LOWER LIMB VENOUS ASSESSMENT

SCANNER SETTING:
Venous

PROBES:
5-7MHz for deep system and 8-10MHz for superficial system.

PATIENT POSITION:
Supine on a tilting table, at an angle of at least 30 degrees to the horizontal. If necessary for assessing the posterior of the leg have the patient prone. Alternatively have the patient sitting on the edge of a raised couch with the foot resting on the operators' knee.

Spontaneous Flow: Flow in the legs should be spontaneous and phasic going with breathing.

AUGMENTATION MANOUVRES:
Valsalva – Ask the patient to take a deep breath and hold it for a few seconds until you ask them to relax. Flow should significantly reduce or stop. Repeat at least twice to confirm.
Augmentation Squeeze - Perform a firm squeeze of the calf muscle to compress the venous sinusoids and enhance flow in the CFV and SFV and release quickly. Repeat at least twice to confirm. A squeeze of the mid thigh when assessing the CFV can be of benefit if there is a poor response from the calf squeeze.

COMPRESSIBILITY: Using the probe in transverse view, with gentle pressure, press down on the limb. This should compress the vein so that the anterior and posterior walls meet completely. This technique is used to see if there is any thrombus within the vein that is not clearly visualised.

Images: When obtaining images ensure that the correct side and site is recorded. Note any abnormalities and specific structures related to the investigation. Obtain images including the pulsed Doppler flow waveform demonstrating augmented flow at specified sites, even if normal and any reflux.

IC Sept 2012

lower limb venous

Prior to scanning: Ensure the patient is comfortable and not in distress. When assessing for varicose veins, visually examine the patients' leg to assess how the varices are distributed.

SCANNING TECHNIQUE
DEEP SYSTEM – use to assess for DVT or as part of assessing Varicose veins

1. The patient should have their weight on the contralateral leg. Using a 5 – 7MHz probe identify the common-femoral vein at the level of the inguinal ligament in transverse view. Assess the vein for spontaneous flow with the colour Doppler and for compressibility. Identify the sapheno-femoral junction, if present, by scanning distally until the LSV is seen coming off the CFV and becoming superficial. Rotate the probe into a longitudinal view and follow the CFV proximally as far as possible. Using the pulsed Doppler assess the flow in the CFV looking for spontaneous flow going with breathing. Perform a valsalva manouvre and an augmentation squeeze. Obtain an image.

2. Still in longitudinal view scan down to the sapheno-femoral junction and assess the junction for incompetence with a valsalva manouvre and an augmentation squeeze. Obtain an image.

3. Have the patient flex their knee a little and rotate outwards supporting as necessary. With the probe in a transverse view scan distally identifying the femoro-profunda junction. Continue scanning distally compressing the SFV every 3 to 4cm until the adductor canal, assessing for possible thrombus.

4. Return to the femoro-profunda junction and image in longitudinal view. Scan superficial-femoral vein distally until 4 to 5cm below the femoro-profunda junction. Using the pulsed Doppler assess for spontaneous venous flow, perform a valsalva manouvre and an augmentation squeeze. Obtain an image. Scan distally assessing flow at mid SFV as necessary.

5. At the level of the adductor assess flow using the pulsed Doppler, for spontaneous flow. Perform a valsalva manouvre and an augmentation squeeze. Due to the depth of the vessel at this point the returning Doppler signal can be weak and increasing the Doppler gain and also having the cursor and colour box straight can help enhance the signal, as the vessel tends to dive away into the popliteal fossa.

6. View the popliteal vein from the popliteal fossa. With the probe in a transverse plane identify the popliteal vein at the level of the knee crease. Scan proximally and then distally assessing compressibility and identify the sapheno-popliteal junction, if present. Rotate the probe into a longitudinal

view and assess the short saphenous origin with the pulsed Doppler for spontaneous flow, perform an augmentation squeeze. Obtain an image.

7. Scan distally in longitudinal view and assess the distal popliteal vein with the pulsed Doppler for spontaneous flow, perform a valsalva manouvre and an augmentation squeeze. Obtain an image.

If examining for varicose veins go to Superficial Vein Scanning.

Otherwise when assessing for thrombus and none is found in the femoro-popliteal segment assess the deep veins of the calf.

8. Whilst scanning in the popliteal fossa assess the gastronemus and soleus veins for patency by performing compression and an augmentation squeeze.

9. Assess the posterior tibial pair veins by positioning the probe at mid calf level on the medial aspect. To help identify the veins look for the posterior tibial artery. Flow is not usually observed to be spontaneous so an augmentation squeeze at the ankle or foot is the primary mode of assessing patency of calf veins. Scan as proximally as possible and then distally to the ankle. Obtain an image.

10. To assess the peroneal pair veins use the same view as for the posterior tibial pair. The peroneal veins lie deeper and it is sometimes necessary to move the probe a little more posteriorly. Assess for patency and scan as proximally as possible and then distally to the ankle. Obtain an image.

11. The anterior tibial pair veins are usually small and not easily seen and only an augmentation squeeze will make the veins identifiable. To view them assess from an anterior-lateral view of the calf. It is not always necessary to assess the anterior tibial veins, as they tend not to be a main source of DVT.

SUPERFICIAL VEIN SCANNING

Due to the variation in distribution and sites of reflux and recurrence take as many images as required with sufficient descriptive text to allow for review at a later stage.

Perforating veins - can be found along the length of the leg primarily along the medial aspect connecting the long saphenous vein with the deep system. Only incompetent perforating (ICP) veins need to be noted and recorded with an image. ICPs in the thigh with diameters of >2mm and which appear to be the main source of reflux in the superficial varicose vein need to be noted, and for ICPs in the calf, diameters of >3mm need to be noted. Diameter measurements should be taken at the level of the fascia or just inside the muscle group. If reflux appears equivocal with the colour Doppler assess with the pulsed Doppler.

12. Using an 8 – 10MHz probe in transverse view identify the sapheno-femoral junction and proximal long saphenous vein. Due to previous surgery a junction may not be evident and therefore careful determination of any neovascularisation or any incompetent veins that can arise from the pelvic region is required. Measure the diameter of the as proximally as possible also noting the depth. Follow the LSV medially down the thigh assessing for reflux with an augmentation squeeze every 5 –6cm. If reflux is demonstrated with the colour Doppler, assess in longitudinal view with the pulsed Doppler and obtain an image noting the length and how straight the LSV is. If no reflux is demonstrated still obtain an image at knee level. Note on any images taken sites of reflux and any incompetent branches when the LSV itself appears competent. Note the depth of the LSV and any incompetent branches, measure the diameter and depth just above the medial femoral condial and also just below.

A major branch of the LSV, which can be important, is the lateral accessory vein, which divides off the LSV soon after the sapheno-femoral junction. This vein tends to run anteriorally in the thigh and can be the main conduit for reflux instead of the LSV. This vein can also sometimes be mistaken for the LSV.

13. Move to the popliteal fossa to assess the short saphenous vein identify the sapheno-popliteal junction in transverse view and scan distally assessing for reflux with an augmentation squeeze every 5 – 6cm. As for the LSV measure the diameter proximally and distally and the length and depth of the SSV. It may be seen that the Giacomini vein is clearly evident and may be the source of reflux feeding the SSV. Assess the Giacomini just before the junction with the SSV and if incompetent follow it proximally to find its origin usually off the proximal LSV, although the reflux in it may be from a posterior thigh ICP. Obtain an image from the mid to distal SSV.

14. Return to the long saphenous vein distribution at knee level, with the probe in transverse view. Whilst keeping the tibia in view on the left hand side of the image scan down the leg assessing for segmental reflux, significant branches and perforators as necessary. Repeat this with the probe in a more posterior aspect of the calf ensuring that there is some overlap with the previous scanning. Repeat this until you are overlapping with the scan of the SSV.

15. If varices are identified on the lateral aspect of the leg, scan them and try to determine their origin. Obtaining images as required.

	Venous	
Date	CHI	Scan
13/11/2018	2609572050	RLLV
19/11/2018	1903562139	BLLV
19/11/2018	204872154	LLLV
19/11/2018	191031111	BLLV
20/11/2018	1811546285	BLLV
27/11/2018	1206492287	LLLV
18/12/2019	1909452246	BLLV
03/01/2019	611389061	BLLV
08/12/2018	910539066	BLLV
09/01/2018	1809599008	LLLV
10/01/2019	1612552013	BLLV
10/01/2019	1207662216	LLLV
04/10/1952	410522007	LLLV
11/11/1949	1111492131	LLLV
16/01/2019	905412257	BLLV
24/01/2019	2204472328	BLLV
29/01/2019	1408812118	BLLV
30/01/2019	2402522240	BLLV
29/01/2019	2901885543	BLLV
31/01/2019	2402522240	BLLV
06/02/2019	1404612254	BLLV

The Vascular Laboratory - Ward 507
Aberdeen Royal Infirmary

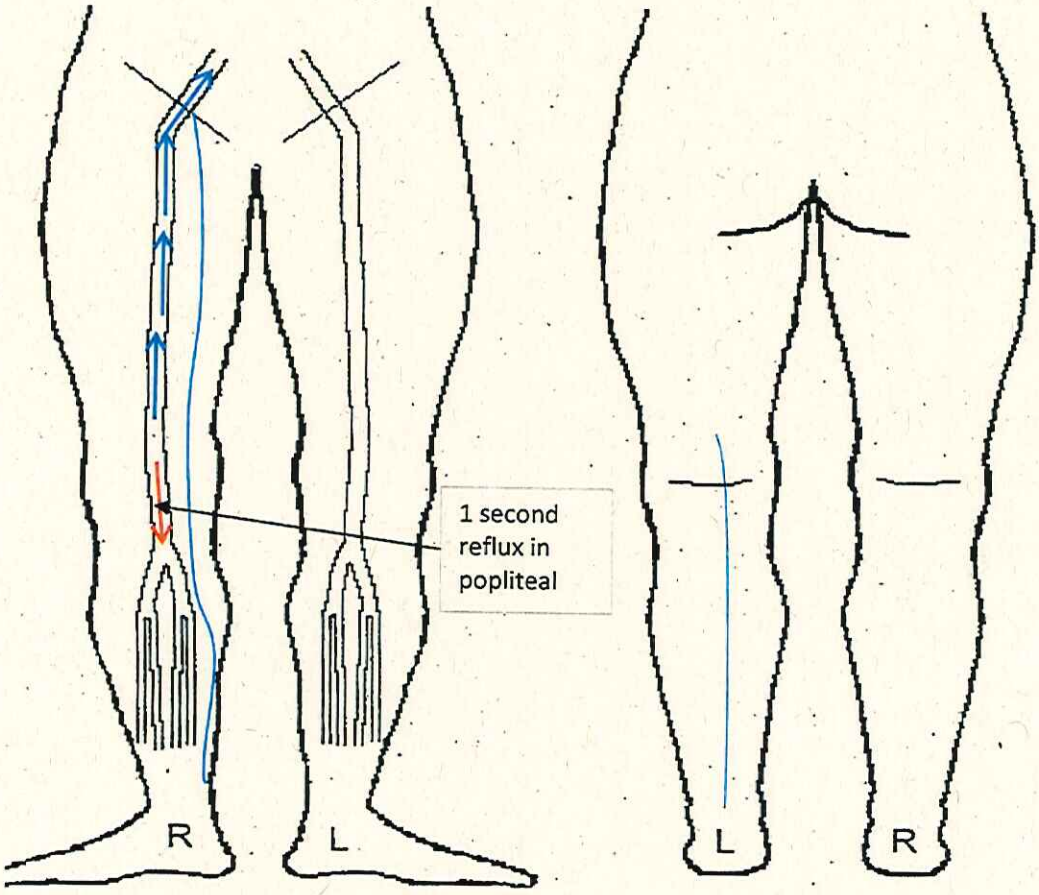
To: Mr Sharp
Consultant Vascular Surgeon
Ward 507 - ARI

Date: 13/11/2018

Patient: Alan Smith **Hosp.No:** 2609572050 **D.O.B:** 26/09/2056

Date of Test:

Test: Venous



Right - deep veins 1 second reflux in popliteal. There was no significant reflux seen in superficial veins

Heather Lynn

lynnhe 13/11/2018 11:08

lynnhe 30/01/2019 12:10

The Vascular Laboratory - Ward 507
Aberdeen Royal Infirmary

To: Mr [redacted] Sayed
Consultant Vascular Surgeon
Ward 507 - ARI

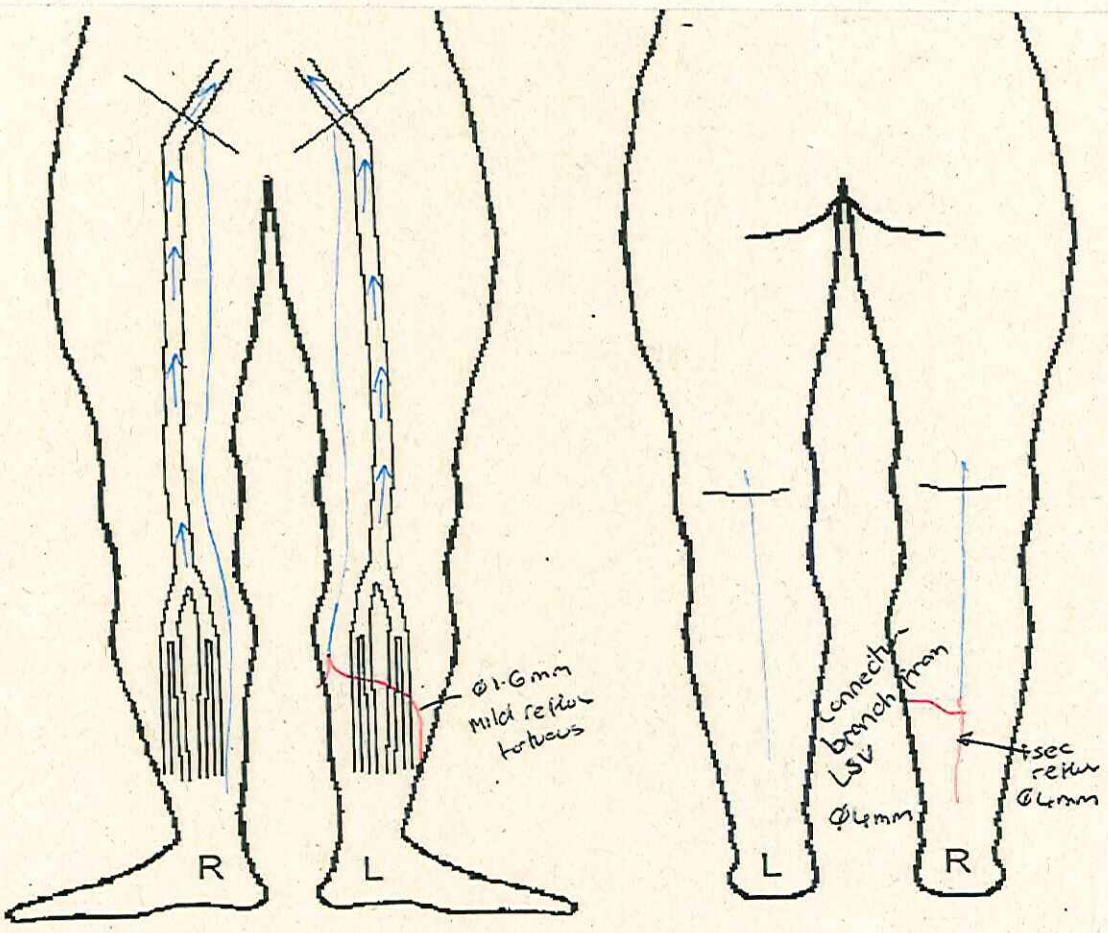
Date: 19/11/2018

Patient: [redacted] Gordon Menhinick

Hosp.No: 1903562139 **D.O.B:** 19/03/1956

Date of Test:

Test: Bilateral lower limb venous



Right - Deep vein, LSV and SSV are patent and competent. At the ankle the distal ATA had a sharp biphasic doppler waveform and the PTA had a sharp triphasic waveform. (both vessel calcified)
Left - Deep vein are patent and competent. LSV prox - 1/3 calf the vessel is patent and competent and distal it becomes incompetent with a incompenet branch that connect to the distal SSV that is alos incompetent. SSV - prox - 2/3 calf the vessel is competent. At the Ankle there is a sharp biphasic waveform in the PTA and ATA (both vessel are calcified)
Heather Lynn

The Vascular Laboratory - Ward 507
Aberdeen Royal Infirmary

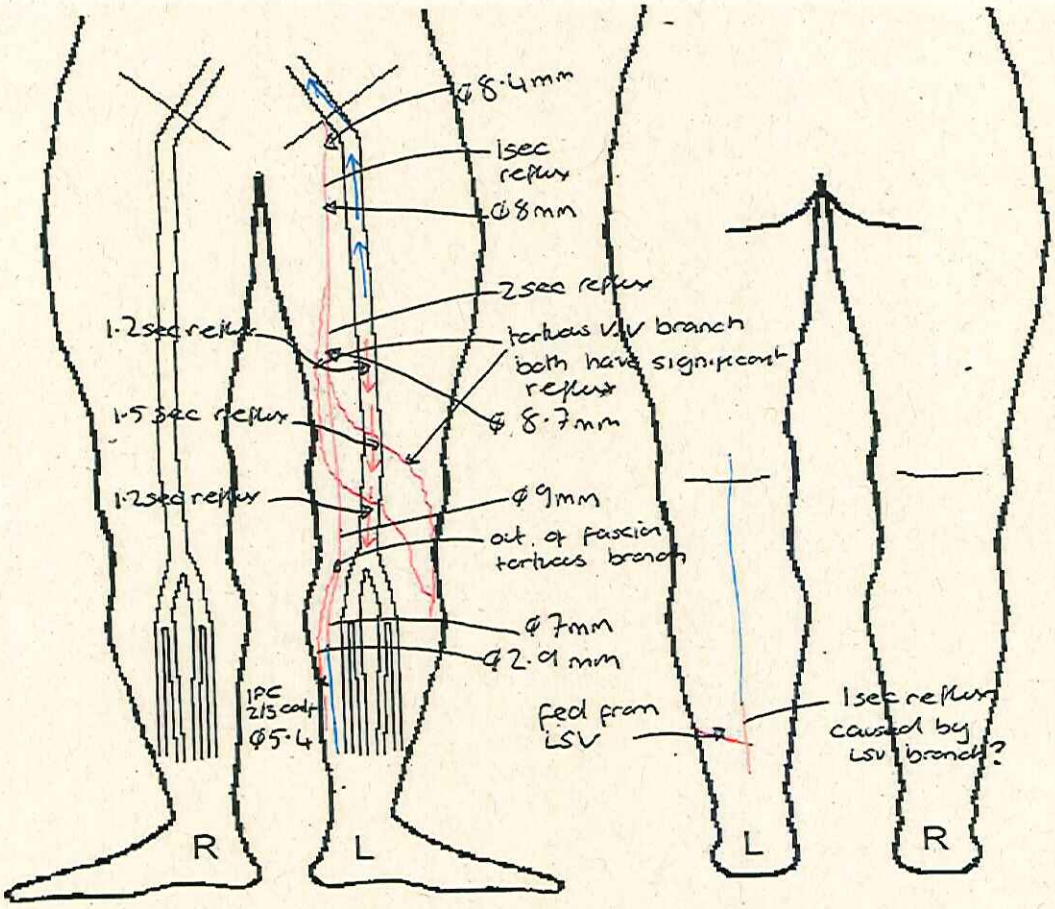
To: Mr [redacted]
Consultant Vascular Surgeon
Ward 507 - ARI

Date: 19/11/2018

Patient: [redacted] **Hosp.No:** 204872154 **D.O.B:** 02/04/1987

Date of Test:

Test: Left lower limb venous



Left - Deep veins - CFV, Prox and Mid SFV are patent and competent. Distal SFV and popliteal are incompetent with 1 - 2 seconds reflux. The LSV prox - 2/3 calf segment is incompetent with 1 - 2 second reflux and dia ~9mm. the vessel remain in the fascial until the knee at this point in feds a tortuous branch that joins a 5.5mm IPC at 2/3 calf. the native vessel remains incompetent until mid calf where it becomes small and no reflux seen distally. In addition to this there is 2 varicose vein branches fed from the LSV the first is at 1/3 thigh and runs parallel to the LSV and then crosses over the knee. The second tortuous branch splits off the LSV at 2/3 thigh and runs across the thigh and joint the proximal branch in the proximal shine. SSV - competent proximally - 3/4 calf at this point the vessel becomes incompetent caused by a conecting branch from the LSV.
Heather Lynn

The Vascular Laboratory - Ward 507
Aberdeen Royal Infirmary

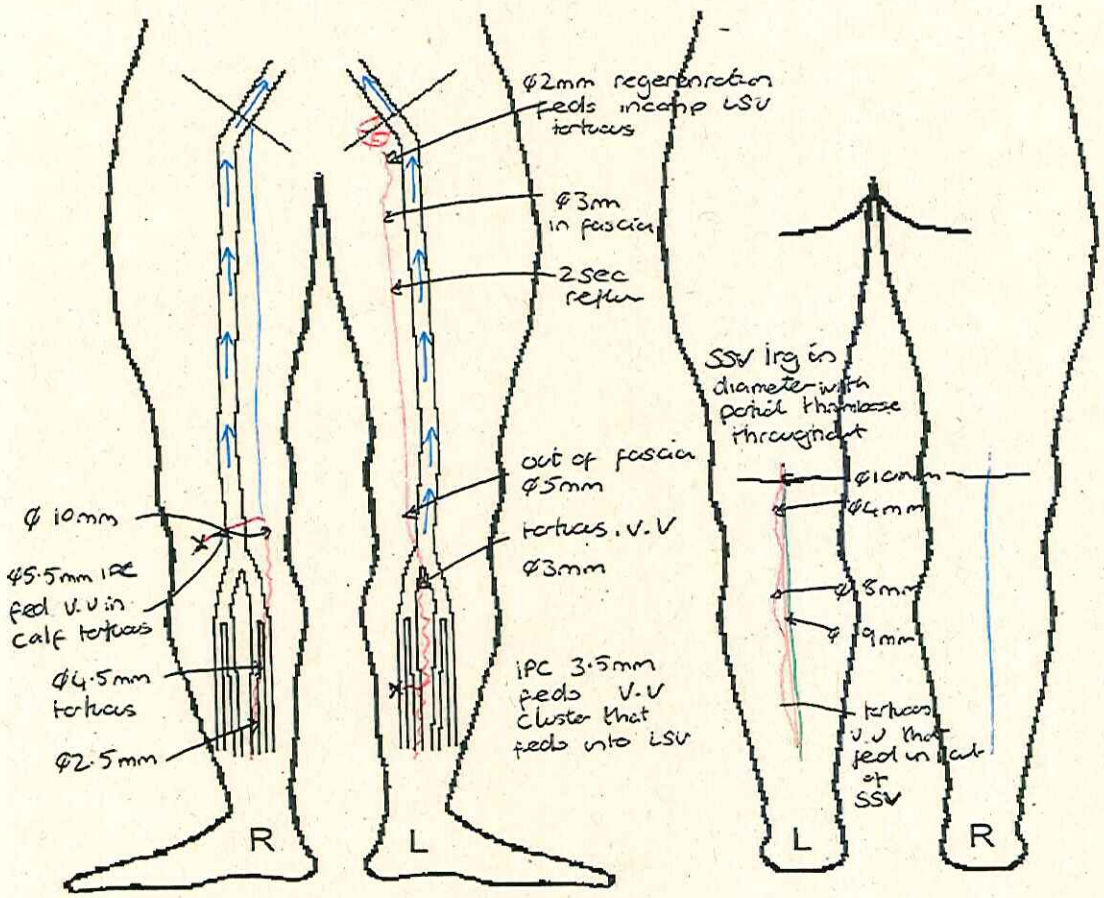
To: [redacted]
Consultant Vascular Surgeon
Ward 507 - ARI

Date: 19/11/2018

Patient: [redacted] **Hosp.No:** 1910311111 **D.O.B:** 19/10/1931

Date of Test:

Test: Bilateral venous



Right - Deep veins are patent and competent. SSV patent and competent. LSV - proximal - knee, the LSV comes out of the fascia and there is a very tortuous branch that runs down the inside of a calf which is fed by a IPC dia 5.5.
Left - Deep veins are patent and competent. LSV - Previous surgery that has regenerated and has refilled the LSV that is incompetent with 2 seconds reflux, the LSV comes out of the fascia at knee and becomes tortuous. there is also a cluster of vein caused by a IPC that fed into the LSV. SSV - Incompetent throughout with partial thrombose and there is a tortouous branch that feds in and out of the SSV throughout. Heather Lynn

The Vascular Laboratory - Ward 507
Aberdeen Royal Infirmary

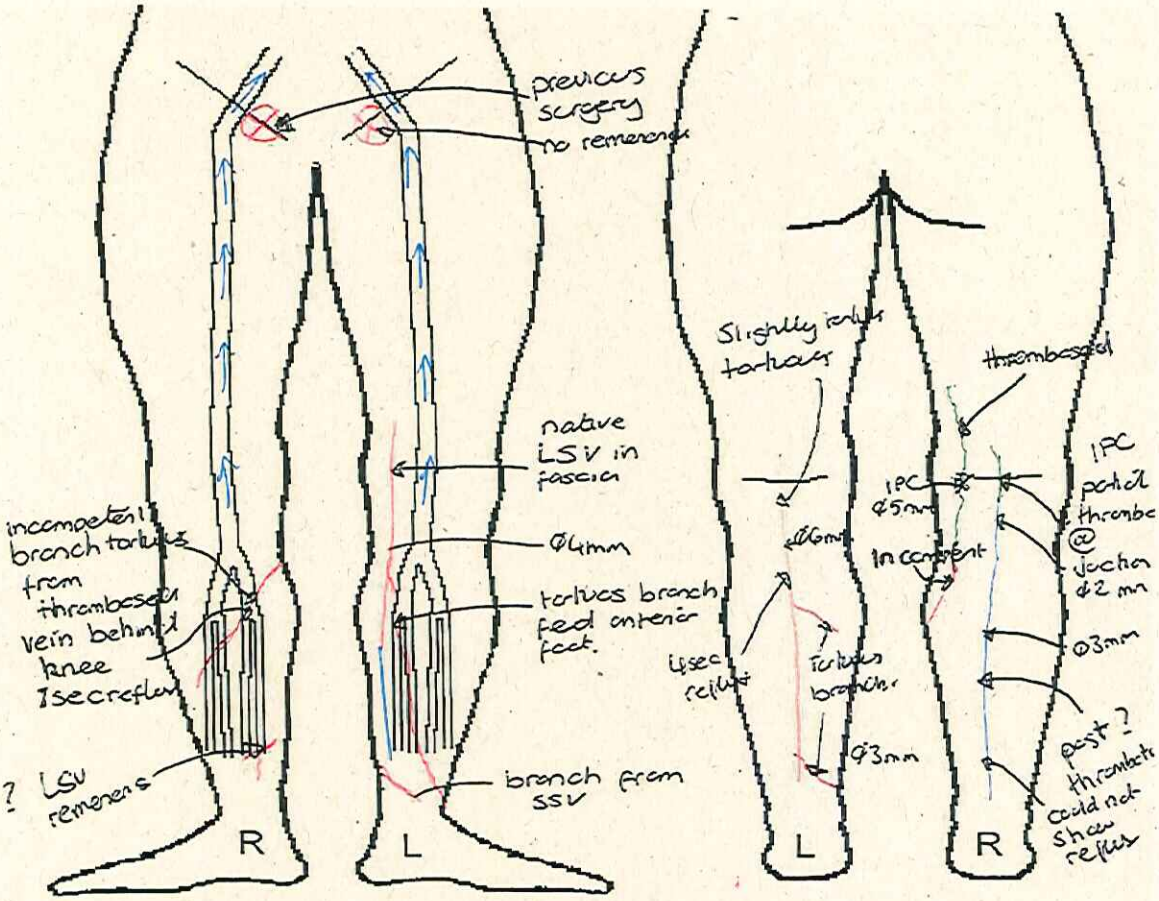
To: Mr
Consultant Vascular Surgeon
Ward 507 - ARI

Date: 20/11/2018

Patient: [redacted] **Hosp.No:** 1811546285 **D.O.B:** 18/11/1954

Date of Test:

Test: bilateral lower limb Venous



Right - Deep veins patent with no reflux noted. LSV - previous surgery no remnants noted. There is a thrombosed vein that runs from 2/3 posterior thigh laterally down and round towards the shine. proximal this vein is thrombosed and fed by a IPC (dia 5mm) behind the knee, distally the vein is tortuous with 1 sec reflux. There was a cluster of V.V noted at the ankle.
SSV - proximally partally thrombosed the vessel becomes patent at 1/4 calf and no reflux was noted howe the walls appeared thickened ?post thrombotic.
Left - Right - Deep veins patent with no reflux noted. LSV - previous surgery no remnants noted. The native LSV was seen in the fascia at 2/3 thigh and has ~2 seconds reflux, it feds a tortuous branch tha runs over the shine and distally becomes small in calibre (dia 2mm) and no reflux was shown. SSV - Incompenet throughout with 3 - 4 seconds reflux. the veseel was slightly tortuous and fed 2 x tortuou branches. Heather Lynn

The Vascular Laboratory - Ward 507
Aberdeen Royal Infirmary

To: Mr Sharp
Consultant Vascular Surgeon
Ward 507 - ARI

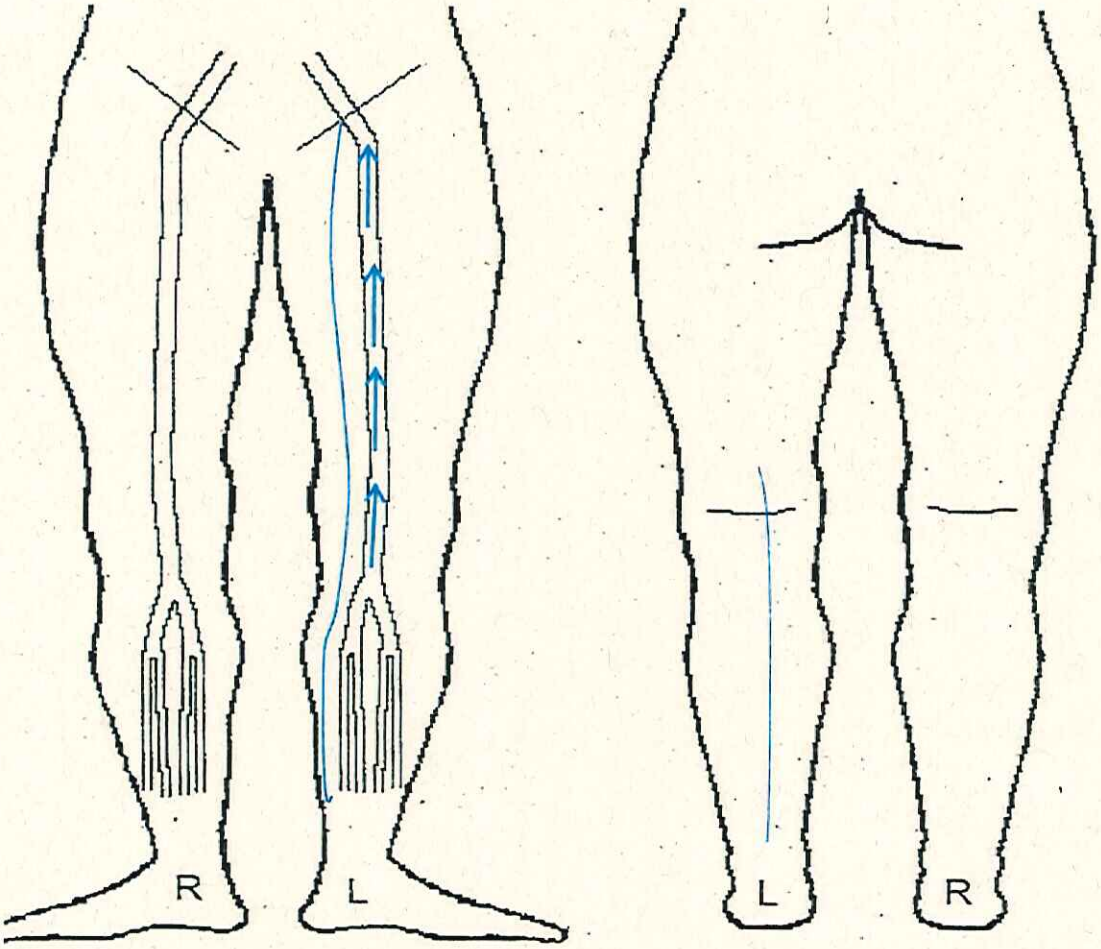
Date: 27/11/2018

Patient: [redacted]

Hosp.No: 1206492287 **D.O.B:** 12/06/1949

Date of Test:

Test: Venous



Left - Deep veins are competent with no significant reflux. There was some small tread veins noted however very small less than 0.5mm. SSV and LSV both competent. LSV origin to knee is suitable for bypass.

Heather Lynn

lynnhe 27/11/2018 11:03

lynnhe 30/01/2019 11:50

The Vascular Laboratory - Ward 507
Aberdeen Royal Infirmary

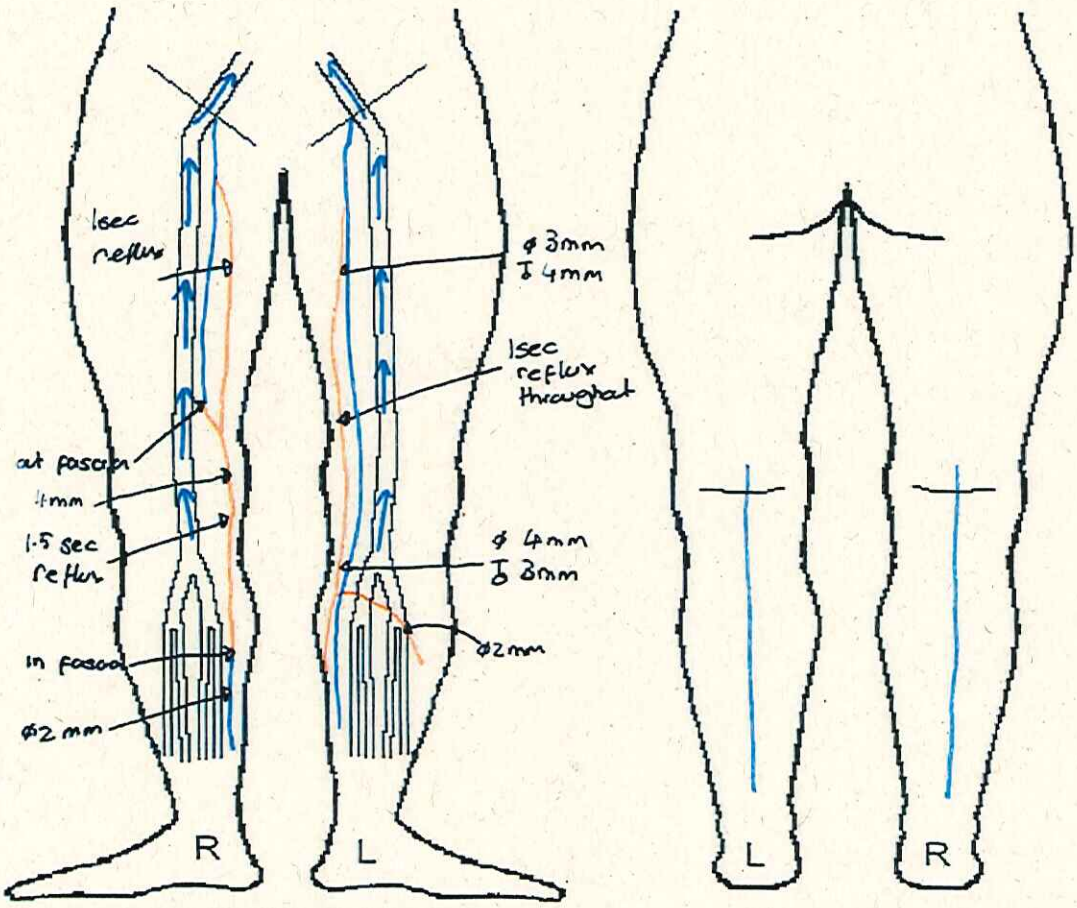
To: Mr [redacted]
Consultant Vascular Surgeon
Ward 507 - ARI

Date: 18/12/2019

Patient: [redacted] **Hosp.No:** 1909452246 **D.O.B:** 19/09/1945

Date of Test:

Test: Bilateral Venous duplex



Right - Deep veins are patent and no reflux shown however there were very pulsatile.
SSV - compenet and patent. LSV - (proximally pulsatile) prox to 2/3 thigh LSV is patent and competent, at this point it joins an incompentent LSV proximal branch and comes out of the fascia and there is small amount reflux shown ~1seconds, distally it returns to the fascia and no reflux shown.

Left - Deep veins are patent and competent and very pulsatile, LSV (proximally pulsatile) and SSV are competent and patent, there is however a incompetent branch (~1 second reflux) at 1/3 thigh which connects to a smaller branch feeding into the ulcer.
It was also noted that the LSV veins appears calcified. Heather Lynn

lynnhe 18/12/2018 12:39

lynnhe 30/01/2019 10:53

The Vascular Laboratory - Ward 507
Aberdeen Royal Infirmary

To: Mr [redacted] Wilson
Consultant Vascular Surgeon
Ward 507 - ARI

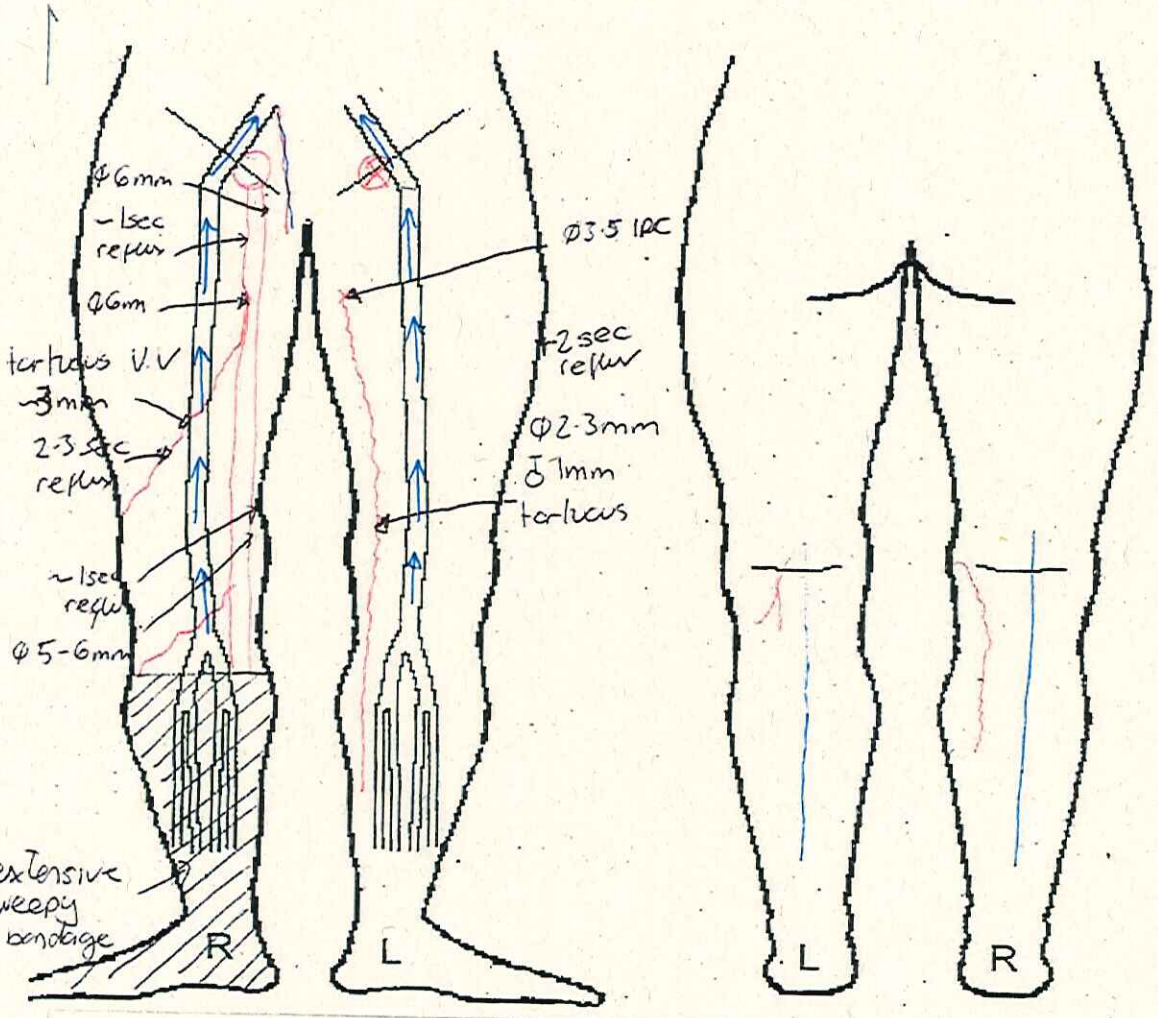
Date: 03/01/2019

Patient: [redacted] Louise Murdoch

Hosp.No: 611389061 D.O.B: 06/11/1938

Date of Test:

Test: Venous



Right - Deep veins patent and competent. LSV previous surgery with remnant of junction that feds into a superfical vein not in facial that is ~ 6mm in diameter and runs down the leg until the dressings. there is also a thigh vein that runs down the medial thigh and at 1/3 there is a tortuous superficial (~ 1mm below the skin surface) branch that has ~ 2 - 3 second reflux. the branch rund across the thigh and then around to the posterior calf. SSV competent and patent.
Left - Deep veins are patent and comepetent. LSV previous surgery with no remnant at the junction. There is a IPC at 1/3 medial thigh ~ dia 3.5mm this feds a 3mm tortuous vein that runs down the medial thighinto the calf. SSV - Patent and competent.
There was also many superficial small veins visual throughout both legs.
Heather Lynn

lynnhe 03/01/2019 16:14

lynnhe 30/01/2019 10:00

The Vascular Laboratory - Ward 507
Aberdeen Royal Infirmary

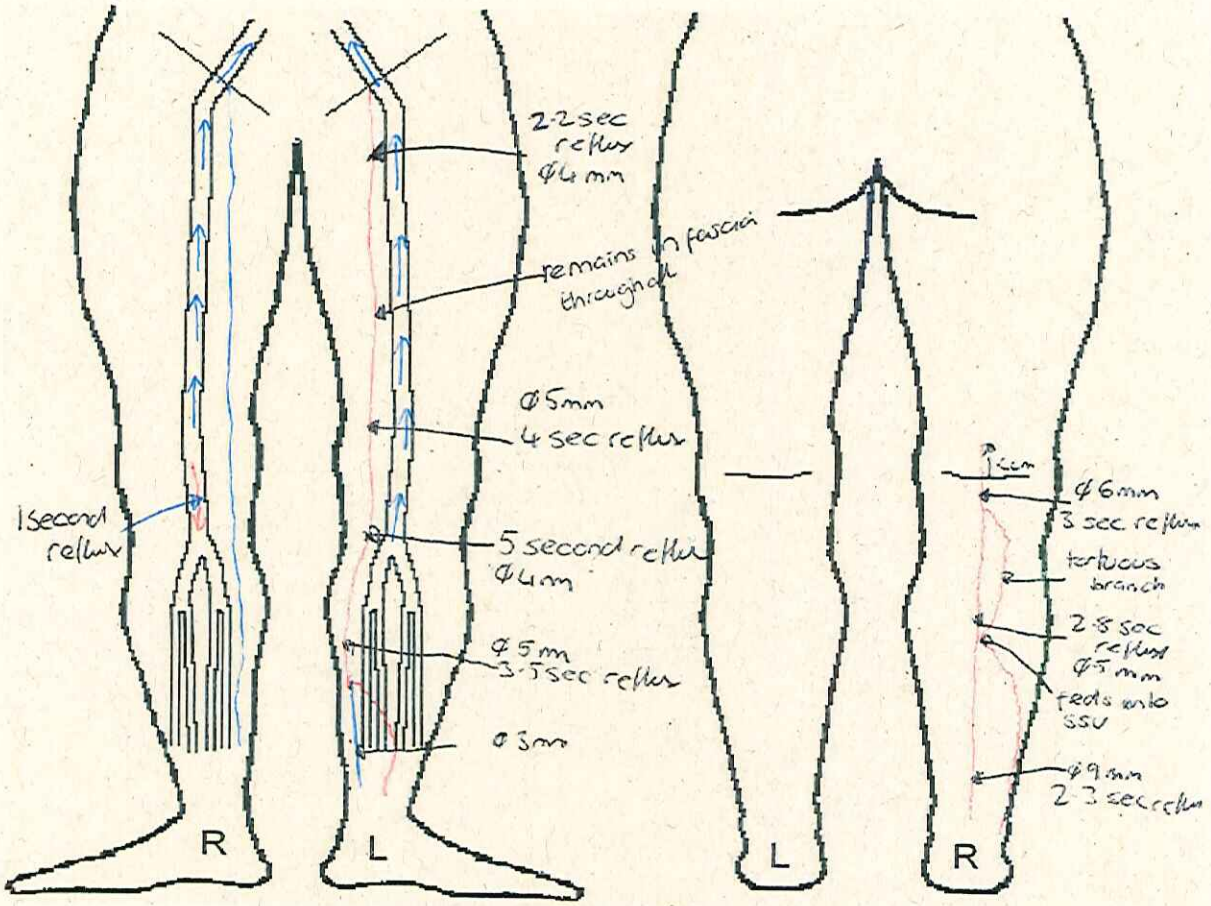
To: Mr [redacted]
Consultant Vascular Surgeon
Ward 215 - ARI

Date: 08/12/2018

Patient: [redacted] **Hosp.No:** 910539066 **D.O.B:** 09/10/1953

Date of Test:

Test: Duplex - BLLV



Right - Deep veins - There is 1 second of reflux seen in the popliteal superficial veins - LSV - competent and patent throughout. SSV - incompetent from the origin with a tortuous branch at 1/4 calf that feds in and out of the SSV at mid calf and then continous to the ankle.
Left - Deep veins - Patent and competent. Supefiscial veins LSV incompetent including the juction from the origin to 2/3 calf where it feds into a tortuous branch.
Heather Lynn

lynnho 30/01/2019 09:54

The Vascular Laboratory - Ward 507
Aberdeen Royal Infirmary

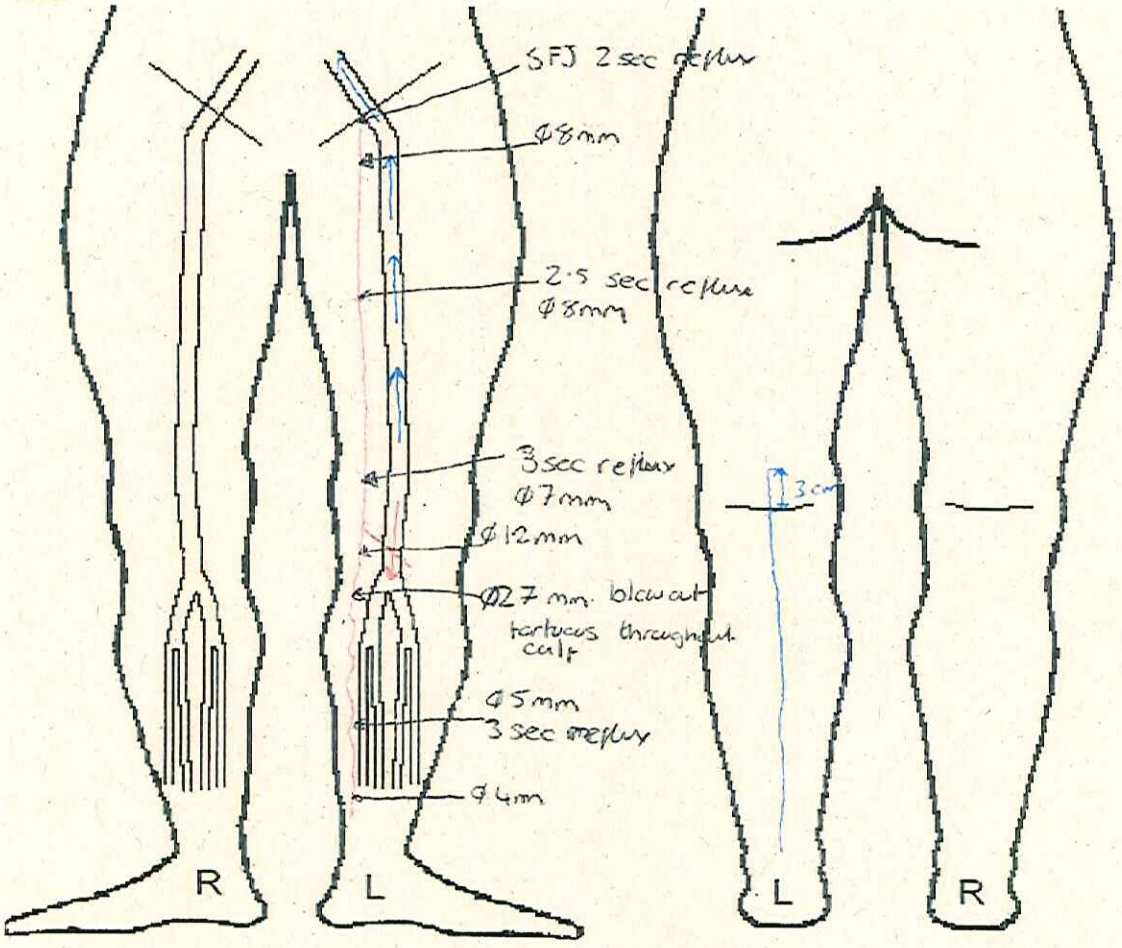
To: Mr [redacted] Sharp
Consultant Vascular Surgeon
Ward 215 - ARI

Date: 08/01/2018

Patient: [redacted] Sylvia Cowie **Hosp.No:** 1809599008 **D.O.B:** 18/09/1959

Date of Test: Duplex - LLLV

Test:



Left - The deep veins are patent with 1 second reflux seen in the popliteal vein.
Superficial veins - The LSV including the SFJ is incompetent throughout. it remains in the fascia until 2/3 thigh at this point it comes out of the fascia, there is a increase in diameter ~ 12mm and then just distal to this there is a large blow out dia 27mm the vessel then become tortuous down the calf.

Heather lynn

The Vascular Laboratory - Ward 507
Aberdeen Royal Infirmary

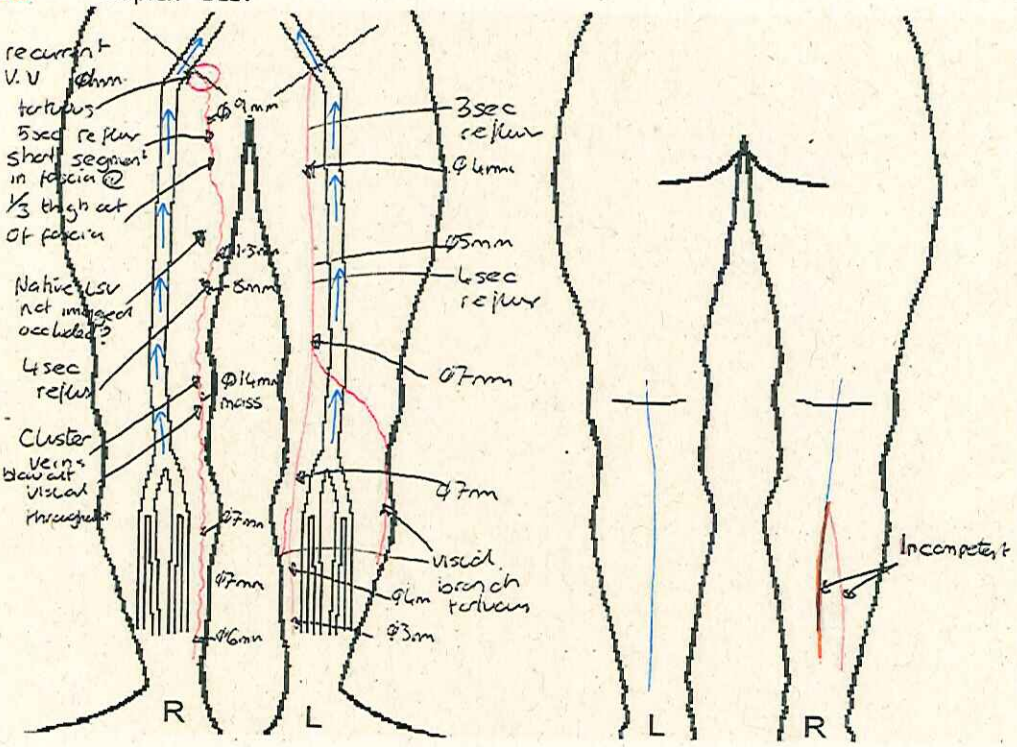
To: Mr [redacted]
Consultant Vascular Surgeon
Ward 215 - ARI

Date: 10/01/2019

Patient: [redacted] **Hosp.No:** 1612552013 **D.O.B:** 16/12/1955

Date of Test: 10/01/2019

Test: Duplex - BLLV



Right - The deep veins are patent and competent however it was noted that the veisn are pusatle. LSV - there is evidence of previous surgery with small (1mm) recurrent tortuous veins at the LSV origin fed by the SFJ juntion. which feds a short proximal segment of the LSV which remains in the fascia, at 1/3 thigh the LSV can no longer be imaged in the fascia at this point there is a tortuous branch that comes out of the fascia and runs down the medial aspect of the leg. The branch has a dia 7 - 14mm with a blow out tortuous mass at the knee which is visual. SSV - incompetent from 1/3 calf where the vein splits ~ 1 -2 seconds reflux.

Left - The deep veins are patent and competent. LSV - incompetent throughout including the SFJ with 4 seconds reflux and has a dia of 5 - 7mm uniform in shape. there is 2 tortuous branches the 1st which origin is just above the knee and the second which origin is from the mid calf.

SSV - patent and competent. Heather Lynn

The Vascular Laboratory - Ward 507
Aberdeen Royal Infirmary

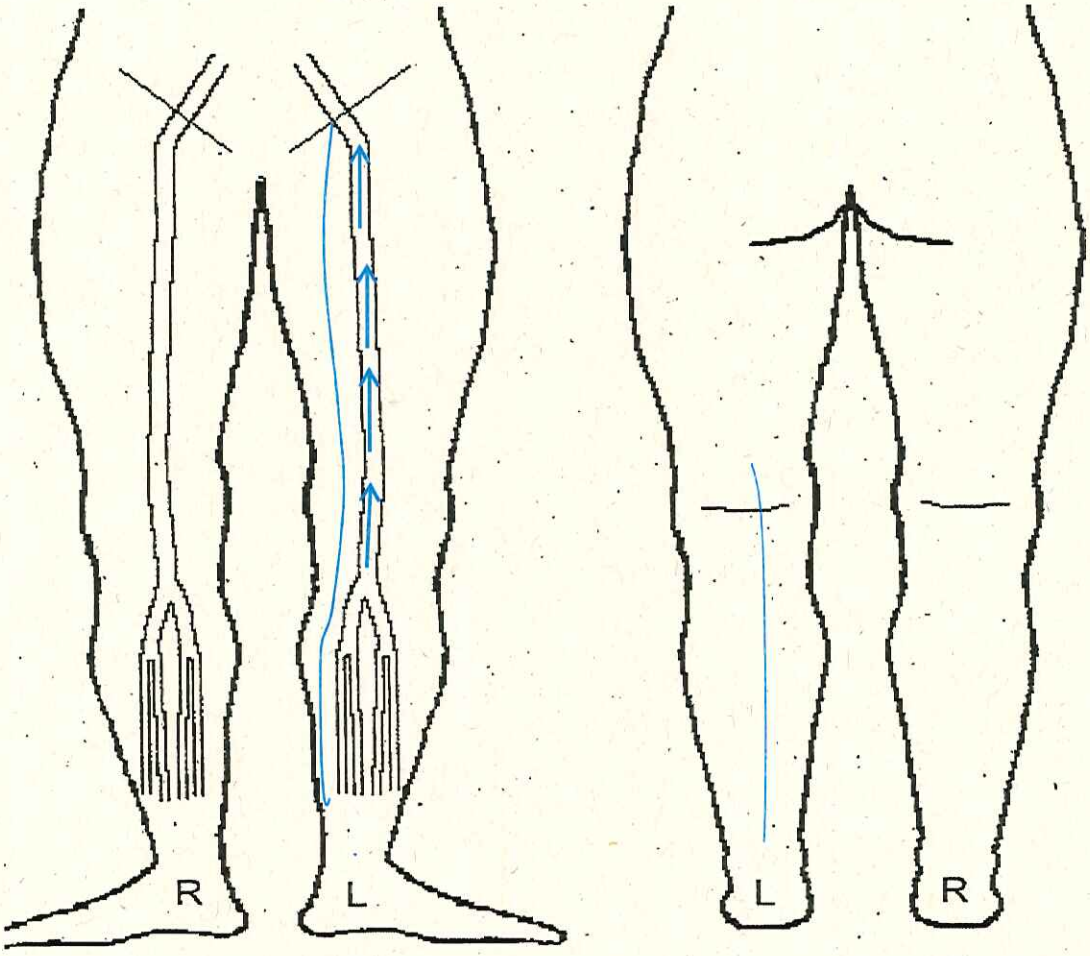
To: [redacted] Cooper
Consultant Vascular Surgeon
Ward 507 - ARI

Date: 10/01/2018

Patient: [redacted] **Hosp.No:** 1207662216 **D.O.B:** 12/07/1966

Date of Test:

Test: Duplex - LLLV



Left - Deep and Superfiscial veins are competent with no significant reflux.

Heather Lynn

The Vascular Laboratory - Ward 507
Aberdeen Royal Infirmary

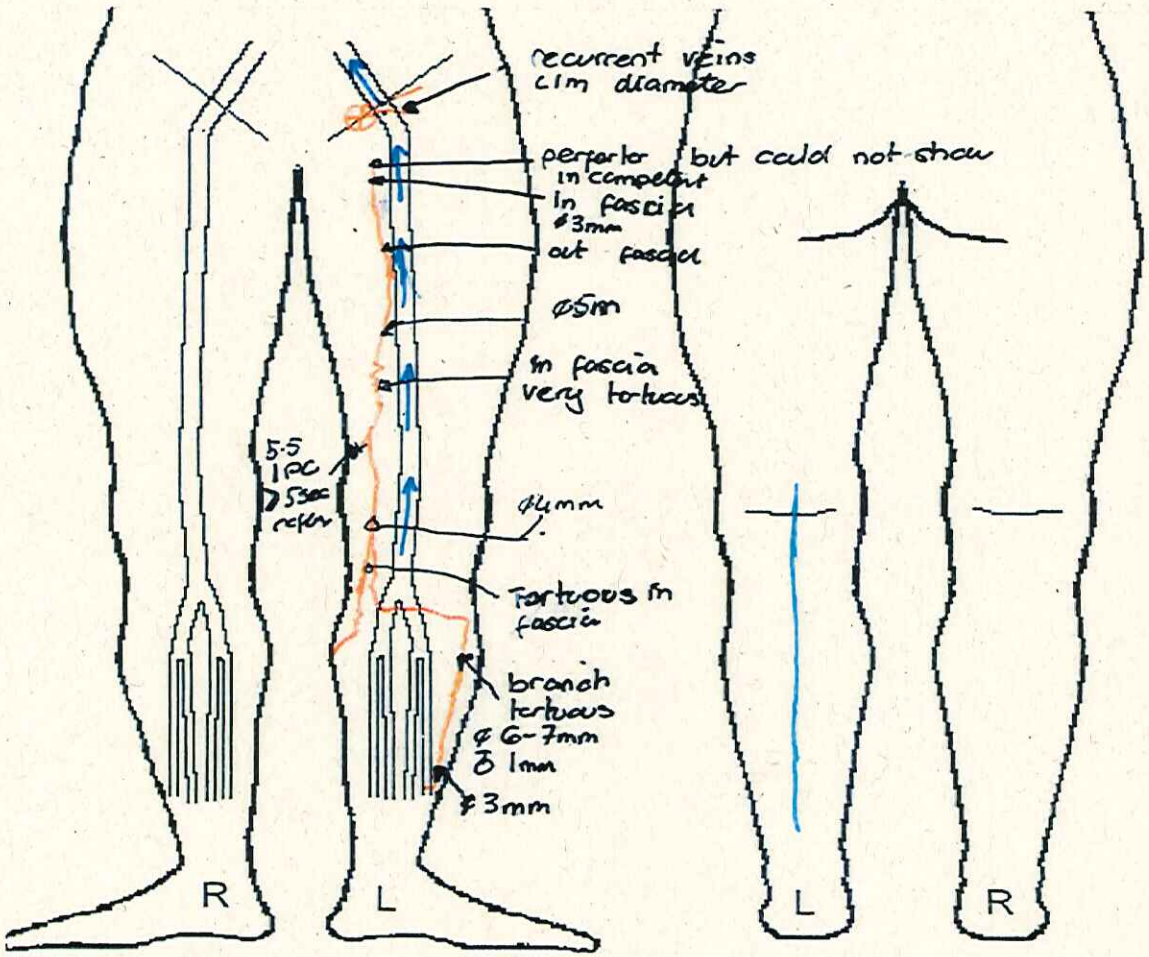
To: [redacted] Makris
Consultant Vascular Surgeon
Ward 507 - ARI

Date: 13/12/2018

Patient: [redacted] MacDonald **Hosp.No:** 410522007 **D.O.B:** 04/10/1952

Date of Test:

Test:



Left - Deep veins are patent with no reflux or obstructions. SSV are patent with no reflux or obstructions,
LSV has had previous surgery, There is a vein that is in the fascia at 1/4 thigh and is connected to a perfortor which I could not show incompetence, at 1/3 thigh the vein comes out of the fascia and returns to the fascia at mid thigh where it is very tortuous inside the fascia just distal to this there is an incompetent (> 6 seconds reflux)IPC dia 5.5mm. the vein comes out of teh fascia and feeds a tortuous V.V that comes across and down the shine.

lynnhe 13/12/2018 16:41

lynnhe 30/01/2019 11:36

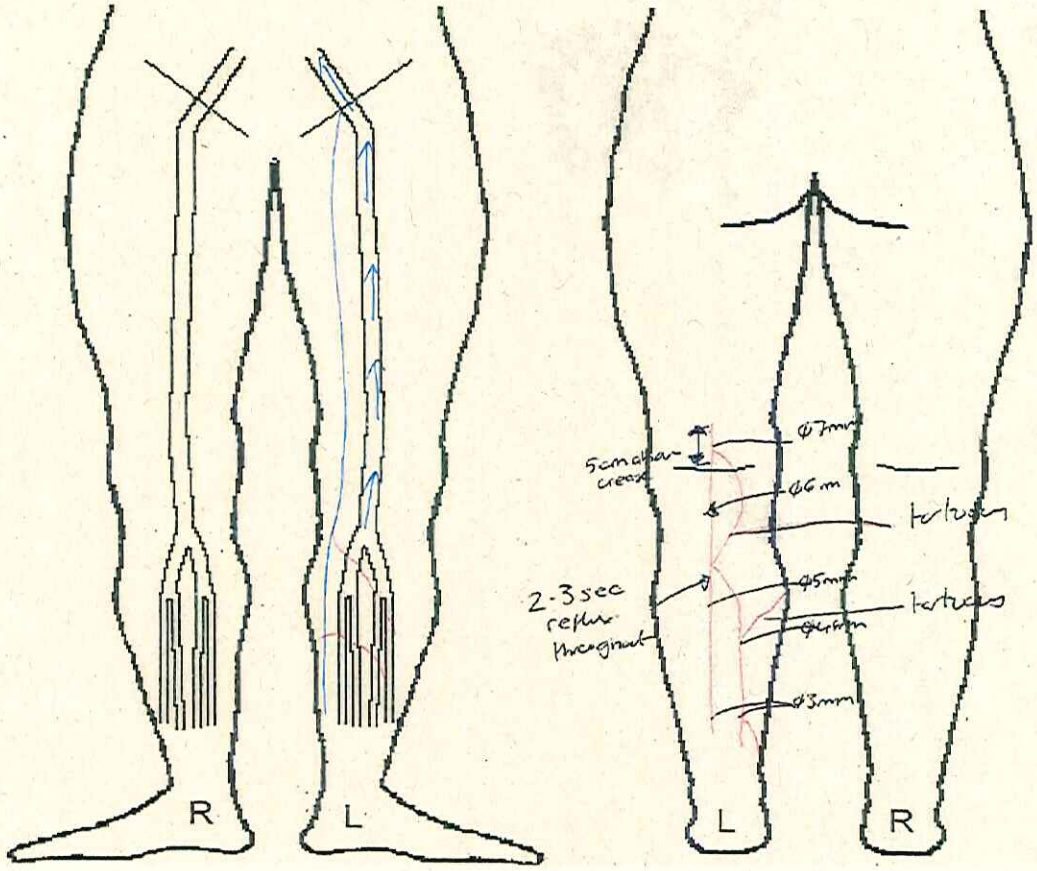
The Vascular Laboratory - Ward 507
Aberdeen Royal Infirmary

To: Mr [redacted] **Date:** 14/01/2019
Consultant Vascular Surgeon
Ward 215 - ARI

Patient: [redacted] **Hosp.No:** 1111492131 **D.O.B:** 11/11/1949

Date of Test: 14/01/2019

Test: Duplex - LLLV



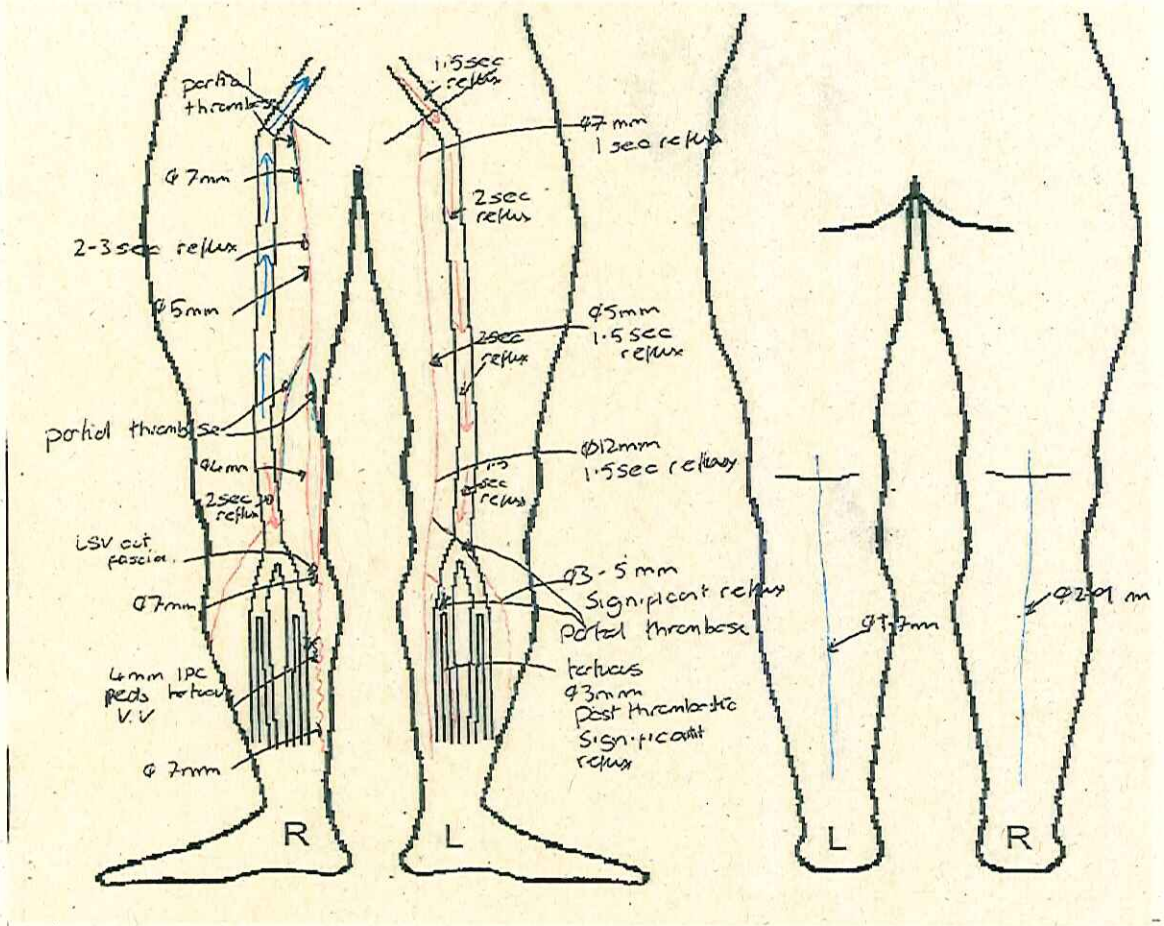
Left - Deep veins are patent and competeent. LSV - patent and competent. SSV is incompetent with 2 - 3 second reflux. it origin is 5cm above the crease and is uniform in shape until mid calf where is splits into two. There is a tortuous branch at the knee crease that feds back into the SSV at mid calf and there is two further branches in the mid to distal calf

Heather Lynn

The Vascular Laboratory - Ward 507
Aberdeen Royal Infirmary

To: Mr [redacted] **Date:** 16/01/2019
Consultant Vascular Surgeon
Ward 215 - ARI

Patient: [redacted] **Hosp.No:** 905412257 **D.O.B:** 09/05/1941



Right - Deep vein, CFV and SFV are patent and competent. popliteal is patene with 2 seconds reflux. LSV - proximally there is partial thrombose (post thrombotic). the vessel is incompetent throughout, it comes out of the fascia at distal thigh and then becomes very tortuous. There are also 2 incomepete tortuous branches. 1st at mid thigh and runs across the thigh and down the shin. 2nd is at 2/3 thigh and runs down the medial thigh and then reconnects with the LSV at the diistal thigh. There is also a dia 4mm IPC at mid calf which feds into the tortuous lsv in teh calf. SSV - patent and competent.

Left - Deep veins are incompetenet and patent with 1.5 - 2 seconds reflux throughout. LSV patent and incompetent throughout with 1 - 1.5 seconds reflux prox - mid and then becomes more significant distally (2 -3 seconds). there is also 2 tortuous branches in the calf and run towards the shin. both have post thrombotic areas. SSV - competent and patent . Heather lynn

The Vascular Laboratory - Ward 507
Aberdeen Royal Infirmary

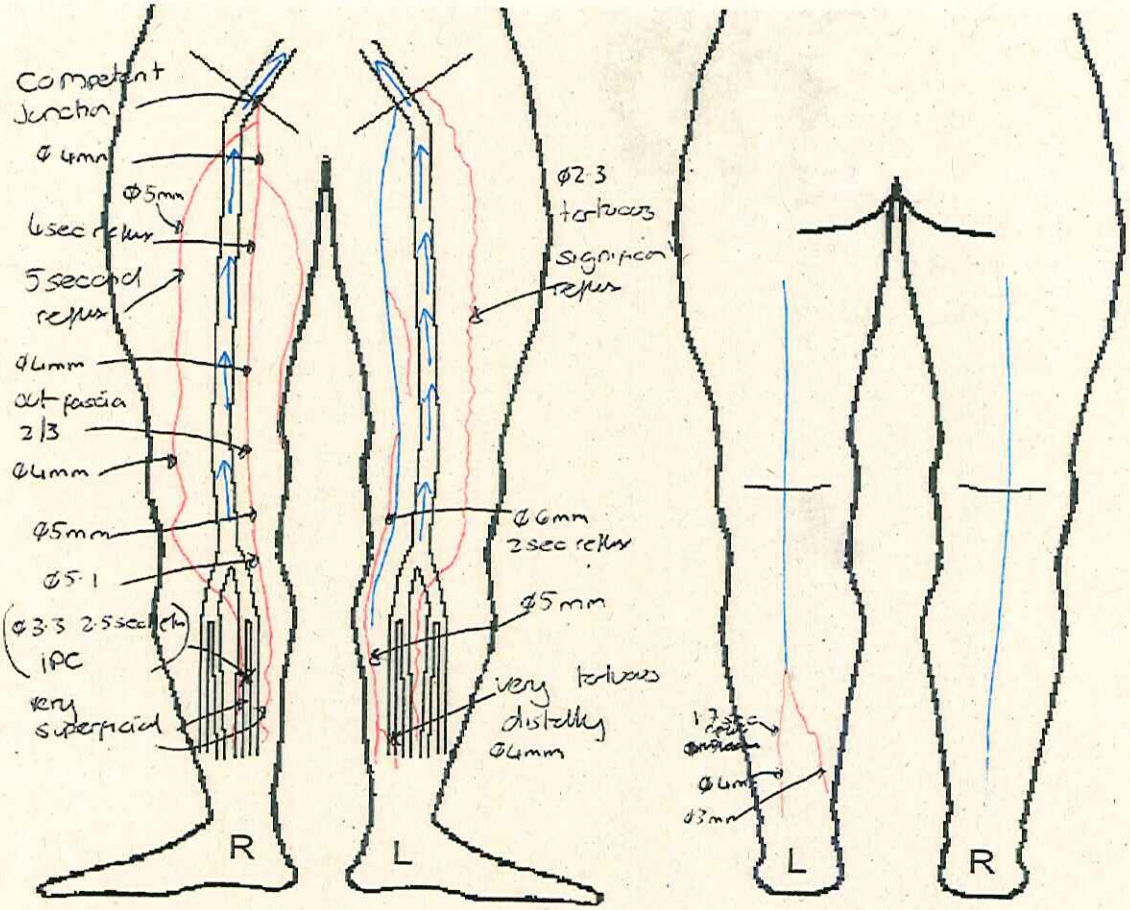
To: Mr [redacted] Haider
Consultant Vascular Surgeon
Ward 215 - ARI

Date: 28/01/2018

Patient: [redacted] Barry Taylor **Hosp.No:** 1408672118 **D.O.B:** 14/08/1981

Date of Test:

Test: 14/08/2018



Right - The deep system is patent and competent. The LSV competent at juction. Distally to the juction it is incompetent with 4 - 5 second reflux throughout with a uniform diameter of ~ 4 - 5mm until distally where it becomes tortuous. there is also two branches both with significant reflux. The first comes off at 1/4 thigh and runs down the medial thigh and then becomes lateral just distal to the knee, at 2/3 thigh there is a incompetent IPC which feds into this branch. The second branch comes 1/3 thigh and runs lateral thigh. The SSV competent in the proximal - mid calf at mid calf the SSV branches off and becomes incompetent with 1.7 second reflux.

left - The deep system is patent and competent. LSV competent throughout. with two incompetent branches the first comes of at 1/3 thigh and the secomes branches of at distal thigh which becomes very tortuous distally. There is a tortuous lateral thigh branch with significant reflux throughout. The SSV is competent throughout. Heaher Lynn

The Vascular Laboratory - Ward 507
Aberdeen Royal Infirmary

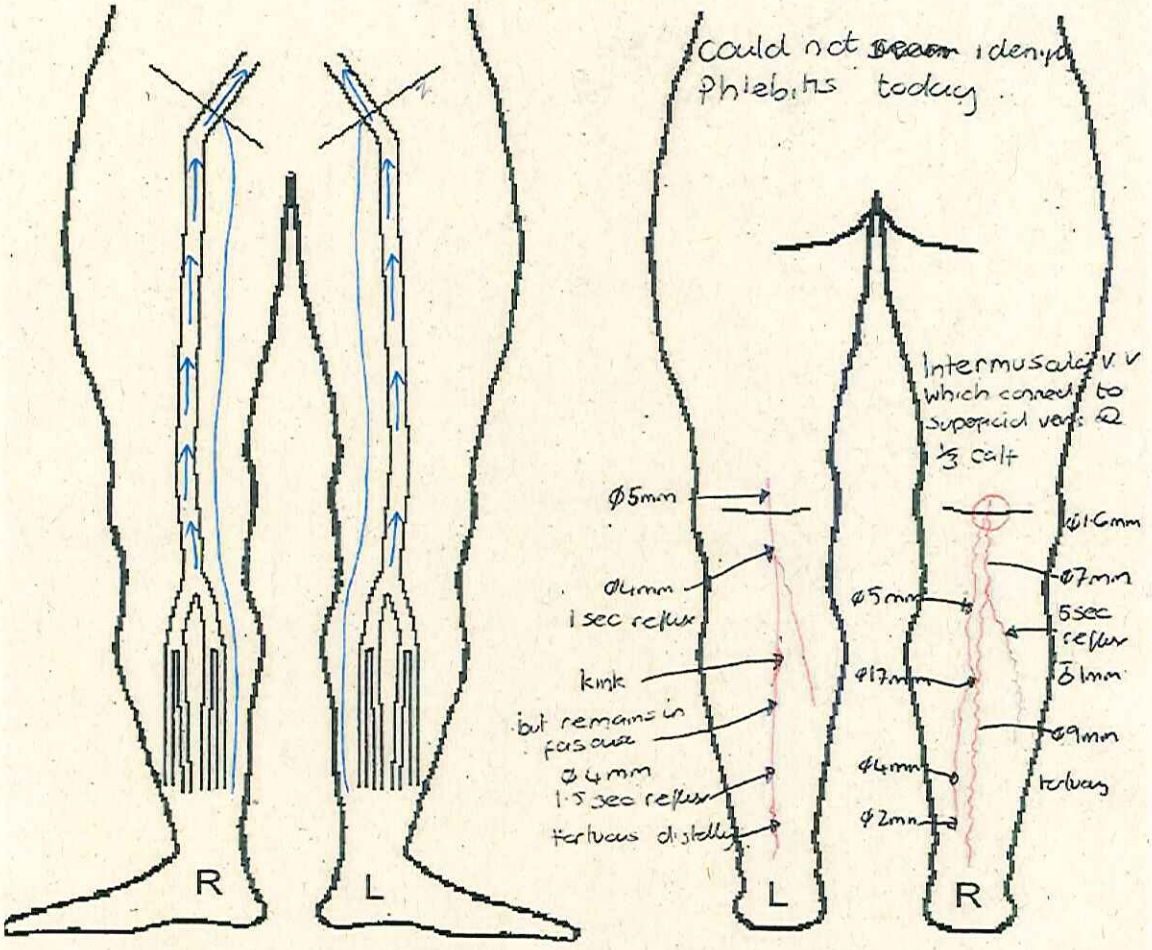
To: [redacted] Cooper
Consultant Vascular Surgeon
Ward 215 - ARI

Date: 31/01/2018

Patient: [redacted] Margaret Roberts **Hosp.No:** 2402522240 **D.O.B:** 24/02/1952

Date of Test: Duplex - BLLV

Test:



Right - The deep and superfiscial veins are patent and competent. SSV - previous surgery noted at the SPJ. There are 2 recurrent varicose veins that run down the back of the calf. The first is tortuous, have significant reflux (5 seconds) and have a max diameter of between 7 - 16mm. this has a branch that is very superficial at 1/3 calf. The second has an origin near the SPJ and runs down in the gastrocnemius muscle it is tortuous has a dia 2 - and 5mm however there is a 17mm blow out at mid calf.
Left - The deep and superfiscial veins are patent and competent. SSV incompetent throughout, remains in fascia and uniform in shape until 3/4 calf where it becomes tortuous. there was 1 - 1.5 seconds reflux and dia 4mm. There is also a incompetent branch at 1/3 calf. heather Lynn

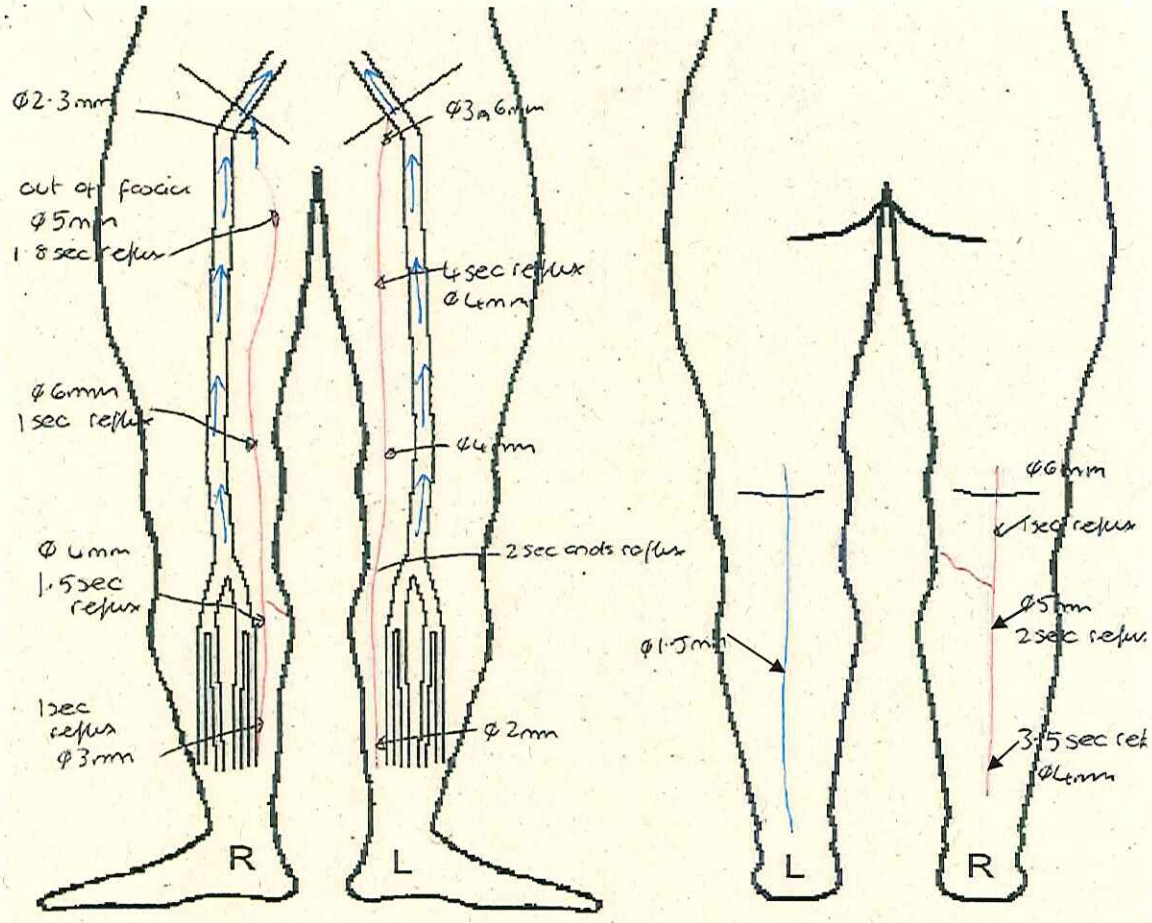
The Vascular Laboratory - Ward 507
Aberdeen Royal Infirmary

To: Mr [redacted] **Date:** 11/02/2018
Consultant Vascular Surgeon
Ward 215 - ARI

Patient: [redacted] **Hosp.No:** 2901885543 **D.O.B:** 29/01/1988

Date of Test:

Test: Duplex - BLLV



Left - Deep vein are competent and patent, LSV is competent proximally and then at 1/4 comes out of the fascia and becomes incompetent. It is uniform in shape and returns to the fascia for a short segment at distal thigh. SSV is incompetent throughout, it is unifrom in shape and theer is an incompetent connection branch to the LSV at 1/4 calf.
Left - - Deep vein are competent and patent, LSV is in the fascia and is uniform in shape, it also becomes small distally. SSV is competent and patent

The Vascular Laboratory - Ward 507
Aberdeen Royal Infirmary

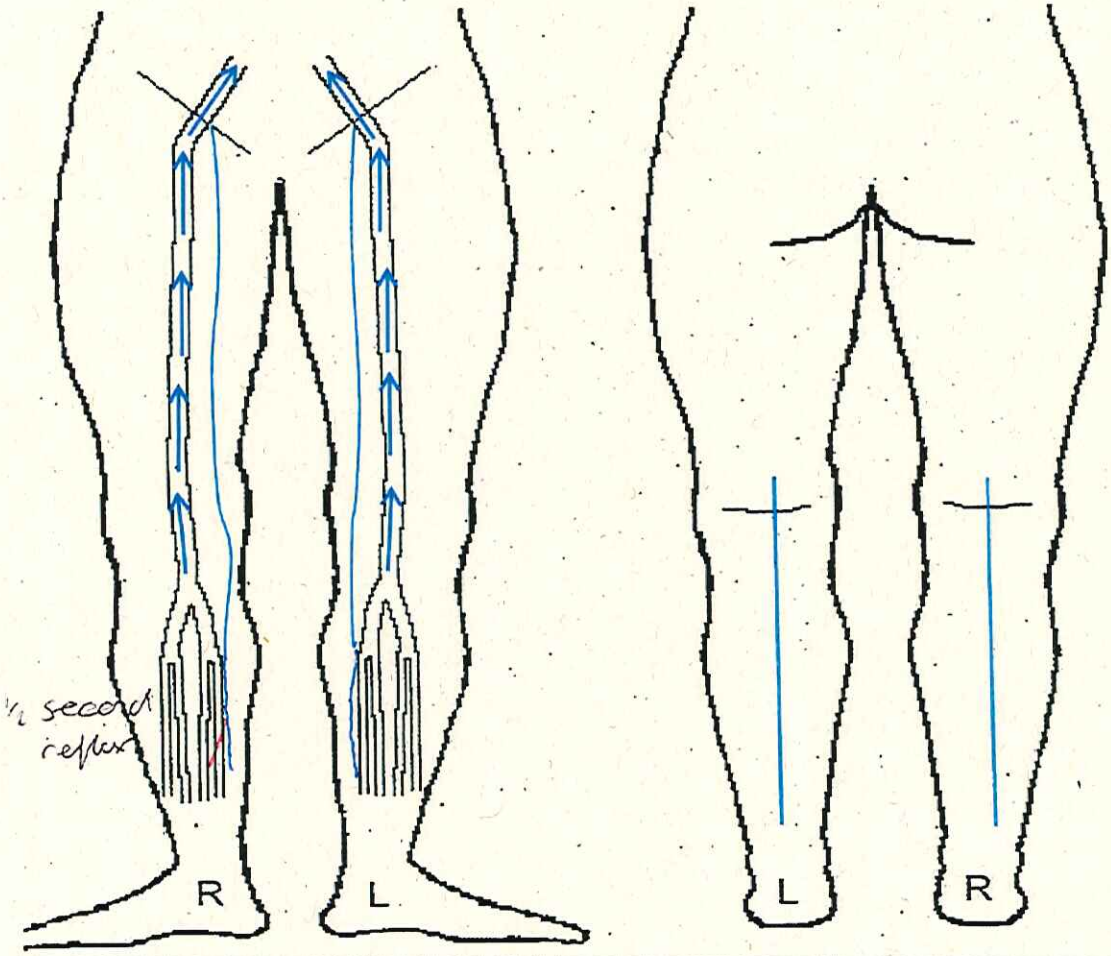
To: [redacted] Munro
Consultant Vascular Surgeon
Ward 507 - ARI

Date: 06/02/2019

Patient: [redacted] David West **Hosp.No:** 1404612254 **D.O.B:** 14/04/1961

Date of Test:

Test: Bilateral lower limb venous



Bilaterial lower limb venous duplex - On the right the deep and superficial veins are competent and triphaisc waveform seen at the ankle in the PTA and DPA. On the left the deep and superficial veins are competent and triphaisc waveform seen at the ankle in the PTA and DPA.

lynnhe 06/02/2019 11:04

lynnhe 12/02/2019 12:15