



Newsletter

The Society for Vascular Technology of Great Britain & Ireland

Issue 90. Autumn 2015

In this issue

The scientist training programme four years on....	5
IQIPS Key Messages	9
Bubbles	11
CPD update	13



Welcome to the Autumn 2015 edition of the SVT Newsletter...

As always I would like to extend thanks to all contributors who sent in articles for this season's issue.

This edition features last minute updates and reminders for the Annual Scientific Meeting, information on the new CPD system and a great cryptic crossword from the new 2016 physics exam officer, Caroline Dainty (Caroline has promised chocolates to the first member to send in a completed copy to newsletter@svtgbi.org.uk).

Remember the Newsletter is continually looking for original contributions, so please email me any case studies, reviews, your experiences or any comments that you think would be of interest to members of the society. I would also welcome any comments on articles published in this edition. For the next edition it would be great for members who are unable to attend the ASM and VS meetings this year if those

who do could send in comments and reviews of the talks and/or workshops.

As always a £25 prize is offered to the individual chosen for sending in the article or letter of the month. The prize this issue is awarded to Toni Cooper.

The next Newsletter will be the Winter Issue, and the closing date for receiving articles will be 8th January 2016.

Hope those of you able to attend are looking forward to the ASM, don't forget the drinks reception on Wednesday evening from 7.30pm at Aruba Bar and Restaurant on Bournemouth Pier!

Helen Dixon
Newsletter Editor
Email: newsletter@svtgbi.org.uk

Dates for the diary 2015/16

SVT ASM, Bournemouth International Centre
12th November

VS ASM, Bournemouth International Centre
11th-13th November

BMUS ASM
The City Hall, Cardiff
9th-11th December

SVT Fundamentals Study Days, Addenbrooke's Hospital, Cambridge
28th-29th January 2016

President: Tanyah Ewen • **Vice President:** Tracey Gall • **Past President:** Vicky Davis • **Membership Secretary:** Sara Causley
Conference Secretary: Dominic Foy • **Treasurer:** Georgie Fenwick • **Newsletter Editor:** Helen Dixon • **Web Site Manager/**
Job Adverts: Jacqui George • **SVT Website:** www.svtgbi.org.uk • **SVT email:** office@svtgbi.org.uk



SVT 24th Annual Scientific Meeting

**Bournemouth International Centre
Thursday 12th November 2015**

Please go to:

www.vascularsociety.org.uk/events/asm/

for further information and to book your place.

**Please note 'Early Bird' registration is available until the 4th
November after which a higher rate will apply**

The Vascular Societies
Annual Scientific Meeting 2015

*in conjunction with the Vascular Society of Great Britain and Ireland, the Society of
Vascular Nurses, and the Society for Vascular Technology of Great Britain and Ireland.*



11 – 13 November 2015
Bournemouth International Centre

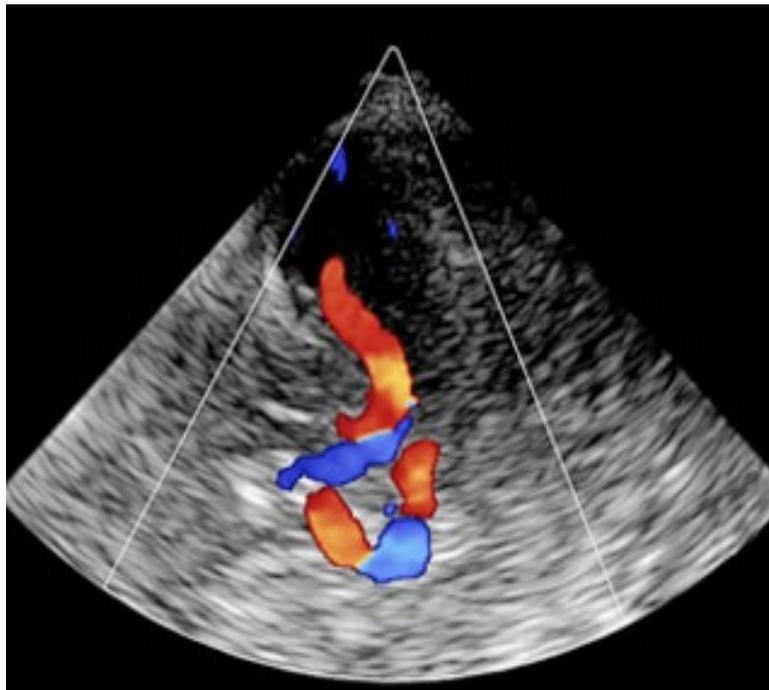
2015 SVT Workshop Bournemouth

Wednesday 12th November

1.00pm to 5.00pm

Bournemouth International Centre

Transcranial Doppler and Temporal Arteritis



50 places are available for SVT members and surgeons to attend this study day presented by experienced Clinical Vascular Scientists and other experts in the field.

Lectures will be supplemented by hands on sessions on **Philips** Duplex scanners **Doppler BoxX** pulsed Doppler (non-imaging) machines.

Book places when registering for the SVT main meeting.

SVT ASM DRINKS RECEPTION

Aruba Bar and Restaurant, Bournemouth Pier

We hope as many SVT members as possible can join us for a welcome drink and snacks on Wednesday November 11th from 7.30 to 9.00pm prior to the 2015 SVT ASM the following day. The restaurant will be serving food if you wish to stay after for a meal.



Aruba is a funky bar and restaurant situated on the 1st floor of the building at the land end of Bournemouth Pier with great atmosphere and good food.



Please come and join us and get in the mood for an enjoyable conference by catching up with colleagues and friends from around the UK and Ireland

More info from Dom Foy Conference Secretary

Dominic.foy@rbch.nhs.uk

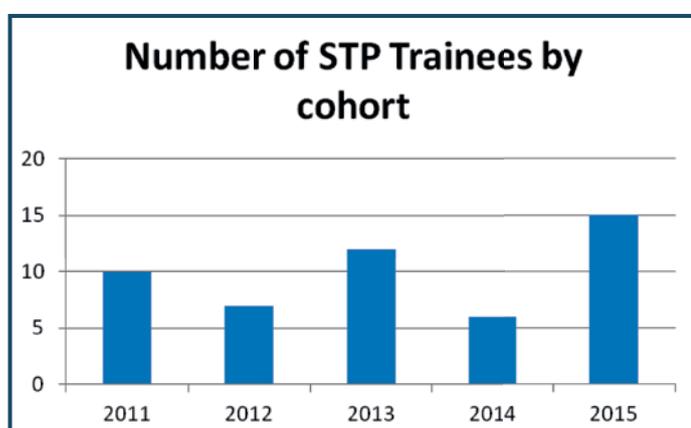
Photos borrowed from Tripadvisor with thanks

The Scientist Training Programme four years on...

Theresa Fail, Profession Lead, NSHCS and Clinical Scientist, Vascular Studies Unit, Salisbury NHS Trust

We are now entering the fifth year of STP training with the new cohort of vascular trainees starting in departments across the UK. The first 2 cohorts have now completed the programme and they all seem to have been successful in gaining employment. So four years on seems a good time to look back and reflect and also consider what the future might hold.

In the 2015 intake we have 15 trainees including our first vascular STP in Scotland. In total there have been 51 vascular STP trainees. The numbers across cohorts have fluctuated, as shown below, with the new intake being the largest yet.



This year we have a number of departments taking on trainees for the first time. Looking at the numbers of vacancies and the difficulties departments are having in filling them, it is clear we need to increase the number of trainees. Some departments have been using the in service STP training route which allows a department to apply for funding to support an existing member of their department through STP. The first in service vascular trainee has just completed their training and this is an option that other departments may wish to consider. You can find more information about this in the recruitment section on the National School of Healthcare Science (NSHCS) website. The commissioning and recruitment cycle for both direct entry and in service trainees starts early in the summer of the year before training begins. Plans for 2016 are well under way and so if you are considering taking an STP trainee next year you should contact your Local Education and Training Board (LETB) healthcare science lead as soon as possible. Their contact details can be found at:

www.nshcs.org.uk/for-training-officers/useful-information-for-training-officers/24-useful-information-for-training-officers

Your LETB will expect you to be able to demonstrate that you can deliver all elements of the training to the required standard and that you have support from other departments for the 3 month rotations in cardiac science,

respiratory and sleep science and clinical assessment and investigation. You will also now be expected to have work based training accreditation with the NSHCS. This may all sound daunting but there should be support in both your Trust and LETB and from other departments who have already taken trainees. Initially the NSHCS accreditation process involves completing a self-assessment form which can be found on the NSHCS website.

The first few years have been challenging for departments and trainees with rotations in other departments to organise and new assessment tools to become familiar with. The trainees themselves have been great ambassadors for the programme and have worked with their departments, the NSHCS and the universities in Manchester and Newcastle, who provide the academic masters component, to give feedback to help develop the programme. The SVT has been working with the NSHCS to develop exam stations for the final assessment exams, the OSFA (Objective Structured Final Assessments), and to develop a pool of trained assessors for these exams. Alison Charig is the SVT representative on the Cardiovascular and Respiratory and Sleep Science themed board at the NSHCS. This meets three times a year and gives the professional body the opportunity to feedback and discuss any issues relating to the training programmes and to influence and input to future developments. Felicity Woodgate, a vascular STP in Oxford, is also a current themed board trainee representative.

The programme produces state registered Clinical Scientists in vascular science who have a broad base in healthcare science and the cardiovascular, respiratory and sleep sciences as well as research and professional practice skills. It's been great to see so many exciting new research projects going on in departments across the country. Research is an area of work that has decreased as the pressures of clinical workloads has grown. The STP is helping departments to move back into research as we develop a workforce with the skills to take this on. This seems to be one of the real positive benefits of STP.

However, some departments have questioned whether everyone in the workforce needs all of the broader skills gained from STP, and so whether all trainees should follow the STP route. There is an option to train staff using the specialist vascular academic and work base modules of STP using the Accredited Specialist Practice (ASP) pathway in Modernising Scientific Careers (MSC). These routes are just starting to be used across healthcare science. The SVT and departments may wish to explore this route to develop their workforce. ASP provides focused, quality assured and accredited training. Programmes can be developed to meet workforce needs identified by the professional body, service and the LETBs, but they must fit within the MSC framework. Recognising that a significant part of the vascular workforce comes from sonographers, usually from a radiography background, it would also be helpful

to look at how they might access any vascular ASP programmes that might be developed. The majority of healthcare science specialisms developed undergraduate practitioner training programmes (PTP) as part of MSC. For vascular, training has always been at postgraduate level. In order to develop the future workforce, the SVT may want to look at opportunities for training within the MSC framework at practitioner level where work such as AAA screening could be included.

The majority of STP trainees are also working towards SVT accreditation and take the theory exams during their STP training. The vascular component of the STP academic curriculum maps to the SVT accreditation syllabus and so many trainees ask why they need to be formally assessed on the same topics twice and ask how this could be streamlined. So this is something for future consideration. Additional scanning modalities are required for the SVT practical exams that aren't currently in the STP work based training. However, most STP trainees already seem to cover these during their STP training. The STP curriculum will be reviewed in the near future and feedback will be taken from as many stakeholders as possible including the SVT, services, the universities and trainees. This will provide an opportunity to

review whether the content does meet workforce needs and whether there are any elements that need to be added, removed or amended.

Higher Specialist Scientific Training (HSST) is a five year doctoral level programme for Clinical Scientists leading to eligibility to apply for Consultant Clinical Scientist status. The second cohort of HSST scientists are just starting. A vascular HSST programme is available and we have had many enquiries from people wishing to do it, but as yet no places have been commissioned. Training places are supported and commissioned in the same way as STP, so if you would like to know more about this, there is detailed information on NSHCS website. The HSST programme has a number of specialist vascular modules as well as modules on leadership and innovation. As with STP, HSST is an integrated academic and work base programme. HSST modules also have the potential to be used as standalone ASP programmes, so for example you might want to take the fistula access module which would give both the academic underpinning knowledge as well as the work base training. This would allow staff to access further accredited and recognised specialist training in areas that their labs provide or perhaps are being asked to provide for the first time.

Vascular labs are continuing to experience increasing workloads and workforce shortages. Some labs are already providing 7 day services and extended working days. It is now inevitable that we will all be required to do so in the future and this will put further demands on the workforce. Some senior and very experienced staff are retiring or approaching retirement age. So it's clear we need to urgently grow and develop the workforce. MSC and STP are now established and provide funded and quality assured training with completing trainees being in great demand. So we need more departments to engage and look at how this training route fits with their workforce needs and plans. But we also need to look at all the other opportunities that the MSC framework provides by exploring options to develop the workforce through the undergraduate, specialist and doctoral level training programmes of PTP, ASP and HSST. This would broaden the career framework in vascular science giving staff recognised and accredited training and development opportunities throughout their careers. We have and are bringing in fantastic scientists into our labs and we need to ensure we keep them by allowing them to develop. This can now happen, but we need to engage with and use these opportunities.

Cardiology Pre-op Carotid Audit, 2012 & 2013

Toni Cooper (PhD, AVS), Central Manchester University Hospitals



A sample of 60 pre-op cardiology patients (Male and Female) were taken from May-December in 2012 (n=28) and 2013 (n=32) to determine the effect of the introduction of a new referral criteria on the workload of the Vascular Lab.

Old Referral Criteria	New Referral Criteria
Bruit	Bruit
History of TIA/CVA	History of TIA/CVA
	3 Vessel Disease
	Aortic Stenosis (AS)
	History of PVD

All patients were listed for coronary artery bypass grafts (CABG) and met the suitable criteria for a pre-op extracranial carotid artery duplex assessment. Inconclusive scans were excluded from the audit.

All Doppler ultrasound assessments assessed bilateral common (CCA)/bifurcation, internal (ICA) and external (ECA) Carotid Arteries as well as vertebral and subclavian arteries.

The presence of carotid disease in the CCA/BIF, ICA and ECA was documented and graded in accordance with both NASCET and St Marys Ratio. The symptoms of the patient were also documented and compared.

Results

There has been a slight increase in the number of scans performed after the introduction of the new referral criteria in 2013 (n=32) compared to 2012 (n=28).

A comparison of pre-op carotid scans was made between 2012 and 2013. Results are shown according to site and severity (absolute values):

There has been an increase in the number of patients with minimal CCA/BIF disease (<40%) from 2012 to 2013, however this was not significant (P>0.05).

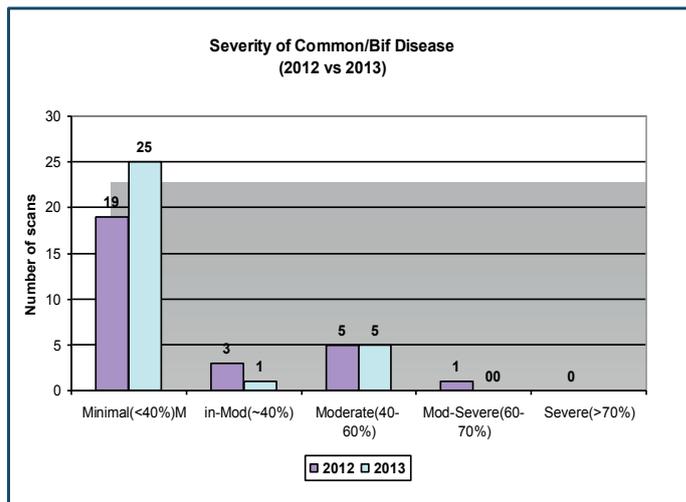


Figure 1. Severity of disease in the CCA/CCA Bifurcation

There has been an increase in the number of patients with minimal ICA disease (<40%) from 2012 to 2013, however this was not significant (P>0.05).

There has been slight decrease in the number of patients with severe/occlusive ICA disease.

There has also been an increase in the number of patients with minimal ECA disease (<40%) from 2012 to 2013, however this was not significant (P = 0.06, > 0.05).

The severity of disease in the CCA/BIF and ICA arteries was grouped and compared with the patients referring symptoms. Disease in the ECA was excluded as it would not affect the CABG or require urgent surgery.

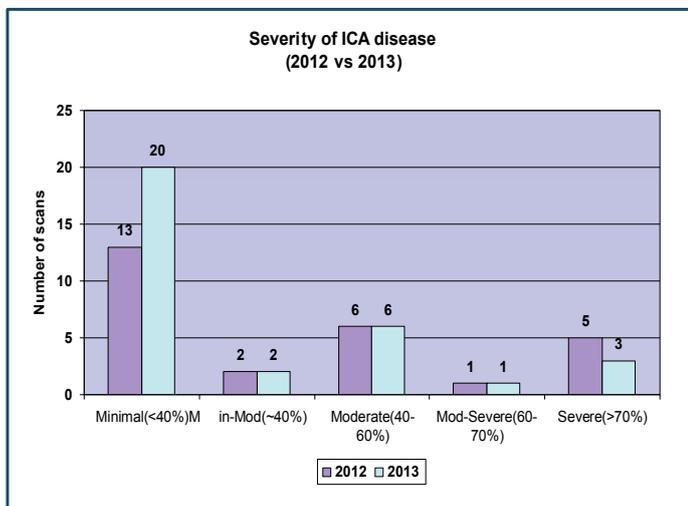


Figure 2. Severity of disease in the ICA

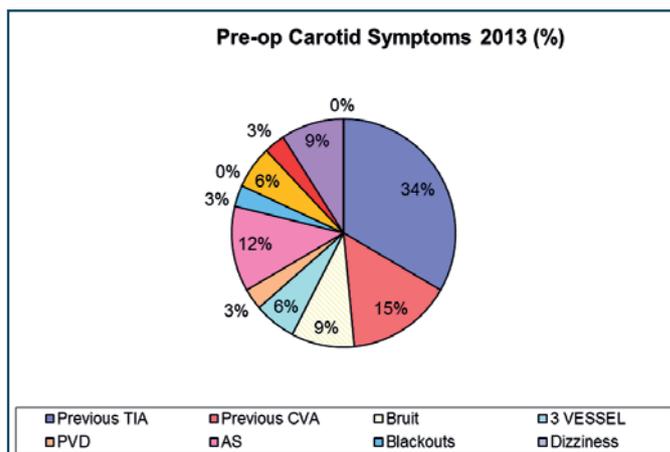
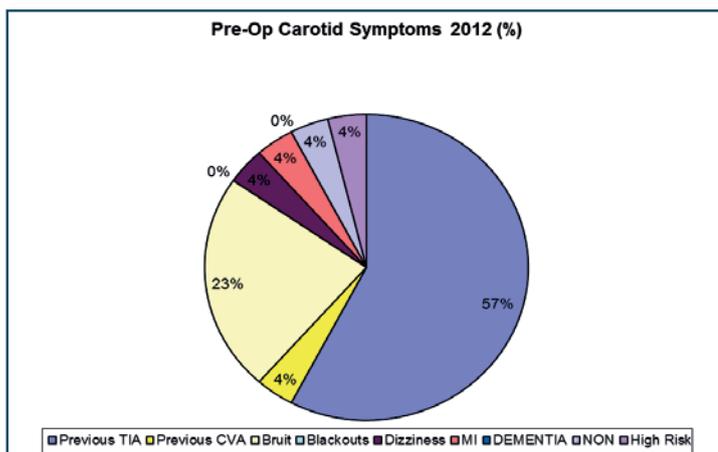


Figure 3: Comparison of patients referring symptoms between 2012 and 2013.

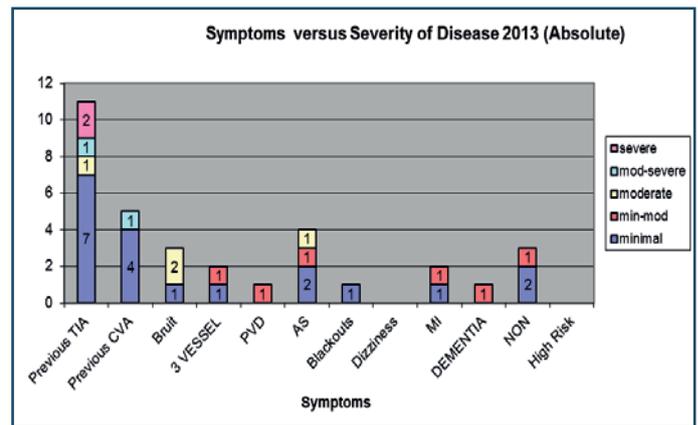
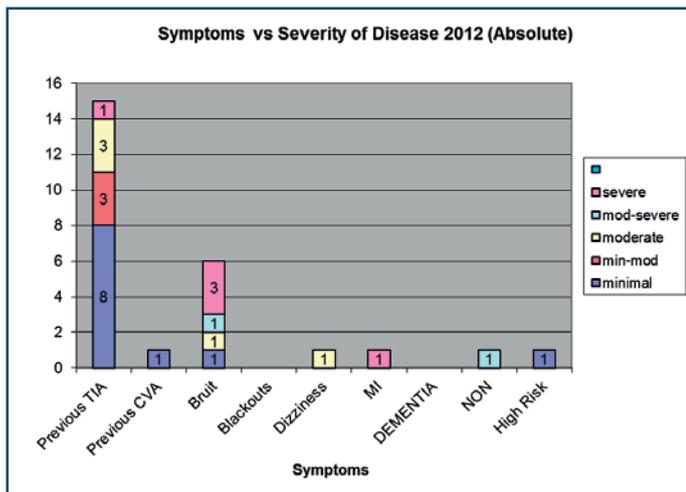


Figure 4: Comparison of patient's symptoms and the incidence of carotid disease (absolute)

53% of patients in 2012 were referred for pre-op carotid scans due to previous TIAs. 8 of these patients had minimal (<40%) disease, whilst 1 patient had severe (>70%) disease.

34% of patients referred in 2013 were referred due to previous TIAs, with 2 of these patients having severe disease.

20% of patient were referred in 2012 with carotid bruits, with 3 of these patients having severe (>70%) disease present.

15% of patients were referred in 2013 due to previous CVA, with 4 of these

patient having minimal disease (<40%) and 1 having mod-severe (60-70%) disease.

Conclusion

In conclusion, we identified an increase in the number of patients with no or minimal disease (<40%) in the CCA/ BIF, ICA and ECA between 2012 and 2013 after the introduction of the new referral criteria.

In comparison to 2012, the number of patients in 2013 referred for previous TIA symptoms had decreased from 15 in 2012 to 11 in 2013. Also, when considering all the pre-op referring

symptoms, only 14 patients between 2012 and 2013 presented with potentially operable carotid artery disease.

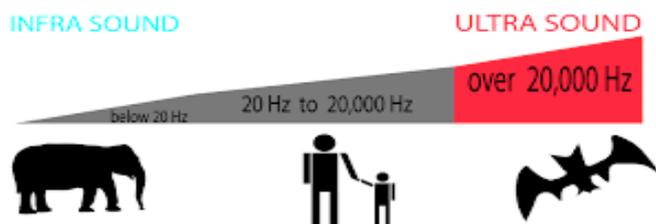
Further audits between 2014 and 2015 should be performed as new trust guidelines have been introduced to see if there is a continuing increase in the number of referrals and increase in the number of patients with no or minimal carotid artery disease.

Fundamentals Of Vascular Ultrasound

2 DAY STUDY EVENT, 28th -29th January 2015, Addenbrooke's Hospital, Cambridge.

A two day course designed to give a basic overview of vascular technology, suitable for trainees preparing for the SVT exams and anyone interested in vascular ultrasound.

Topics to include: ultrasound physics, haemodynamics, vascular disease and vascular imaging techniques, taught as a mixture of lectures and hands on ultrasound workshops.



Both days

**£180 SVT members/associate SVT members
£230 non members**

1 day

**£110 SVT members/associate members
£150 non members**

Provisional timetables to be posted on the SVT website at a later date

Registration can be found at <https://svt.eventhq.co.uk/fundamental-study-day-january-2016>

Please contact: edmund.ramage@addenbrookes.nhs.uk
Registration opens the 1st of November
Registration closes the 8th of January



IQIPS Key Messages From an accredited service



Richard Pole is the Operations Director for Independent Vascular Services (IVS) a company responsible for carrying out a range of vascular ultrasound services across the North West of England.

IVS were awarded Improving Quality in Physiological Services (IQIPS) accreditation in 2014 and became the UK's first vascular service to achieve accreditation under the IQIPS programme.

Richard attended an IQIPS Quality Improvement Workshop in 2015 and presented to delegates working towards accreditation and shared the journey of IVS to accreditation and shared lessons learnt and best practice they have learnt along the way.

Key messages for services working towards accreditation

- Have one single point of contact, and then a team behind this person
- Create a shared drive, where all IQIPS documentation can be held and easily accessible
- Make use of other resources available to you e.g. PALS
- Embed Patient experience within your operations e.g. Survey into clinical patter

- Dissemination of policy, to ensure that people are aware of the message
- Feed back to patients about how you have used their advice and comments and changes you are making
- Facilities, Resources and Workforce domain took the longest time to fully implement and achieve
- Audit was an area that brought challenges – with limited inter observer variability. It was decided to measure agreement in 10% of cases.
- In total, it took about 200 man hours to achieve IQIPS accreditation
- It reduces stagnation within the service
- Has allowed the service to grow up and mature
- IQIPS is an excellent lever for change, and working through the process to accreditation is a great opportunity to use it

What the workshop delegates said about Richard's presentation

'Richard's practical description of getting accreditation was particularly useful.'

'The case study from an accredited service was particularly helpful and shared best practice.'

'The case study introduced some new ideas e.g. tablet survey for improving data collection, analysing and presenting results.'



IQIPS are recruiting Vascular Assessors

UKAS is looking to recruit and train more technical/peer assessors to assess Vascular Science services against the *IQIPS Standard* and to support further development of the service.

UKAS is looking for registered* and experienced Vascular Scientists.

*This includes SVT AVS registrations

You should:

- Have a sound knowledge of the types of clinical and business processes and information systems relevant to Vascular Science Services;
- Have experience in quality assurance;
- Have excellent interpersonal skills and the ability to communicate with staff and management at all levels;
- Be able to give empathetic feedback, and report accurately and concisely, both orally and in writing;
- Be organised and well presented;
- Be able to commit to at least 3 assessments per annum. Each assessment include remote evidence review and at least 1 day for an on-site visit

Competencies and Keywords:

<http://www.ukas.com/library/Tools/Jobs/Assessor%20Keywords%20List%20-%20Vascular%20Science.pdf>

If interested in this position, applications can be completed and submitted online by clicking the following link: <http://www.careers.ukas.com/home/independent-technical-assessing-for-ukas/how-to-apply-assessor/>

- Training is free and will cover, the accreditation standard, assessment skills and techniques and other accreditation requirements.
- Travel, accommodation and subsistence associated with training events and on-site assessment visits will be reimbursed in accordance with UKAS and HMRC guidelines for subcontractors.
- Once authorised as a UKAS technical/peer assessor you must sign a UKAS contract prior to undertaking any assessment work.
- You will be paid an agreed day rate for the on-site assessment visits only (normally one to two days per assessment).
- An assessment team will normally comprise a UKAS employed Assessment Manager/lead assessor and at least one technical/peer assessor. Technical/peer assessors will be expected to prepare for the visit by reviewing and commenting on documentary evidence submitted by the customer before the on-site assessment visit.

For any more information please contact le.tran2@ukas.com

Bubbles

Alison Charig, Queen Alexandra Hospital, Portsmouth

Anatomic Distribution of the carotid bulb as determined by Duplex ultrasound

Thornton, J B; et al. *The Journal for Vascular Ultrasound* 31(2): 87-91, 2007

The authors set out to investigate the prevalence and position of "bulbs" with the carotid arteries. The reason for this study was to assess the suitability of the term "bulb" within carotid Duplex reports.

They investigated 100 patients (17-88 years, mean age 65 + 15 years), who had never undergone any form of carotid surgery or intervention. The indications for the scan were TIA/Stroke or other symptoms suggestive of an ischemic event. Patients were only included if it was possible to obtain a longitudinal B mode image of the CCA, ICA and ECA within the same view. The presence or absence of dilatation was confirmed by measuring the vessel diameter over several centimetres.

The authors found outward dilatations, consistent with the expected appearance of a carotid bulb in the ICA, ECA and CCA with the following distribution:

Bulb location	% distribution
ICA only	49
ICA and ECA	19
ICA and CCA	10
ICA, ECA and CCA	5
CCA only	5
ECA only	5
No bulb	9

In interpreting the significance of these findings, the authors ask us to consider the following observations:

- Anatomy textbooks define the term "carotid bulb" as an area of dilation in the proximal ICA where flow separation may occur, and baroreceptors are located
- In carotid ultrasound reports, the terms "bulb" and "bifurcation" are often used interchangeably.
- Many laboratory reports continue to use the indistinct term "carotid bulb" without any additional pictorial information, possibly leading physicians/surgeons to have different assumptions as to which vessel contains the disease.

The authors conclude that generalised use of the term "bulb" may be acceptable when referring to a broad region of interest, but it is not appropriate when

attempting to identify the specific level of disease that may require intervention. They state that "the use of the term carotid bulb should be avoided so that potential misrepresentation of disease does not occur".

Long-term outcomes of internal carotid artery dissection

Rao, A S et al. *J Vascular Surgery* 54(2): 370-5, 2011

There is poor understanding of the natural history of carotid dissection.

This study describes a retrospective review of patients treated for carotid artery dissection and their long-term outcome over a 20 year period, and is interesting reading for those of us who may encounter this rarely (incidence is thought to be 2.5 to 3 per 100,000).

29 patients (47 + 19.6 years) with carotid artery dissection were identified. Six (21%) related to trauma and 23 (79%) were spontaneous. Neurologic symptoms were reported as including contralateral weakness, acute hemispheric stroke, facial pain and Horner's syndrome. Eight patients (28%) presented with acute stroke.

Diagnosis: Diagnostic Imaging modalities included CTA, MRA and conventional angiography, 20% of patients had complete carotid occlusion, and 25% had near occlusion. Most of the dissections (65%) extended into the intracranial portion and 35% were limited to the extracranial ICA.

Treatment: The majority (95%) were treated conservatively with anticoagulation, antiplatelet therapy, or both. One patient underwent stenting for persistent symptoms and had a complete recovery, and there were 2 deaths (1 unrelated trauma, 1 unknown causes)

Long term follow up was available for 20 patients, 14 (70%) had complete and five (25%) partial symptom resolution. Follow-up imaging revealed patency in 79% patients with minimal residual stenosis, the mean time to anatomic resolution being 11.2 months. Two patients developed small asymptomatic internal carotid aneurysms which did not require treatment.

The authors conclude that the majority of cervical carotid dissections can be conservatively managed, with the majority achieving anatomic and symptomatic resolution, and with low rates of recurrence over long-term follow-up.

The Post-thrombotic Syndrome: evidence-based Prevention, Diagnosis and Treatment Strategies

Kahn, S R et al. *Circulation* 130:1636-61, 2014

This paper provides an overview of post thrombotic syndrome (PTS), together with recommendations for prevention, diagnosis and management. The panel of authors were selected by the American Heart Association Scientific Council due to their multidisciplinary expertise in this area. The review considered the relevant literature from the 10 years prior to Dec 2012.

Background

PTS is the most common long-term complication of DVT and manifests as a spectrum of symptoms and signs which can vary from patient to patient ranging from minor leg swelling at the end of the day to severe complications such as debilitating pain, intractable oedema and ulceration. PTS has been shown to increase healthcare costs and decrease quality of life (QoL). DVT affects 1 to 3 per 1000 population annually. Well designed long-term studies report that 20 to 50% of DVT patients develop PTS, with some studies suggesting that the cumulative incidence of PTS continues to increase, even up to 10-20 years after DVT. Approximately 5 to 10% of PTS patients develop severe symptoms, including ulceration with one study showing the probability of developing a venous ulcer over 10 years after DVT as almost 5%.

Diagnosis of PTS

PTS is diagnosed primarily on clinical

grounds and should generally be deferred until after the acute phase (up to 6 months) has passed. But how should we quantify it? The paper explains, amongst others, the Villalta Scale which includes assessment of 5 patient-rated symptoms and 6 objective -clinician rated signs. Although there are shortcomings of this scale it has been widely and successfully used to classify the severity of PTS and evaluate treatment. The paper describes other similar methods of quantification.

The authors have written a section on objective diagnosis of PTS and mention compression ultrasonography of the popliteal or common femoral vein to look for lack of compressibility or presence of reflux on continuous wave Doppler. Also lack of respiratory phasicity of the common femoral vein and suggest cross-sectional imaging (CT, MRI, contrast venograohy, in combination with intravascular ultrasonography). Caution is expressed, as many patients have demonstrable residual venous abnormalities yet have no symptoms of PTS, in the absence of clinical symptoms PTS should not be diagnosed.

Treatment

Numerous treatment options are given, from compression to exercise training and optimising pharmacotherapy. Of interest to vascular scientists is the suggestion that surgical and endovascular treatments have the potential to treat selected patients. These treatments aim to address deep venous obstruction and valvular incompetence.

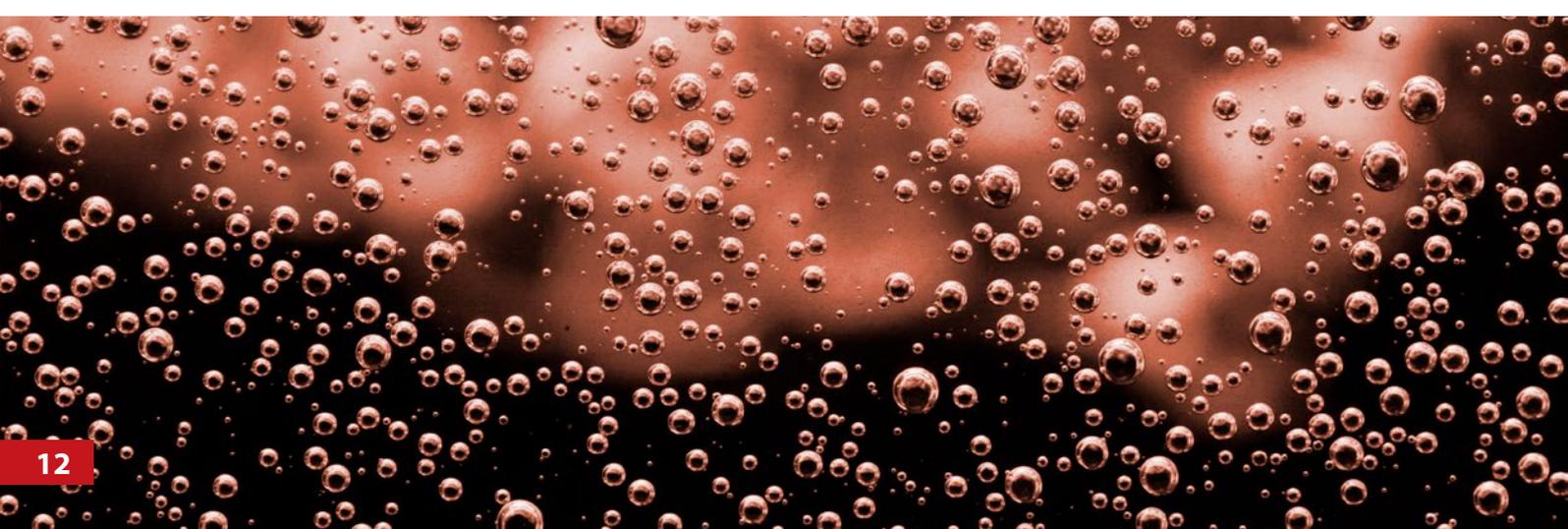
As a first principle, detection and elimination of iliac vein obstruction is suggested. An important consideration when evaluating procedural results is that there is often uncorrected disease distal to the proximal reconstruction, which will mitigate the clinical response to the procedure. The authors recommend that interventions to correct distal reflux should only be considered once it is known that the iliac vein is patent.

A small study (125 patients) reports surgical options including sapheno-popliteal or sapheno-tibial bypass using saphenous vein with patency ranging from 50% to 97%, and clinical benefit of 31% to 75%.

Femoro-femoral bypass using contralateral saphenous vein has been reported as having patency and clinical improvements in 25% to 100% of patients. However, the best patency and clinical success tends to be reported by the trials with the smallest numbers of patients and the shortest follow-up, so casts doubt on the reliability of some of these claims.

Endovascular procedures, such as venoplasty of iliac veins are mentioned, for instance the study assessing ulcer healing over 5 years, which reported a success rate of 55% (procedure related thrombosis was 2.6%).

177 references are given, making this up-to-date review a good place to start if PTS is your area of interest.



SVT Education Committee - CPD update

Shakila Chowdhury and Julia Habens, CPD coordinators



CPD audit

We have had fantastic outcome from the CPD audit this year. A big thanks to all members who were audited for sending us their documents as requested – we know this is a time consuming task and we appreciate your time!

There were 20 AVS members being randomly selected for audit this year. 18 AVS members have fully passed the audit and we are continuing to liaise with the remaining members to receive their evidence and hopefully this will be resolved soon.

REMINDER TO ALL

Please KEEP YOUR DETAILS online up to date. We only contact you via email about CPD audit.

All AGM and conferences for which you have claimed CPD points must be submitted with ATTENDANCE CERTIFICATES ONLY (we do not accept receipts).

Trainees

Although you are not required to submit CPD until you become accredited, the SVT encourages you to keep a record of your activities as this is good practice for the future. If you would like to start adding or keeping a record of your activities – please contact the CPD co-ordinators and we will activate your account for you.



"I got the idea when I was blowing my leaves."

Fines to reinstate AVS

A gentle reminder to all members to ensure their CPD is up to date or your AVS will lapse and need to be reinstated by a payment of a fine. Fines will be donated to the Circulation Foundation.

Until 31st December 2015 - £100 fine

After 1st January 2016 - £250 fine

All queries about CPD should be sent to Shakila and Julia at cpd.avs@svtgb.org.uk

Moving towards a fully paperless system

We are now working to improve the system by working with our IT lead so that we may introduce a way to upload your CPD documents and store this electronically in your area.

We will keep you updated on its progress and hope to bring this facility to you soon.

Introducing Reflective CPD



As discussed in previous newsletter articles, the SVT will introduce reflective practice into our CPD system from this membership year 2015/2016 similar to HCPC and IPPEM requirements. For now, we will be using both the points based system online and a reflective CPD form which will need to be sent with evidence as part of our audit next year.

Please read our updated CPD document which outlines the details of what this entails for us as a vascular scientist and how reflection of our CPD practice allows us to progress in our day to day work. The reflective CPD logbook can be found within the appendix of this document.

This reflective component of submission will allow members

to dedicate a broader range of activities towards their CPD and explain how they work to gain further experience on the key aspects of our development. There are several areas that this can focus on including clinical work, improved knowledge, service development and leadership skills.

To help with this transition, here is an example copy of a reflective CPD form:

Date	Description	Type of Activity (i.e. Educational/ Professional/ Work-based/ self- directed learning)	Benefits to own practice	Benefits to service user	Supporting evidence (i.e. programme / certificate /notes / powerpoint/signed training sheet)
	Lecturing for FRCR ultrasound physics – Seven Deanery.	Educational	Maintaining and developing scientific knowledge. Update teaching skills.	Improve knowledge and understanding – apply to daily practice.	Lecture slides
	BMUS annual scientific meeting	Educational	Keeping up to date with a range of scientific topics in ultrasound, in particular NAAASP training issues.	Apply knowledge to new AAA role to benefit technicians and patients.	Certificate of attendance / meeting notes
	Extended role – appointed AAA lead ultrasound clinician.	Work-based learning	Improved understanding of QA and clinical governance.	Ensure service meets national guidelines. Apply knowledge to other areas of work.	Job offer/ description
	Chair of regional CVRS physiological sciences workforce group and member of South West Physics workforce group	Professional	Improved communication skills, development of regional contacts. Understanding of workforce planning and DH training/ educational policies.	Ensuring Trust up to date with training and educational practice and issues in particular MSC.	Emails & documents
	Trust leadership programme (1 year)	Work-based learning	Development of leadership skills to enable change. Researched and identified new scientific practice.	Improved patient care and services. Deliver cost savings. Changes of practice.	Invitation and programme details
	SVT Education Committee	Professional	Improved organisational and managerial skills. Development of new Accreditation standards and documentation.	Improved communication between training centres. Standardisation of accreditation requirements.	SVT website / documents.
	DH MSC working group for curriculum and learning guide development.	Professional	Gained knowledge of MSC and educational curriculum writing. Broadening scientific knowledge into cardiac and respiratory sciences.	Appropriately trained workforce.	Emails & documents

We would like to inform members to keep a reflective CPD logbook as part of their own records as this is an essential requirement of CPD submissions for this year and will need to be submitted if you are selected for audit.

Please note that this **in addition** to our current CPD system. All members are still required to enter their activities on the points based system online or you may incur a fine.

CPD Questions

Autumn 2015

The following questions have been taken from the NICE website under **NICE GUIDANCE** for **varicose veins**.

Questions

Radiofrequency Ablation of Varicose Veins

1. What type of generator is used for RFA?
2. How many cm/minute is the catheter manually withdrawn?
3. What temperature is maintained?
4. What percentage of Long Saphenous Veins were immediately occluded using the RFA technique?
5. What percentage of patients experienced clinical phlebitis post-operatively?

Cyanoacrylate Glue

1. When did NICE issue full guidance to NHS England, Scotland, Wales and Northern Ireland on cyanoacrylate glue occlusion of varicose veins?
2. What two advantages does this treatment have over other varicose vein treatment techniques?
3. State two theoretical adverse events concerning specialists regarding this technique.

Endovenous Laser Treatment

1. What wavelengths are emitted from the diode laser?
2. In some studies, what percentage range of patients experienced post-operative phlebitis?

Transilluminated Powered Phlebectomy

1. Under what types of anaesthesia can this technique be performed?
2. Why might this technique be advantageous over traditional hook phlebectomy?
3. Out of a study of 114 patients, how many developed a post-operative DVT?

Please forward answers along with your **FULL NAME** & **SVT MEMBERSHIP NUMBER** to:
heather@vascularsolutions.co.uk.

All queries regarding CPD reflective practice should be directed to the CPD coordinators, Shakila or Julia at:

cpd.avs@svtgbi.org.uk.

Many thanks to Teresa Robinson for providing reflective practice examples for this article.

Answers: Winter 2015 newsletter

1.
 - Active bleeding
 - Acquired bleeding disorders (such as acute liver failure)
 - Concurrent use of anticoagulants known to increase the risk of bleeding (such as warfarin with INR > 2)
 - Lumbar puncture/epidural/spinal anaesthesia within the previous 4 hours or expected within the next 12 hours
 - Acute stroke
 - Thrombocytopenia (platelets < 75 x 10⁹/l)
 - Uncontrolled systolic hypertension (≥ 230/120 mmHg)
 - Untreated inherited bleeding disorders (such as haemophilia or von Willebrand's disease)
2. The Peroneal Nerve
3. £197

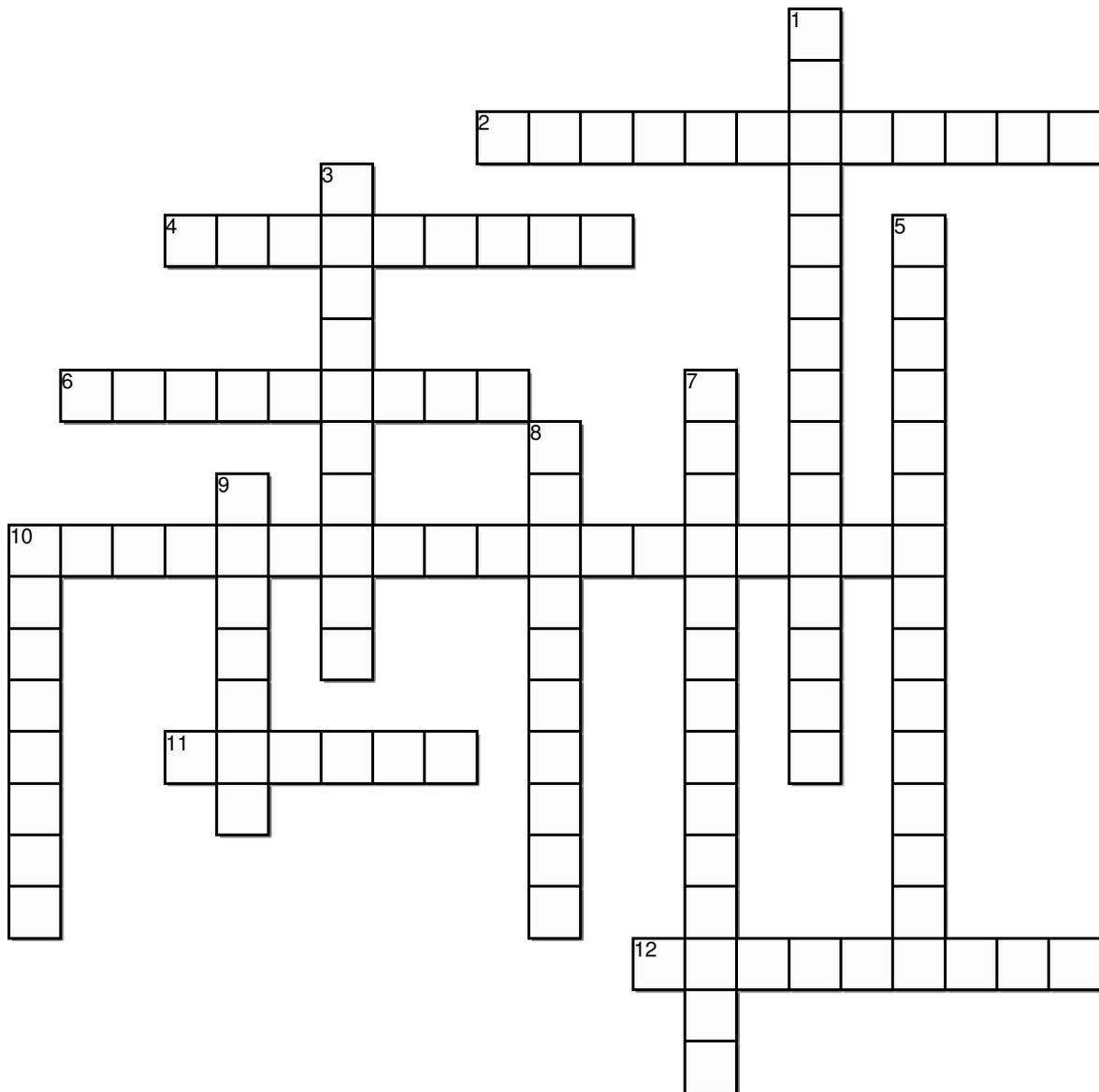
Diagnosing VTE

4. 3cm
5. >2
6. D-Dimer test
7. D-dimer is a product formed in the body when a blood clot (such as those found in DVT or PE) is broken down. A laboratory or point-of-care test can be done to assess the concentration of D-dimer in a person's blood. The threshold for a positive result varies with the type of D-dimer test used and is determined locally. The result of the D-dimer test can be used as part of probability assessment when DVT or PE is suspected.

Treating VTE

8. £235.86
9. Rivaroxaban has the advantage that it avoids injections, regular blood tests and the diet and lifestyle considerations necessary with the combination of heparin and warfarin.

Crossword!



Created on TheTeachersCorner.net Crossword Maker

Across

- 2. Go! Christian Andreas! Move! (7,5)
- 4. Huge gigantic colossal frequency of love or pain (4,5)
- 6. An astronomical artefact (5,4)
- 10. Greek wavelength (6,12)
- 11. Greek wavelength (6)
- 12. What Bob Dylan brought to ultrasound (9)

Down

- 1. Doctorate sins is mixed to give you a stroke risk (7,8)
- 3. This risk will not result in tooth decay (10)
- 5. Lentils, beans, lentils, beans, lentils, beans etc. (5, 10)
- 7. The Queen's procession gesture with no depth discrimination (10,4)
- 8. Sounds like florence got wet and hasn't dried off (6,4)
- 9. The vein you go for (7)
- 10. Misspelled wine cellar (4,4)

Autumn Trainee Competition

As part of a quality assurance programme 4 Vascular Scientists all use the same machine to each take 3 flow volume measurements from a patient with an arterio-venous vascular access graft.

They notice that there is some variation between the 12 measurements.

- How is volume flow calculated? What measurements does the ultrasound system require the operator to make.
- Name 3 factors (clinical or technical), which may account for the variations in the measurements and how each one would impact on the reported value.
- Explain why volume flow measurements made with ultrasound are always likely to have relatively high error margins, regardless of the patient and of the operator's technique.

Please send answers to Matthew Bartlett, on matthew.bartlett@nhs.net. The winner will receive a £25 book token and have their answers printed in the winter newsletter-**Closing date 21st December 2015:**



Trainee Competition Winner Summer 2015

Congratulations to Claire Worrel, Trainee Vascular Scientist at Hull Royal Infirmary NHS Trust for providing the winning answer, printed below, to the Summer Trainee Competition who will receive the £25 book token.

A patient presents with pain and numbness in his finger after recent fistula formation.

A. Name four types of fistulae, including one placed in the leg. For these fistulae name their pathways.

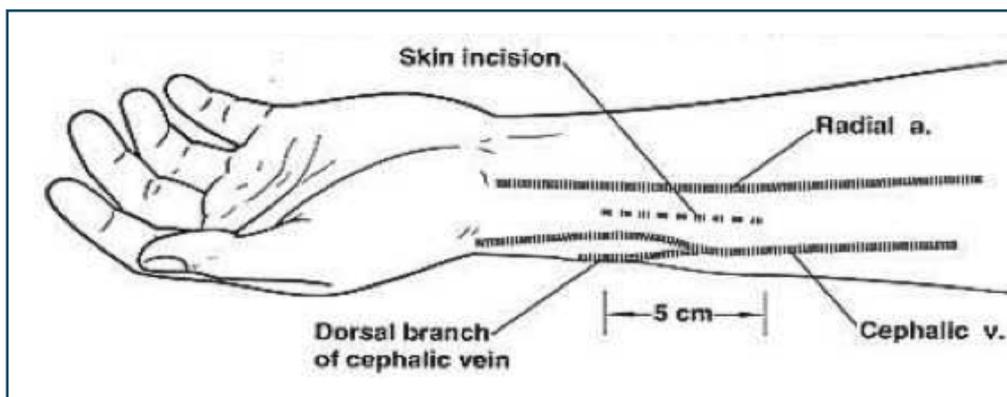
Arteriovenous fistula (AVF) are usually formed in the non-dominant arm distally, to preserve sites proximally as they may be needed in the future. This is because dialysis patients can be on haemodialysis for many years and may need several AVFs over time.

The fistula is created by connecting a small vein to a small artery, using very fine stitches. Within the forearm the cephalic, basilic, and antecubital veins are all options. The arterial choices include the radial, ulnar and brachial arteries. The distal cephalic vein is the preferred venous option due to its location and the minimal surgical dissection involved. (1)

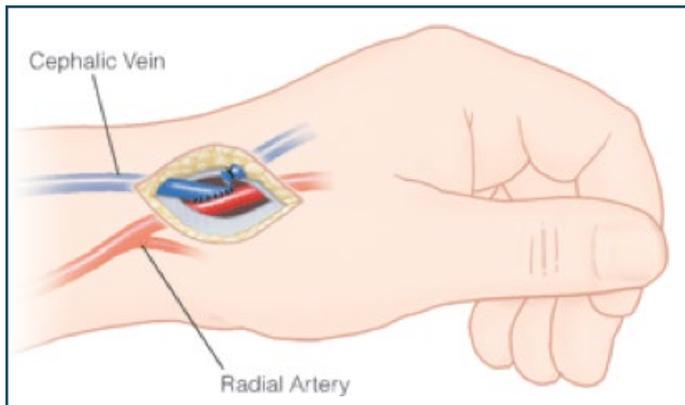
Radial-cephalic AVF

This is anastomosis of radial artery to cephalic vein, created at the wrist. This fistula was first devised in the mid 1960s and is still the most common fistula in use for haemodialysis.

It is possible to create this fistula in any part of the lower half of the forearm. Above this level the muscles of the forearm become too bulky and it is better to use blood vessels around the elbow (2).



Snuff box AVF is the most distal access possible, using the dorsal branch of the radial artery and the cephalic vein.



A particular type of wrist fistula can be created in some patients at the base of the thumb (snuffbox fistula). It is also possible to use segments of vein in the upper forearm and create cephalic or basilic loops in the forearm but with connections to the brachial artery at the elbow (3).

Brachial-cephalic AVF is formed at the front of the elbow it is the anastomosis of the brachial artery to cephalic vein in the cubital fossa. The cephalic vein is found towards the outside of the upper arm and as it enlarges this vein can be used for dialysis (1).

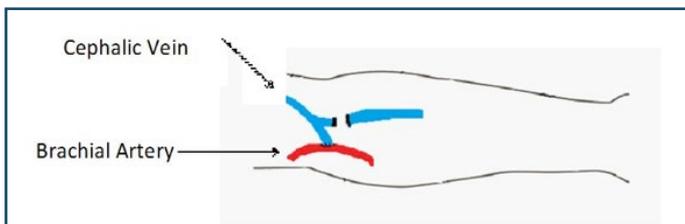


Image obtained from (1)

PTFE loops: sometimes it is not possible to create fistulae using a vein. In these cases an artificial plastic tube is attached to the brachial artery at the elbow and tunneled as a U-shaped loop in the forearm. It is then joined to a vein at the elbow and the tube itself can be used for dialysis - a PTFE loop graft.

PTFE may also be placed in the upper arm as a graft between the brachial artery and the axillary vein in the armpit.

Leg loops: If it is not possible to create a fistula in either arm then it may be possible to form either a vein loop or a PTFE loop in the thigh (4).

There are many other types of fistulae available to surgeons but they are required much less frequently than those listed above. The more unusual variations although not routinely required can be very useful in patients who have already had multiple operations to provide vascular access.

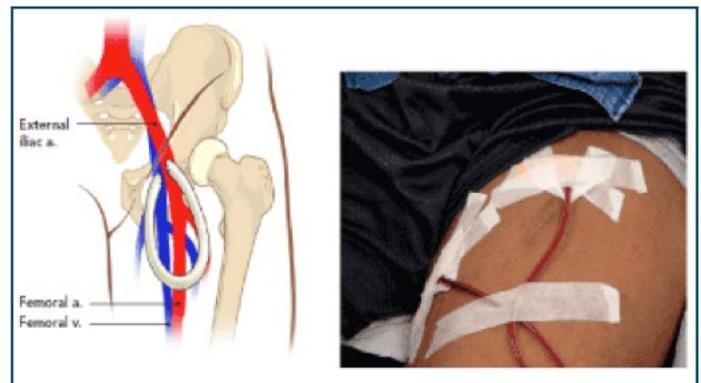


Illustration for thigh AV graft (External iliac artery to femoral vein) obtained from (5) Vachharajani (2010).

B. What are the possible causes of the patient symptoms?

The most likely cause for the patient's symptoms is likely to be caused by vascular steal syndrome. Because blood from the artery is being diverted into a vein before it reaches the hand some patients can develop problems from shortage of blood to the hand. This can be a serious problem if it does arise. It is very uncommon in patients who have fistulae at the wrist. It is more likely to arise when fistulae are created in bigger blood vessels around the elbow, when it may occur in up to 10% of patients.

Symptoms of steal can include a cold hand, pain, discolouration and ulceration. Symptoms are typically worse on dialysis. Steal may be more likely to develop in patients who have peripheral vascular disease and/or diabetes. Before treating the steal it is important to fully investigate the cause with a fistulogram and/or an ultrasound.

Other factors that may be investigated if the symptoms are not caused by steal

- Thrombosis
- Inflow stenosis – On some occasions an arterial narrowing proximal to the fistula can be responsible and it often easily treated with angioplasty.
- Retrograde flow – back flow into the artery distal to the arteriovenous anastomosis and into the arteriovenous access.
- Distal arteriopathy – result of generalized vascular calcification due to diabetes (2)

C. List at least two questions you could ask the patient to assist in the investigation

- How long have you had the fistula for?
- Can you describe your symptoms
- Does anything relieve the symptoms?

D. What are the possible treatment options?

There are a number of options which should be tailored to the individual patient. An assessment of the arterial inflow should be performed and arterial stenosis treated. Options then include:

- Ligation of AVF - the fistula may have to be tied off to restore blood flow to the hand. This will solve the steal but the fistula will then be lost.
- Banding to increase resistance of the AV fistula.
- Distal revascularisation, interval ligation (DRIL) procedure, where the artery distal to the fistula is ligated and a bypass graft is placed well above the fistula.
- Proximal arterial inflow (PAI) procedure, where the fistula is ligated at its origin and a PTFE graft is run from the more proximal brachial or axillary artery to the fistula.
- Revision using distal inflow (RUDI) procedure, where the fistula is ligated at its origin with a bypass created from one or more distal forearm arteries.

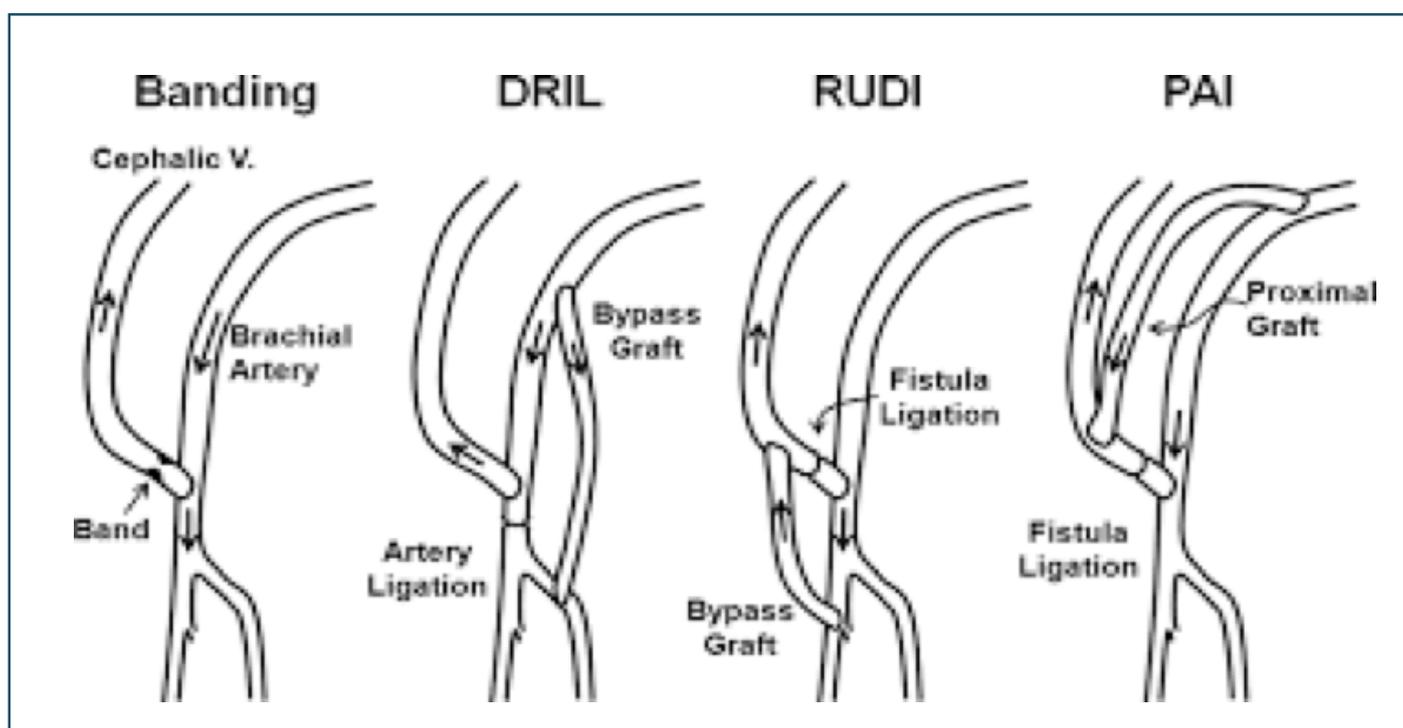


Image obtained from Zamani (2009)(6)

Use of a tapered graft- Interposition grafting with a tapered synthetic graft can be effective and has the advantages that normal arteries are left intact. It is essentially a more controlled form of banding.

References

1. <http://www.intechopen.com/books/hemodialysis/hemodialysis-access-initial-considerations-and-the-difficult-patient> accessed 28/09/15
2. http://www.vascular.co.nz/vascular_access_surgery.htm accessed 09/09/15
3. McMonagle & Stephenson (2014) *Vascular and endovascular surgery*, John Wiley & sons, Oxford.
4. <http://www.niddk.nih.gov/health-information/health-topics/kidney-disease/vascular-access-for-hemodialysis/Pages/index.aspx> Accessed 11/08/15
5. Vachharajani TJ, Moossavi S, Salman L, Wu S, Maya ID, et al. (2010) Successful models of interventional nephrology at academic medical centers. *Clin J Am Soc Nephrol* 5: 2130-2136.
6. Ischemic steal syndrome following arm arteriovenous fistula for Hemodialysis Payman Zamani (2009) *Vascular Medicine* 2009; 14: 371-376

Call for Volunteers

Earn Extra CPD points and help support Trainees!

The SVT are looking for volunteers to become tutors and demonstrators for the Fundamental and Tutorial study days

The fundamental days, 28th and 29th January 2016: A two day course designed to give a basic overview of vascular technology, held for the benefit of trainees preparing for the SVT exams and anyone interested in vascular ultrasound. Taught as a mixture of lectures and hands on ultrasound workshops.

If you are interested in helping out please contact: edmund.ramage@addenbrookes.nhs.uk

Tutorial days: A two day event which involves tutoring small groups of AVS trainees, covering one specific module of the exam syllabus and working through exam style questions related to that topic. Held at the End of March 2016

If you are interested in helping out please contact: dsv_svt@hotmail.com

Full support will be given to the volunteers by the Education committee.



Committee Vacancies for 2016

The SVT relies on the good will and dedication of its members to support and promote the development of our profession. Although we are a relatively small society we have always been extremely fortunate to attract new enthusiastic and willing volunteers every year to help run and influence our society. This continual cycle of refreshing our committees and working groups ensures that there is always an assortment of opinions, skills and knowledge leading our profession into the future.

The following vacancies are available for 2016, if you are interested please send your details to newsletter@svtgbi.org.uk

BMUS Representative

The BMUS role involves attending the BMUS science and education meetings which are held in London 3-4 times a year and supporting them in organising the vascular stream of their annual scientific meeting held in December every year. You would also report back to the education committee which also meets 4 times a year.

Website Secretary

As website secretary you are responsible for loading information onto the website and communicating with the membership through our Facebook page and other social media. If you are a good communicator and social media savvy this may be a good role for you.

Non-Portfolio Member (Executive Committee)

This year the executive committee has a vacancy for a non-portfolio member. This role does not have specific tasks however you will have the opportunity to assist other committee members with their work and is a great introduction to the committee if you are interested in being more involved in future. You will attend four executive meetings a year.





2015 Academy Congress – 6&7 December, Edinburgh

The second Academy for Healthcare Science Congress will be held in Edinburgh on 7 December 2015, with an awards ceremony and dinner on the evening of 6 December.

The Academy for Healthcare Science invites delegates and their guests to join us for a fantastic evening of dinner and entertainment at The Hub, a spectacular Category A listed building at the heart of central Edinburgh. Enjoy superb networking opportunities and great food as we explore why having a unique One Voice really matters in Healthcare Science.



For further information on the congress please go to:

<http://www.ahcs.ac.uk/2015/07/2015-academy-congress-67-december-edinburgh/>

The SVT is offering to cover the reasonable expenses of one delegate to attend the congress and provide feedback to the SVT, if you are interested please contact Tanyah Ewen, Tanyah.Ewen@pbh-tr.nhs.uk

Committee Members 2015

EXECUTIVE

President

Tanyah Ewen

Past President

Vicky Davis

Vice President

Tracey Gall

Membership

Sara Causley
membership@svtgbi.org.uk

Website & Job Adverts

Jacqui George
website@svtgbi.org.uk

Newsletter

Helen Dixon
newsletter@svtgbi.org.uk

Treasurer

Georgie Fenwick
treasurer@svtgbi.org.uk

Conference Secretary

Dominic Foy & Emma Waldegrave
conference.secretary@svtgbi.org.uk

EDUCATION

Chair

Siobhan Meagher
siobhan.meagher@luht.scot.nhs.uk

Exam Registration

theoryexam@svtgbi.org.uk

CPD Coordinator

Shakila Chowdhury
cpd.av@svtgbi.org.uk

Assistant CPD coordinator

Julia Habens
cpd.av@svtgbi.org.uk

Study Day Coordinators

Edmund Ramage & Davinder Virdee

Newsletter Questions

Heather Griffiths

Technology Exam Officer

Tom Cranfield
thomas.cranfield@nhs.net

Physics Exam Officer

Matthew Bartlett
matthew.bartlett@nhs.net

Practical Exam Officer

Anne Delossantos
practicalexam@svtgbi.org.uk

Trainee Network

Ria Sharpe
ria.sharpe@uhl-tr.nhs.uk

Venous Forum/BMUS Representative:

Tracey Gall
tracey.gall@ivs-online.co.uk

STP Graduate Representative

Naavalah Ngwa-Ndifor
naavalah.ngwa-ndifor@bartshealth.nhs.uk

PROFESSIONAL STANDARDS COMMITTEE

Chair

Matthew Slater
matthew.slater@addenbrookes.nhs.uk

Members

Mel Williams
Richard Craven
Lila Elliott
Alison Charig

