LOWER LIMB VARICOSE VEINS DUPLEX

PROTOCOL

Drafted by: Ms. Emma Quilty (EQ)

Reviewed and Authorised by: Dr Cleona Gray (CG)

Signature: _____ **Date: 06.05.2020**

1.0 Purpose

To assess the deep and superficial venous lower limb systems for evidence of valvular incompetence and to establish the source of any reflux indentified in the superficial lower limb veins.

2.0 Revision History

Date	Revision No.	Change	Reference Section(s)
31/03/2020	1	General Update	Entire document

3.0 Persons Affected

Vascular Laboratory Physiologists, Vascular Consultants, NCHD's, Vascular Administration Staff and Patients of the Vascular Laboratory.

4.0 Policy

The policy of the Mater Private Network is to ensure that all vascular staff are aware of the protocol in place for the performace, interprutation and follow up of the right/left lower limb deep and superficial vein Duplex.

5.0 Definitions

Vascular Laboratory Physiologists (VP), Vascular Laboratory (VL), Patient Centre (PC), Vascular Consultant (VC), vascular surgical outpatient Appointment (SOPD), Vascular Surgical Registrar (VSPR), Mater Private Network (MPN).

6.0 Responsibilities

Vascular Physiologists, Vascular Consultants, Vascular Surgical Team and Vascular Administrating staff.

7.0 Procedures

Duplex of Right/Left Lower Limb Deep and Superficial Veins

Common Indications:

Common indications for the performance of lower limb venous insufficiency evaluation include, but are not limited to:

- Skin changes, venous eczema, hyperpigmentation
- Venous ulcers
- Recurrent swelling
- Pain or feelings of heaviness in the lower extremity
- Visible varicose veins
- Venous claudication
- Acute bleeding varicose vein

Contraindications and Limitations:

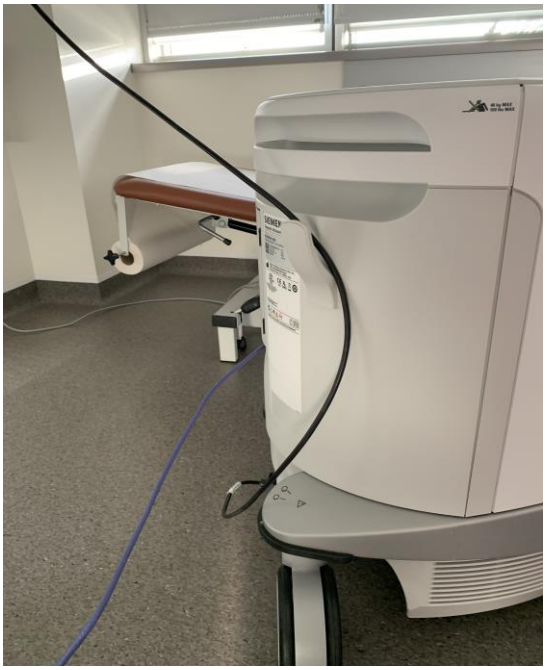
Contraindications for lower limb venous duplex ultrasound for the assessment of venous insufficiency are unlikely; however, some limitations exist and may include the following:

- High patient body mass index
- Casts, dressings, open wounds/ulcers etc can limit visualisation.
- Oedema/swelling.
- Limited mobility e.g. unable to stand
- Patients who are unable to cooperate due to reduced cognitive functions e.g.
- Alzheimer's or dementia and through involuntary movements
- Patient discomfort, particularly calf tenderness
- Patient feeling faint/unwell during examination

Equipment:

- Duplex Doppler ultrasound machine with imaging frequencies of 5.0MHz or greater; Doppler frequencies of at least 3.0MHz and linear array transducer/s with colour Doppler capability.
- Compliance with the Medical Devices Directive is necessary. Electrical safety testing is required annually and is performed as part of all routine servicing of equipment carried out by the manufacturer.
- Review of in-service equipment should typically be undertaken four to six years after installation.
- Examination couch should be height adjustable preferably electrical. The vascular physiologists chair should provide good lumbar support, be height adjustable and allow for them to move close to the examination couch.
- All ultrasound cables must be hooked up off the floor onto the back of the ultrasound system (Picture 1 Below). It is the VP's responsibility to ensure that the surrounding environment is safe for both themselves and the patient.

- The examination room should be temperature controlled with adjustable lighting levels suitable for examination.
- Suitable cleaning materials should be available in line with local and manufactures guidelines.



Picture 1.0 Machine Hook for Cables

Explanation of examination and patient history:

The VP undertaking the examination should:

- Introduce themselves
- Confirm the patient's identity e.g. full name and date of birth
- Explain why the examination is being performed
- Give an explanation of the procedure and its duration – consideration should be made to the age and mental status of the patient
- Obtain verbal consent for the examination
- Obtain a pertinent relevant medical history and presence of risk factors from the patient and/or notes
- Verify that the requested procedure correlates with the patient's clinical presentation.

Patient Positioning:

- For the portion of the exam where the deep veins are being assessed for patency and presence or absence of thrombosis, the patient is examined supine.
- For the portion of the exam where the competency of the veins are being assessed:

- While imaging the thigh and lateral calf veins, the patient is examined in a standing position, facing the examiner with his/her weight on the contralateral limb and the leg being examined slightly bent with their heel on the ground.
- While imaging the posterior calf veins, the patient faces away from the examiner with his/her weight on the contralateral imb and the leg being examined slightly bent with their heel on the ground.

Examination:
The examination may be unilateral or bilateral dependent upon clinical symptoms and departmental policy. The patient is asked to remove their clothing to expose the lower limb from groin to ankle. Due to intimate nature of the examination it may be considered necessary to offer a chaperone. During the examination the patient's mental and physical status should be monitored and modifications made to the examination accordingly.
It is not unusual for patients to feel faint during lower limb assessments, so it is advisable to monitor their well-being regularly (onset of yawning can be a useful sign of imminent feelings of faintness). A second physiologist is required where possible to assist during the exam for this reason and also for manual handling purposes whilst the VP concentrates on the ultrasound assessment.

The following steps should be taken:

- Assess the deep venous system for thrombosis as per department protocol (see lower limb right and left protocol).
- To assess for venous incompence, the patient should be standing. Begin at the groin in a transverse plane and locate the common femoral vein (CFV).
- Rotate the trasnducer in to a longitudonal plane. Using spectral Doppler in the CFV, apply external manual compression to the patient's calf, note the augmentation of the Doppler signal and assess the competency of flow. If the duration of reflux appears borderline, make a precise measurement using spectral Doppler.
- With the transducer in a longitudonal plane, assess the competency of each vein with spectral Doppler as described above.
- Follow the superficial femoral vein (SFV) distally assessing the competency as described above in the upper thigh, mid-thigh and lower thigh.
- Move back to the groin and locate the sapheno-femoral junction (SFJ) in a transverse plane. Assess the competency of the SFJ in the longitudonal plane.
- Assess the patency of the long saphenous vein (LSV) in the transverse plane and competency in the longitudonal plane in the upper thigh, mid-thigh, lower-thigh and upper calf. If the LSV is incompetent confirm any association with superficial varices.
- Reposition the patient to assess the competency (via spectral Doppler in the longitudonal plane) of the popliteal vein.
- Locate the short saphenous vein (SSV). Assess the patency and competency of the SSV in the upper-calf, mid-calf and lower-calf.

- If the SSV is incompetent, the competency and location of the sapheno-popliteal junction (SPJ) should be assessed.
- Any varicose veins that have not been linked to either the long or short saphenous system should also be examined to identify any other sources of reflux i.e. incompetent perforators.

Reflux of greater than 0.5 seconds in duration is classified as incompetent.

Reporting:
The report is a recording and interpretation of observations made during the lower limb venous duplex ultrasound examination; it should be written by the Physiologist undertaking the examination and viewed as an integral part of the whole examination.

The report should include correct patient demographics; date of examination; examination type and the name of the VP performing examintion.

The report should include:

- Which veins have been assessed
- The competency of the veins assessed, the extent of incompetent segments, the presence/absence of any thrombus
- Any anatomical variations due to previous procedures (i.e. absence of LSV due to previous intervention)
- Where thrombus is identified, the location, length/extent, degree of patency and estimate of age should be documented
- Any limitations e.g. if areas in the calf are not visualized due to ulceration
- An appropriate number of annotated images that represent the entire ultrasound examination - in accordance with local protocols and SVT image storage guidelines
- Referral of critical ultrasound results should be made to the referring consultant or appropriate medical/surgical team (as per local protocol) prior to the patient being discharged so that treatment plans can be developed, enforced or expedited accordingly

Follow Up:

- All reports are sent to the ordering consultant by vascular administration staff
- In the case where a finding deemed significant is found, the VP performing the exam is required to ensure that the patient has an appointment for review with the ordering Dr or a VC

LOWER LIMB VARICOSE VEIN DUPLEX

REPORTS

Vascular Laboratory Report

Mater Private Network
Phone: +353(0)1800 200 550 Fax: +353(0)1885 8486
Email: vascular@materprivate.ie Web: www.heartcentre.ie

Referring Clinician:	Patient Name: Patient ID: Date of Birth: Address: Ward: Copy To:

Examination: Varicose Vein Duplex Right Lower Limb			
Study Date:	10/05/2023	**Report Authorised:**	12/05/2023 09:51:37

Reported by Vascular Physiologist:	Murray Nina
Approved by Vascular Surgeon:	Prof Martin O Donohoe MCN 00290

Test Name: Varicose Vein Duplex Right Lower Limb 10/05/2023 14:43

Clinical Indication: Right VVs

Findings:
The deep venous system is competent.

The sapheno femoral junction is competent, as is the long saphenous vein in the thigh. The LSV is incompetent in the upper calf draining varicosities and is competent and of small caliber in the mid and lower calf.

An incompetent lateral tributary noted draining to the sapheno femoral junction and draining the obvious anterior thigh varicosities in the upper-mid thigh. These varicosities also have a connection to the LSV at the knee.

The obvious calf and shin varicosities drain to the LSV in the upper calf.

The short saphenous vein is competent.

Note: A echolucent region (2.6cm x 4.9cm) with echogenic components noted at the medial knee. No flow noted within. Impression: Bakers cyst

Follow up: For review in Rooms today 10/05/2023, no vascular lab follow up arranged

Mater Private Network

Vascular Laboratory Report

Phone: +353(0)1800 200 550 Fax: +353(0)1885 8486
Email: vascular@materprivate.ie Web: www.heartcentre.ie

Referring Clinician:	Patient Name: Patient ID: Date of Birth: Address: Ward: Copy To:

Examination: Varicose Vein Duplex Left Lower Limb			
Study Date:	24/05/2023	**Report Authorised:**	30/05/2023 11:32:59

Reported by Vascular Physiologist:	Murray Nina
Approved by Vascular Surgeon:	Prof Martin O Donohoe MCN 00290

Test Name: Varicose Vein Duplex Left Lower Limb 24/05/2023 15:05

Clinical Indication: Left VVs

Findings:
The deep venous system is competent.

The sapheno femoral junction is competent as is the long saphenous vein in the upper thigh. The LSV is incompetent in the mid and lower thigh and below the knee draining the obvious medial thigh and calf varicosities.

An incompetent medial tributary noted draining to the LSV in the upper thigh and draining varicosities in the mid thigh.

The short saphenous vein is competent.

Follow up: For review in Rooms today 24/05/2023, no vascular lab follow up arranged

Mater Private Network

Vascular Laboratory Report

Phone: +353(0)1800 200 550 Fax: +353(0)1885 8486
Email: vascular@materprivate.ie Web: www.heartcentre.ie

Referring Clinician:	Patient Name: Patient ID: Date of Birth: Address: Ward: Copy To:

Examination: Deep Venous Duplex Right Lower Limb			
Study Date:	26/05/2023	**Report Authorised:**	30/05/2023 11:30:43

Reported by Vascular Physiologist:	Murray Nina
Approved by Vascular Surgeon:	Prof Martin O Donohoe MCN 00290

Test Name: Deep Venous Duplex Right Lower Limb 26/05/2023 14:47

Clinical Indication: Cellulitis

Findings:
The common femoral vein, superficial femoral vein and popliteal vein are patent and compressible with no evidence of acute Deep Venous Thrombosis (DVT) detected.

The anterior tibial, posterior tibial, peroneal and gastrocnemius veins are patent and compressible where imaged with no evidence of acute DVT imaged.

The sapheno femoral junction is patent for ~ 0.7cm. Beyond this the long saphenous vein (LSV) demonstrates mixed predominately echolucent material in the upper and mid thigh. The LSV is patent in the lower thigh and below the knee.

Note: Lymph nodes imaged in the groin. Anthill appearance noted below the knee. Impression: extensive lymphoedema.

Comment: No obvious evidence of DVT

Follow up: No vascular lab follow up arranged

Mater Private Network

Vascular Laboratory Report

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Email: vascular@materprivate.ie Web: www.heartcentre.ie

Referring Clinician:	Patient Name: Patient ID: Date of Birth: Address: Ward: Copy To:

Examination: Varicose Vein Duplex Left Lower Limb			
Study Date:	29/05/2023	**Report Authorised:**	30/05/2023 11:34:10

Reported by Vascular Physiologist:	Murray Nina
Approved by Vascular Surgeon:	Prof Martin O Donohoe MCN 00290

Test Name: Varicose Vein Duplex Left Lower Limb 29/05/2023 09:48

Clinical Indication: recurrent vvs

Findings:
The deep venous system is competent.

No sapheno femoral junction identified. Previous surgery. Neovascularisation noted draining to the common femoral vein in the groin. No long saphenous vein identified in the thigh. The LSV reconstitutes in the upper calf and is incompetent draining varicosities.

The obvious medial thigh varicosities drain to the neovascularisation at the groin.

The varicosities in the mid-calf demonstrate a short segment of non-occlusive highly echogenic material. Impression: Chronic phlebitis. This does not extend to the LSV.

The short saphenous vein is competent.

Follow up: For review in Rooms today 29/05/2023, no vascular lab follow up arranged

Mater Private Network

Vascular Laboratory Report

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Email: vascular@materprivate.ie Web: www.heartcentre.ie

Referring Clinician:	Patient Name: Patient ID: Date of Birth: Address: Ward: Copy To:

Examination: Varicose Vein Duplex Right Lower Limb			
Study Date:	29/05/2023	**Report Authorised:**	30/05/2023 11:34:20

Reported by Vascular Physiologist:	Murray Nina
Approved by Vascular Surgeon:	Prof Martin O Donohoe MCN 00290

Test Name: Varicose Vein Duplex Right Lower Limb 29/05/2023 09:37

Clinical Indication: Recurrent vvs

Findings:
The common femoral and superficial femoral vein are competent. The popliteal vein is incompetent.

The sapheno femoral junction is incompetent as is the long saphenous vein throughout its length draining varicosities.
The obvious upper thigh varicosities drain to the sapheno femoral junction at the groin and to the LSV in the upper and mid thigh.
The obvious calf varicosities drain to the LSV in the upper calf.
Varicosities that appear pelvic in origin noted draining to the spheno femoral junction.

The short saphenous vein is competent.

Follow up: For review in Rooms today 29/05/2023, no vascular lab follow up arranged

Vascular Laboratory Report

Mater Private Network
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Email: vascular@materprivate.ie Web: www.heartcentre.ie

Referring Clinician:	Patient Name: Patient ID: Date of Birth: Address: Ward: Copy To:

Examination: Deep Venous Duplex Right Upper Limb			
Study Date:	31/05/2023	**Report Authorised:**	02/06/2023 10:29:21

Reported by Vascular Physiologist:	Murray Nina
Approved by Vascular Surgeon:	Prof Martin O Donohoe MCN 00290

Test Name: Deep Venous Duplex Right Upper Limb 31/05/2023 11:36

Clinical Indication: right lower arm/hand swelling

Findings:
The portions of the subclavian vein imaged supra and infra clavicularly are patent and phasic with no evidence of thrombus detected.

The axillary, brachial radial and ulnar veins are patent and compressible with no evidence of thrombus detected.

Comment: No obvious evidence of DVT

Follow up: No vascular lab follow up arranged

Mater Private Network

Vascular Laboratory Report

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Email: vascular@materprivate.ie Web: www.heartcentre.ie

Referring Clinician:	Patient Name: Patient ID: Date of Birth: Address: Ward: Copy To:

Examination: Varicose Vein Duplex Left Lower Limb			
Study Date:	02/06/2023	**Report Authorised:**	02/06/2023 10:09:14

Reported by Vascular Physiologist:	Murray Nina
Approved by Vascular Surgeon:	Prof Martin O Donohoe MCN 00290

Test Name: Varicose Vein Duplex Left Lower Limb 02/06/2023 09:39

Clinical Indication: venous insufficiency

Findings:
The deep venous system is competent.

The sapheno femoral junction is incompetent as is the long saphenous vein throughout its length draining varicosities in the mid thigh and below the knee.

An incompetent lateral tributary noted draining to the sapheno femoral junction and draining varicosities in the mid thigh.
A competent medial tributary noted draining to the LSV in the upper thigh.

The short saphenous vein is competent.

Note: Anthill appearance noted in the ankle. Impression: Lymphoedema

Follow up: For review in Rooms today 02/06/2023, no vascular lab follow up arranged.

Mater Private Network

Vascular Laboratory Report

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Email: vascular@materprivate.ie Web: www.heartcentre.ie

Referring Clinician:	Patient Name: Patient ID: Date of Birth: Address: Ward: Copy To:

Examination: Varicose Vein Duplex Right Lower Limb			
Study Date:	02/06/2023	**Report Authorised:**	02/06/2023 10:09:33

Reported by Vascular Physiologist:	Murray Nina
Approved by Vascular Surgeon:	Prof Martin O Donohoe MCN 00290

Test Name: Varicose Vein Duplex Right Lower Limb 02/06/2023 09:28

Clinical Indication: venous insufficiency

Findings:
The deep venous system is competent.

The sapheno femoral junction is incompetent as is the long saphenous vein throughout its length draining varicosities throughout.

An incompetent lateral tributary noted draining to the LSV in the groin and draining varicosities in the mid thigh.

Varicosities noted at the region of interest on the shin draining to the LSV below the knee.

The short saphenous vein is competent.

Note: Anthill appearance noted in the lower calf and ankle. Impression: Lymphoedema

Follow up: For review in Rooms today 02/06/2023, no vascular lab follow up arranged.

Vascular Laboratory Report

Mater Private Network
Phone: +353(0)1800 200 550 Fax: +353(0)1885 8486
Email: vascular@materprivate.ie Web: www.heartcentre.ie

Referring Clinician:	Patient Name: Patient ID: Date of Birth: Address: Ward: Copy To:

Examination: Deep Venous Duplex Left Upper Limb			
Study Date:	14/06/2023	**Report Authorised:**	15/06/2023 11:52:22

Reported by Vascular Physiologist:	Murray Nina
Approved by Vascular Surgeon:	Prof Martin O Donohoe MCN 00290

Test Name: Deep Venous Duplex Left Upper Limb 14/06/2023 10:55

Clinical Indication: left upper arm pain following fall, PE. Query DVT

Findings:
The portions of the subclavian vein imaged supra and infra clavicularly are patent and phasic with no obvious evidence of acute thrombus detected.

The axillary, brachial radial and ulnar veins are patent and compressible with no obvious evidence of acute thrombus detected.

Comment: No obvious evidence of acute DVT

Follow up: No vascular lab follow up arranged

Mater Private Network

Vascular Laboratory Report

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Referring Clinician:	Patient Name: Patient ID: Date of Birth: Address: Ward: Copy To:

Examination: Varicose Vein Duplex Right Lower Limb			
Study Date:	14/06/2023	**Report Authorised:**	15/06/2023 11:50:35

Reported by Vascular Physiologist:	Murray Nina
Approved by Vascular Surgeon:	Prof Martin O Donohoe MCN 00290

Test Name: Varicose Vein Duplex Right Lower Limb 14/06/2023 14:49

Clinical Indication: Lower limb rash, ankle swelling

Findings:
The deep venous system is competent. The superficial femoral vein is bifid in the mid thigh.

The sapheno femoral junction is competent as is the long saphenous vein throughout its length despite draining varicosities in the mid thigh and upper calf.

A competent medial tributary noted draining to the LSV in the upper thigh.

The short saphenous vein is competent and continues superiorly as the giacomini vein draining to the LSV in the upper thigh. A connecting vein noted between the SSV and popliteal vein at the level of the knee crease.

Note: Anthill appearance noted in the lower calf/ankle. Impression: Lymphoedema

Follow up: No vascular lab follow up arranged

Mater Private Network

Vascular Laboratory Report

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Email: vascular@materprivate.ie Web: www.heartcentre.ie

Referring Clinician:	Patient Name: Patient ID: Date of Birth: Address: Ward: Copy To:

Examination: Varicose Vein Duplex Left Lower Limb			
Study Date:	16/06/2023	**Report Authorised:**	20/06/2023 07:45:00

Reported by Vascular Physiologist:	Murray Nina
Approved by Vascular Surgeon:	Prof Martin O Donohoe MCN 00290

Test Name: Varicose Vein Duplex Left Lower Limb 16/06/2023 11:29

Clinical Indication: Left VVs

Findings:
The deep venous system is competent.

The sapheno femoral junction is incompetent as is the long saphenous vein throughout its length draining the obvious calf varicosities below the knee.

The short saphenous vein is competent despite draining varicosities in the mid calf.

Follow up: No vascular lab follow up arranged

Mater Private Network

Vascular Laboratory Report

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Email: vascular@materprivate.ie Web: www.heartcentre.ie

Referring Clinician:	Patient Name: Patient ID: Date of Birth: Address: Ward: Copy To:

Examination: Varicose Vein Duplex Right Lower Limb			
Study Date:	16/06/2023	**Report Authorised:**	20/06/2023 07:45:17

Reported by Vascular Physiologist:	Murray Nina
Approved by Vascular Surgeon:	Prof Martin O Donohoe MCN 00290

Test Name: Varicose Vein Duplex Right Lower Limb 16/06/2023 11:15

Clinical Indication: Phlebitis right calf

Findings:
The deep venous system is competent.

The sapheno femoral junction is incompetent as is the long saphenous vein throughout its length draining varicosities below the knee. Segments of occlusive and non occlusive mixed echogenic material imaged in the varicosities in the upper and mid calf. This does not extend into the long saphenous vein. Impression: phlebitis.

The short saphenous vein is competent despite draining varicosities in the upper and mid calf. The medial upper calf varicosities have a connection to the LSV in the lower thigh.

Follow up: No vascular lab follow up arranged

Vascular Laboratory Report

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Referring Clinician:	Patient Name: Patient ID: Date of Birth: Address: Ward: Copy To:

Examination: Varicose Vein Duplex Left Lower Limb			
Study Date:	23/06/2023	**Report Authorised:**	23/06/2023 12:48:42

Reported by Vascular Physiologist:	Murray Nina
Approved by Vascular Surgeon:	Prof Martin O Donohoe MCN 00290

Test Name: Varicose Vein Duplex Left Lower Limb 23/06/2023 10:35

Clinical Indication: VVs

Findings:
The deep venous system is competent.

The sapheno femoral junction is competent as is the long saphenous vein throughout apart from a short segment in the lower calf where it drains varicosities.

The varicosities at the region of interest on the lateral calf drain to the LSV below the knee

A competent lateral tributary noted draining to the LSV in the groin.

The short saphenous vein is competent.

Follow up: For review in Rooms today 23/06/2023

Mater Private Network

Vascular Laboratory Report

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Email: vascular@materprivate.ie Web: www.heartcentre.ie

Referring Clinician:	Patient Name: Patient ID: Date of Birth: Address: Ward: Copy To:

Examination: Varicose Vein Duplex Right Lower Limb			
Study Date:	23/06/2023	**Report Authorised:**	23/06/2023 12:48:33

Reported by Vascular Physiologist:	Murray Nina
Approved by Vascular Surgeon:	Prof Martin O Donohoe MCN 00290

Test Name: Varicose Vein Duplex Right Lower Limb 23/06/2023 10:25

Clinical Indication: VVs

Findings:
The deep venous system is competent.

The sapheno femoral junction is competent as is the long saphenous vein throughout apart from a short segment in the upper calf where it drains varicosities.
The varicosities at the region of interest on the lateral calf drain to the LSV below the knee

Competent medial and lateral tributaries noted draining to the LSV in the groin.

The short saphenous vein is competent.

Follow up: For review in Rooms today 23/06/2023

Mater Private Network

Vascular Laboratory Report

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Email: vascular@materprivate.ie Web: www.heartcentre.ie

Referring Clinician:	Patient Name: Patient ID: Date of Birth: Address: Ward: Copy To:

Examination: Varicose Vein Duplex Right Lower Limb			
Study Date:	23/06/2023	**Report Authorised:**	23/06/2023 11:40:21

Reported by Vascular Physiologist:	Murray Nina
Approved by Vascular Surgeon:	Prof Martin O Donohoe MCN 00290

Test Name: Varicose Vein Duplex Right Lower Limb 23/06/2023 11:17

Clinical Indication: Right calf VVs

Findings:
The deep venous system is competent.

The sapheno femoral junction is incompetent, as is the long saphenous vein throughout its length draining varicosities in the mid thigh and below the knee.
The obvious calf varicosities and obvious foot varicosities drain to the LSV in the mid calf.

The short saphenous vein is incompetent draining varicosities in the mid calf. The short sapheno popliteal junction is incompetent and is located at the knee crease, 1.87cm deep.
The SSV demonstrates a short segment of non-occlusive echogenic material in the mid calf. This does not extend into the popliteal vein. Impression: chronic phlebitis.

Follow up: For review in Rooms today 23/060/2023, no vascular lab follow up arranged

Mater Private Network

Vascular Laboratory Report

Phone: +353(0)1800 200 550 Fax: +353(0)1885 8486
Email: vascular@materprivate.ie Web: www.heartcentre.ie

Referring Clinician:	Patient Name: Patient ID: Date of Birth: Address: Ward: Copy To:

Examination: Varicose Vein Duplex Left Lower Limb			
Study Date:	30/06/2023	**Report Authorised:**	30/06/2023 10:58:09

Reported by Vascular Physiologist:	Murray Nina
Approved by Vascular Surgeon:	Prof Martin O Donohoe MCN 00290

Test Name: Varicose Vein Duplex Left Lower Limb 30/06/2023 09:50

Clinical Indication: Left calf vvs

Findings:
The common femoral vein is competent. The superficial femoral vein is competent in the upper and mid thigh and incompetent in the lower thigh. The popliteal vein is competent.

The sapheno femoral junction is competent as is the long saphenous vein throughout its length despite draining varicosities in the mid thigh.

The short saphenous vein is incompetent in the upper calf draining the obvious calf varicosities. These varicosities also have a connection to the LSV in the mid thigh. The SSV is competent in the mid and lower calf. The short sapheno popliteal junction is incompetent and is located 2cm above the knee crease, 1.53cm deep.

Follow up: For review in Rooms today 30/06/2023, no vascular lab follow up arranged

Mater Private Network

Vascular Laboratory Report

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Email: vascular@materprivate.ie Web: www.heartcentre.ie

Referring Clinician:	Patient Name: Patient ID: Date of Birth: Address: Ward: Copy To:

Examination: Varicose Vein Duplex Right Lower Limb			
Study Date:	30/06/2023	**Report Authorised:**	30/06/2023 11:27:55

Reported by Vascular Physiologist:	Murray Nina
Approved by Vascular Surgeon:	Prof Martin O Donohoe MCN 00290

Test Name: Varicose Vein Duplex Right Lower Limb 30/06/2023 10:36

Clinical Indication: Right leg spider veins

Findings:
The deep venous system is competent.

The sapheno femoral junction is competent as is the long saphenous vein in the thigh. The LSV is incompetent below the knee draining varicosities in the calf. The small ankle varicosities drain to the LSV in the lower calf.

The short saphenous vein is competent.

No obvious varicosities noted at the regions of interest on the thigh and posterior knee.

Follow up: For review in Rooms today 30/06/2023, no vascular lab follow up arranged

Mater Private Network

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Email: vascular@materprivate.ie Web: www.heartcentre.ie

Referring Clinician:	Patient Name: Patient ID: Date of Birth: Address: Ward: Copy To:

Examination: Deep Venous Duplex Left Lower Limb			
Study Date:	07/07/2023	**Report Authorised:**	07/07/2023 12:08:15

Reported by Vascular Physiologist:	Murray Nina
Approved by Vascular Surgeon:	Prof Martin O Donohoe MCN 00290

Test Name: Deep Venous Duplex Left Lower Limb 07/07/2023 10:39

Clinical Indication: Query DVT

Findings:
The common femoral vein, superficial femoral vein and popliteal vein are patent and compressible with no evidence of acute Deep Venous Thrombosis (DVT) detected.

The anterior tibial, posterior tibial and peroneal veins are patent where imaged with no evidence of acute DVT. The gastrocnemius veins in the upper and mid calf are dilated, however are patent and compressible with no evidence of acute DVT.

Predominately occlusive mixed predominately echolucent material imaged in a varicose vein at the region of interest in the upper to mid calf. This does not extend into the deep veins. Impression: Phlebitis. These varicosities course superiorly and drain deep to the superficial femoral vein in the mid thigh.

Comment: No evidence of DVT. Phlebitis in varicosity in upper-mid calf.

Follow up: No vascular lab follow up arranged

Mater Private Network

Vascular Laboratory Report

Phone: +353(0)1800 200 550 Fax: +353(0)1885 8486
Email: vascular@materprivate.ie Web: www.heartcentre.ie

Referring Clinician:	Patient Name: Patient ID: Date of Birth: Address: Ward: Copy To:

Examination: Deep Venous Duplex Left Lower Limb			
Study Date:	10/07/2023	**Report Authorised:**	18/07/2023 12:11:22

Reported by Vascular Physiologist:	Murray Nina
Approved by Vascular Surgeon:	Prof Martin O Donohoe MCN 00290

Test Name: Deep Venous Duplex Left Lower Limb 10/07/2023 16:07

Clinical Indication: pain in left posterior thigh, query DVT

Findings:
The common femoral vein, superficial femoral vein and popliteal vein are patent and compressible with no evidence of acute Deep Venous Thrombosis (DVT) detected.

The calf veins are patent and compressible where imaged with no evidence of acute DVT imaged.

Note: A highly vascularised mixed echogenic mass (9.2cm x 12.2cm x 15.7cm) noted at the region of interest in the upper aspect of the posterior thigh. Arterial and venous flow noted within. Suggest further imaging to assess.

Follow up: Ward informed, no vascular lab follow up arranged

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Email: vascular@materprivate.ie Web: www.heartcentre.ie

Referring Clinician:	Patient Name: Patient ID: Date of Birth: Address: Ward: Copy To:

Examination: Varicose Vein Duplex Left Lower Limb			
Study Date:	17/07/2023	**Report Authorised:**	18/07/2023 12:07:23

Reported by Vascular Physiologist:	Murray Nina
Approved by Vascular Surgeon:	Prof Martin O Donohoe MCN 00290

Test Name: Varicose Vein Duplex Left Lower Limb 17/07/2023 11:33

Clinical Indication: Previous vv surgery, Previous Right calf DVT

Findings:
The deep venous system is patent and competent with no evidence of DVT.

No sapheno femoral junction identified. No long saphenous vein identified in the thigh or upper calf. The LSV reconstitutes in the mid calf where it is incompetent for a short segment. The LSV is competent in the lower calf.

The short saphenous vein is competent despite draining the medial upper calf varicosities in the upper calf. These varicosities also have a connection to the deep veins in the upper calf.

The portions of the calf veins imaged are patent and compressible with no evidence of acute DVT noted.

Follow up: For review in Rooms today 17/07/2023, no vascular lab follow up arranged

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Referring Clinician:	Patient Name: Patient ID: Date of Birth: Address: Ward: Copy To:

Examination: Varicose Vein Duplex Right Lower Limb			
Study Date:	17/07/2023	**Report Authorised:**	18/07/2023 12:07:32

Reported by Vascular Physiologist:	Murray Nina
Approved by Vascular Surgeon:	Prof Martin O Donohoe MCN 00290

Test Name: Varicose Vein Duplex Right Lower Limb 17/07/2023 11:15

Clinical Indication: Right leg swelling. Previous VV surgery. Previous calf DVT

Findings:
The deep venous system is patent and competent with no evidence of DVT.

No sapheno femoral junction identified. No long saphenous vein identified in the thigh. The LSV reconstitutes in the upper calf where it is incompetent for a short segment. The LSV is competent in the mid and lower calf.

The short saphenous vein is competent.

A gastrocnemius vein in the upper calf is mildly dilated with sluggish flow noted, however is compressible. Query resolved DVT.
The reminder of the calf veins imaged are patent with no evidence of acute DVT noted.

Follow up: For review in Rooms today 17/07/2023, no vascular lab follow up arranged

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Referring Clinician:	Patient Name: Patient ID: Date of Birth: Address: Ward: Copy To:

Examination: Varicose Vein Duplex Right Lower Limb			
Study Date:	21/07/2023	**Report Authorised:**	21/07/2023 10:28:55

Reported by Vascular Physiologist:	Murray Nina
Approved by Vascular Surgeon:	Prof Martin O Donohoe MCN 00290

Test Name: Varicose Vein Duplex Right Lower Limb 21/07/2023 09:47

Clinical Indication: Right calf VVs

Findings:
The deep venous system is competent.

The sapheno femoral junction is incompetent as is the long saphenous vein in the thigh and upper calf . The LSV is competent in the mid and lower calf. The obvious calf varicosities drain to the LSV in the upper and mid calf.

The short saphenous vein is competent.

Follow up: For review in Rooms today 21/07/2023, no vascular lab follow up arranged.

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Email: vascular@materprivate.ie Web: www.heartcentre.ie

Referring Clinician:	Patient Name: Patient ID: Date of Birth: Address: Ward: Copy To:

Examination: Varicose Vein Duplex Left Lower Limb			
Study Date:	21/07/2023	**Report Authorised:**	21/07/2023 11:23:47

Reported by Vascular Physiologist:	Murray Nina
Approved by Vascular Surgeon:	Prof Martin O Donohoe MCN 00290

Test Name: Varicose Vein Duplex Left Lower Limb 21/07/2023 10:05

Clinical Indication: Left VVs, History of phlebitis

Findings:
The deep venous system is competent.

The sapheno femoral junction is incompetent as is the long saphenous vein in the thigh draining the obvious knee varicosities at the knee. The LSV is competent below the knee.

The LSV is patent for ~0.3cm (to the first valve). Beyond this, a short segment (0.8cm) of non-occlusive mixed predominately echogenic material imaged. The remainder of the LSV is patent.
Occlusive mixed echogenic material imaged in the varicosities at the region of interest at the knee. This does not extend into the LSV.
Impression: Phlebitis.

The short saphenous vein is competent despite draining varicosities in the mid calf.

Follow up: For review in Rooms today 21/07/2023, no vascular lab follow up arranged

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Referring Clinician:	Patient Name: Patient ID: Date of Birth: Address: Ward: Copy To:

Examination: Varicose Vein Duplex Right Lower Limb			
Study Date:	31/07/2023	**Report Authorised:**	01/08/2023 11:53:55

Reported by Vascular Physiologist:	Murray Nina
Approved by Vascular Surgeon:	Prof Martin O Donohoe MCN 00290

Test Name: Varicose Vein Duplex Right Lower Limb 31/07/2023 09:00

Clinical Indication: Recurrent VVs

Findings:
The common femoral and popliteal vein are competent. The superficial femoral vein is incompetent in the upper thigh. The SFV is bifid in the mid and lower thigh. The inferior branch is incompetent. The superficial branch is competent.

No sapheno femoral junction identified. Previous surgery. No long saphenous vein identified in the thigh. The LSV reconstitutes at the knee for a short segment where it drains the obvious medial knee and upper calf varicosities. No long saphenous vein identified in the mid calf. The LSV reconstitutes in the lower calf and is competent.

The short saphenous vein is incompetent for a short segment in the upper calf only where it drains the obvious calf varicosities.

Note: A echolucent regions (1.7cm x 2.1cm) imaged in the popliteal fossa. No flow noted within. Impression: Bakers Cyst.

Follow up: For review in Rooms today 31/07/2023, no vascular lab follow up arranged

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Referring Clinician:	Patient Name: Patient ID: Date of Birth: Address: Ward: Copy To:

Examination: Varicose Vein Duplex Left Lower Limb			
Study Date:	31/07/2023	**Report Authorised:**	01/08/2023 11:53:47

Reported by Vascular Physiologist:	Murray Nina
Approved by Vascular Surgeon:	Prof Martin O Donohoe MCN 00290

Test Name: Varicose Vein Duplex Left Lower Limb 31/07/2023 09:13

Clinical Indication: Recurrent VVs

Findings:
The deep venous system is competent.

No sapheno femoral junction identified. Previous surgery. The LSV reconstitutes in the upper thigh draining the medial thigh varicosities and is incompetent to the upper calf draining varicosities in the upper and mid calf. The LSV is competent in the mid and lower calf.
A competent perforator noted between the LSV and the deep calf veins in the mid calf.

The short saphenous vein is incompetent in the upper calf only where it drains the obvious calf varicosities. The SSV continues superiorly petering out in the upper thigh. No connection noted to the popliteal vein.

Note: A echolucent regions (2.4cm x 1.7cm) imaged in the popliteal fossa. No flow noted within. Impression: Bakers Cyst.

Follow up: For review in Rooms today 31/07/2023, no vascular lab follow up arranged