 7 Endovenous thermal ablation

The points outlined below are designed to safely ablate targeted vein.

The list of points below will need to be discussed and expanded upon in your final competency document, which must be created and agreed locally with your clinical supervisor and Trust management.

KEY POINTS

- Perform a final safety check and ultrasound confirmed device positioning
- Safely commence the ablation procedure, communicating each action to patient and staff
- Maintain an awareness of the patient's experience throughout the procedure and administer additional tumescent anaesthesia if required
- Perform continuous or stepped device withdrawal as per device instruction for use
- Utilise appropriate technique in removing the access sheath prior to treating distal end of target vein
- Check for any procedure related complications

KEYWORDS AND RESOURCES

These are resources and keywords that will assist you in creating your locally agreed competency document. This will also assist in your own self-directed learning and knowledge of this step.

KEYWORD	RESOURCE
Post procedure complications	NICE www.nice.org.uk
Endovenous ablation	

TRUST EXPECTATION

This is a list of potential Trust or local policies that you will need to discuss and explore locally.

Laser safety protocol

POST PROCEDURE

Step 8 apply to both endovenous ablation and sclerotherapy treatments.

STEP 8 Post-procedure management

The points outlined below are designed to safely complete the venous procedure and discharge the patient home.

The list of points below will need to be discussed and expanded upon in your final competency document, which must be created and agreed locally with your clinical supervisor and Trust management.

KEY POINTS

- Dress wounds according to venous procedure
- Identify and apply the appropriate level of leg compression post-procedure
- Assess and administer VTE prophylaxis if required
- Provide post-operative instructions and safety netting advice to the patient
- Implement local protocols regarding hospital discharge and follow-up
- Update the patient records and documentation
- End of treatment team feedback and reflection

KEYWORDS AND RESOURCES

These are resources and keywords that will assist you in creating your locally agreed competency document. This will also assist in your own self-directed learning and knowledge of this step.

KEYWORD	RESOURCE
Leg compression options	BNF www.bnf.nice.org.uk
VTE prophylaxis	NICE www.nice.org.uk
Discharge	
Safety netting	
Documention	

TRUST EXPECTATION

This is a list of potential Trust or local policies that you will need to discuss and explore locally.

Discharge protocol

The Panel

Louise Allen

Lead Vascular Nurse Specialist

Louise is the Lead Vascular Nurse Specialist at Imperial College Healthcare NHS Trust, London, and an Honorary Lecturer at London South Bank University. She managerially oversees the venous patient pathway, as well as clinically providing an independent nurse-led clinic for patients with varicose veins. She has an interest in the development of nursing roles, studying 'The Clinical Skills and Services provided by the Vascular Nurse Specialist' for her Master's Degree, and delivers a national Vascular Course for Allied Healthcare Professionals.

Benjamin Cooper

Vascular Nurse Consultant

Ben has been autonomously delivering a venous service at NHS Grampian for 10 years, including Endothermal ablation (EVLT/RFA) and Sclerotherapy treatments. Throughout his clinical career, Ben has been driven to improve the quality and efficiency of how we deliver our vascular services through developing and advanced nursing roles, quality improvement methodology and research pathways.

Jude Day

Vascular Lead Clinical Nurse Specialist

A vascular nurse since 1999, Jude has gained experience and clinical knowledge in the vascular ward, the research setting and clinical nurse specialist roles. Having undertaken over 500 procedures and delivering the superficial venous intervention service independently since 2018, Jude is able to take patients through assessment, information sharing, diagnosis in a one stop setting – intervention, follow up and complication management. The ultimate aim being symptomatic relief for patients with venous incompetence.

Sherie Herpie

Matron For Theatre and Day Surgery

Sherie is Matron for elective surgery and Theatres at Airedale NHS foundation Trust. With over 15 years professional experience at a senior level, she possesses extensive knowledge of process redesign and change management within the clinical area.

Matthew Pilcher

Vascular Nurse Specialist

A VNS for over 6 years and responsible for autonomous delivery of Venous Intervention for Bradford Teaching Hospitals NHS Foundation Trust. Matthew has also been consulting with his peers nationally to devise a training and assessment package that will build a team to deliver this service for the Trust.

Other Contributors

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SOCIETY OF VASCULAR NURSES

The Society of Vascular Nurses (SVN) is a professional organization for vascular nurses throughout the UK. Through a culture of sharing, we can offer excellence in clinical practice, education, research and professional networking. The SVN aim to offer its members with opportunities and learning to ensure they have the basis to provide ‘optimal care for patients with vascular disease.

The society has an annual conference, quarterly newsletter, networking opportunities and access to educational bursaries.

www.svn.org.uk

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