Newsletter

The Society for Vascular Technology of Great Britain & Ireland

Issue 89. Summer 2015

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Welcome to the Summer 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 information on this years SVT ASM, information on how to nominate for the Ann Donald Award, an interesting case study by Ming Yeung and an article on this years 'Big Bang Fair' from Laura Howarth.

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.

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 Laura Howarth. This article was chosen for showing how members can get involved in raising awareness amongst young people about our profession.

The next Newsletter will be the Autumn Issue, and the closing date for receiving articles will be 2nd October 2015.

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

Dates for the diary 2015

Membership subscriptions due
1st September

SVT ASM Abstract Submission deadline
4th September

SVT Resit Exams
7th September

VASBI Annual Meeting, The Midland Hotel, Manchester
24th and 25th September

Ann Donald Award nominations deadline
31st October

SVT ASM, Bournemouth International Centre
12th November

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

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

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

- Student research proposals
- Proffered papers
- Guest Lectures
- Debate on Graft and Stent Surveillance
- Business meeting

Don't Forget

Drinks and canapés at Aruba Bar, Bournemouth pier 7.30pm – 9.00pm on Wednesday 11th.

Come and warm up for a great few days of updating, learning and catching up with friends and colleagues

SVT Annual Scientific Meeting

BIC Bournemouth

Thursday 12th November.

CALL FOR ABSTRACTS

Deadline: Friday 4th September

Abstract submission is now open for this year's ASM and abstracts can be submitted for TWO sessions:

The Scientific Session (for completed projects)

- Open to all (including students and trainees).
- For research, case studies, audits, service developments.
- Free registration for the presenting author.
- £500 prize for the best paper presented on the day.
- £50 book token for all trainees presenting in this session.
- The expected duration of the presentation will be 7-12minutes (dependent on the number of successful papers) and with a maximum of 12 slides.

The Student Session (research proposal only)

- Open to all members registered for an MSc degree
- For Masters research project proposals only.
- Half-price registration fee for the presenting author.
- £100 prize for best proposal presented on the day.
- The expected duration of the presentation will be 4 minutes and with a maximum of 2 slides.

Abstract submission will be in electronic format only using the submission form on the SVT website emailed to conference.secretary@svtgbi.org.uk

For queries contact Dominic at conference.secretary@svtgbi.org.uk

Kind Regards,
Dominic Foy, SVT Conference Secretary

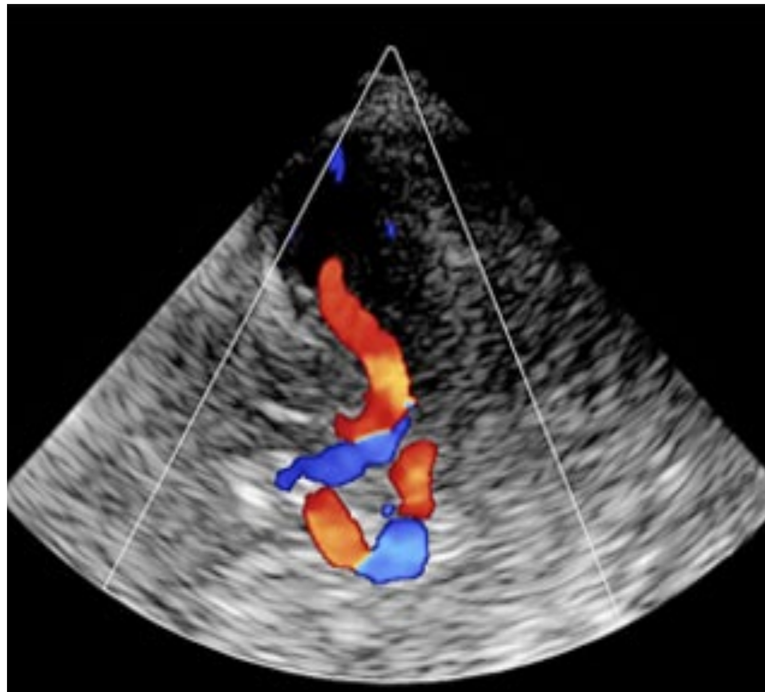
2015 SVT Workshop Bournemouth

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.

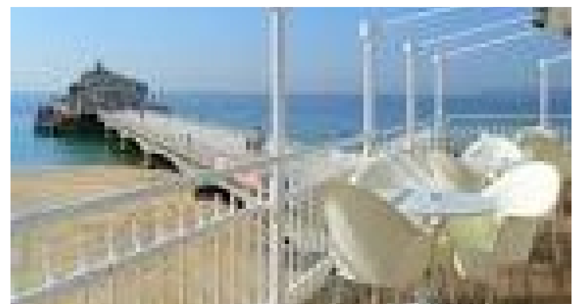
Book places when registering for the SVT main meeting.

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

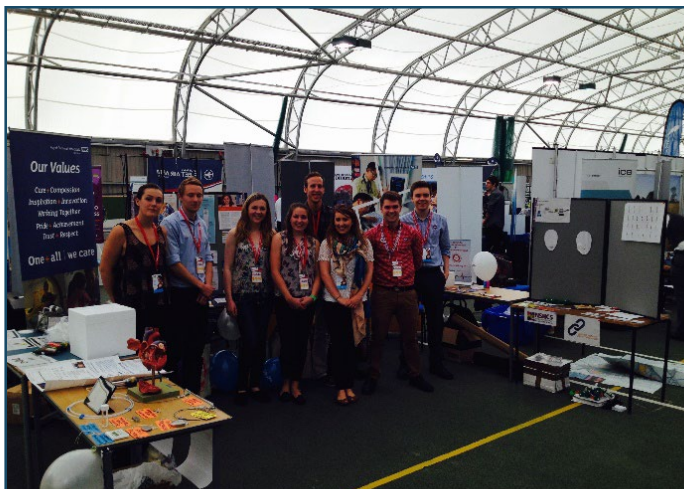
Dominic.foy@rbch.nhs.uk

Photos borrowed from Tripadvisor with thanks

Promoting Vascular Science

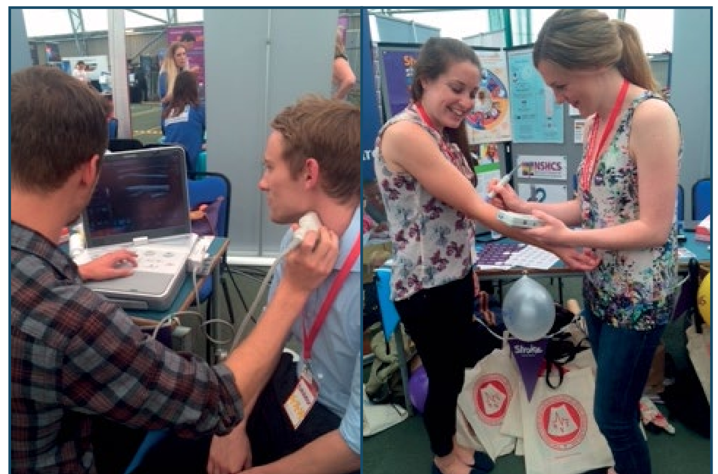
Laura Haworth, Clinical scientist trainee (STP), Royal Cornwall Hospital

On Thursday 25th June eight Healthcare Science Trainees from the South West; with four of these being vascular trainees, set up a stand at the regional Big Bang Fair held at the University of Exeter. The Big Bang Fair is a science fair where professionals from local or national companies who work in Science, Technology, Engineering or Maths backgrounds (STEM) can showcase their area of expertise and provide insight into future careers to the 11-17 year olds who make the trip.



- Genetics – Extracting DNA from fruit so it becomes visible
- Bioinformatics – Using computers to look up DNA sequences
- Vascular Science –portable scanner and hand held Doppler
- Cardiac Science – A model of the heart and examples of implantable devices e.g. pacemakers and the use of echo in diagnosis
- Medical Physics – Using a radiation detector to pick up background radiation

The vascular STP trainees including myself (2nd year), Jodie Weston (1st year), Phil Hickman (3rd year) and Emma Partridge (2nd year) thoroughly enjoyed being able to promote vascular science to the young minds of the future and be able to inspire them about a career in healthcare that they may not have previously known about. We had a portable ultrasound where we demonstrated carotid artery scans on ourselves, phantoms- which allowed the students to be able to have a go at scanning for themselves and a hand held Doppler- which was a huge hit with the children who found it fascinating to be able to find and hear their own artery. By having lots of interactive items on our stand allowed us to engage the children and provided a more exciting way to explain the basic science behind ultrasound and the vascular system.



The SVT very kindly donated some promotional material for us to give out at the event; including some bags which the kids loved and was a great way of attracting them over to our stall and being able to engage them in what our stand was about.

The stand was a great event to promote healthcare science and it's role in the NHS and especially from our side - vascular science. There were very few people that knew anything about our job and what it entailed, so provided a great opportunity to inform and educate people about the job, the STP programme and the NSHCS. The children were not the only ones interested; but also teachers, career advisors and other exhibitors who took information to advocate this in their schools or

to their own children at home.

At the end of the day when the fair had got a bit quieter gave us the opportunity to go and explore the other exhibitors' stands for ourselves; which was great fun (I think we may have enjoyed it more than the children). We got to make our own lip-gloss, made a cloud, took part in lots of interactive games and went to a fantastic talk and 3D show about space and evolution. I think we also learnt something new from the day too.

Being a part of events such as this is not only beneficial for the children by helping put their classroom learning in to context and provides an opportunity to discover the STEM careers available to them but also for yourself for developing your own professional practice and in promoting healthcare science; especially the niche that is vascular science to the wider population. We will be hoping to attend again next year and would be great to see more vascular members involved.

All in all, the Big Bang Fair was a great opportunity to engage with the younger generation and hopefully we inspired some future budding clinical scientists!

The stand was organised by myself and Stuart Cannon who have set up a South West healthcare science trainee network- this is currently mainly based for STP students but we would love it to be open for all trainees/trainers in the south west. The Trainee Network vision is to support, provide representation, advise, develop and promote all healthcare science trainees and newly qualified staff from all healthcare science specialisms across the South West. For more information please contact me:

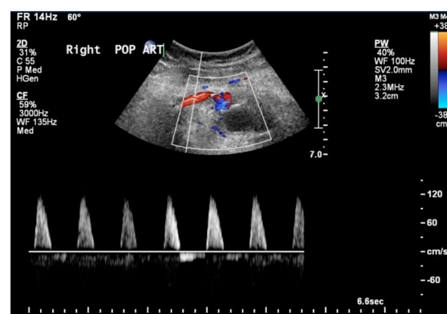
laura.haworth@rcht.cornwall.nhs.uk

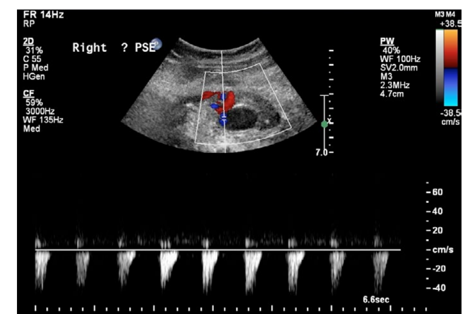
Pseudoaneurysm Case Study

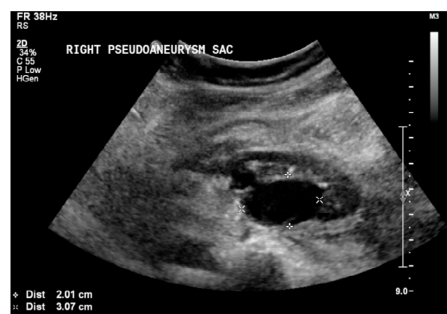
Ming Yeung, Trainee Vascular Scientist, Portsmouth Hospitals NHS Trust

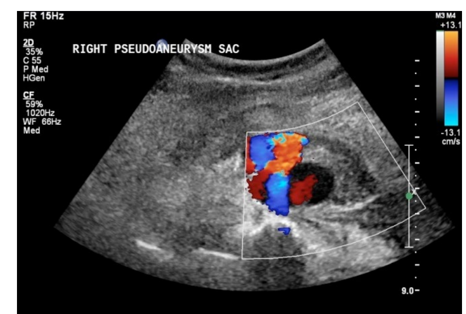
A 68-year old lady was referred from the hospital's Medical Assessment Unit for a lower limb ?DVT scan. She had a knee replacement in her right leg approximately a week ago and four days post-surgery she started experiencing pain in her proximal posterior calf with some numbness and tingling in her right foot.

Upon scanning her right leg, the veins appeared patent with no evidence of DVT. However, a patent sac with arterial flow was noted in the popliteal fossa. The sac was a pseudoaneurysm originating from the popliteal artery. Ultrasound images of the pseudoaneurysm were taken and the results were reported.









The results were explained to the patient and she was referred to the Vascular Team on the same day. The Consultant Vascular Surgeon felt that the treatment option for thrombin injection to seal the cavity was not appropriate as the pseudoaneurysm neck diameter was quite large (~0.7cm).

The patient was seen in the Vascular Rapid Access Clinic and the Surgeon explained to the patient that the incidental finding of the pseudoaneurysm was likely to be an accidental cause from the knee surgery she recently had. The Surgeon then offered two possible treatment options; one to insert a covered stent into the popliteal artery or alternatively to treat with surgery but surgery is more invasive and the least favourable option.

The patient opted for the covered stent treatment and a CT was arranged pre-surgery. The CT scan was performed two weeks later and revealed that the pseudoaneurysm appeared to be thrombosed, however with very poor images due to the knee replacement; a rescan with ultrasound was suggested. The subsequent ultrasound scan then confirmed that the pseudoaneurysm had thrombosed without any intervention. This finding was reported back to the Consultant and the patient was informed that surgical intervention was no longer required as the sac had thrombosed.

Vascular Assessment Unit
Queen Alexandra Hospital

Portsmouth Hospitals NHS
NHS Trust

Date of Test: 17/2/15

Right popliteal fossa

- neck diameter (~1.1cm x 0.7cm)
- pseudoaneurysm (~2.0cm x ~3.1cm) - thrombus noted within sac
- Referral to Vascular Team recommended

This was an interesting case study as pseudoaneurysms are not often seen in the popliteal artery but more commonly seen in patients who have had radial or femoral artery puncture during cardiac catheterisation.

Ann Donald Scientist of the Year Award 2015

Call for Nominations

An annual award for the scientist who has performed the best original research or been the most innovative in the promotion of vascular ultrasound.

The annual prize of £500 will be awarded to 'the scientist who has performed the best original research or been the most innovative in the promotion of vascular ultrasound during the year'.

How to nominate someone for the award: Nominations for this award can be made in writing using the application form on the SVT website.

www.svtgbi.org.uk/resources/anndonald

You may either nominate yourself or another, in recognition of achievements over the past year or so. Applications must be completed in full, with supporting evidence and two others to support your nomination.

The deadline for nominations is 31st October 2015, and the prize will be awarded at the 2015 AGM if we receive an appropriate nomination.

ANNUAL SUBSCRIPTIONS DUE 1ST SEPTEMBER

All renewal fees are due on 1st September 2015.

Fees are £30 or €41 payable by online payment via the website, cheque or standing order.

Remember late payment fees now apply. £5/7€ if fees not paid by 30th September and £15/ 21€ if not paid by 31st December.

Please complete and forward a renewal form available on the website and in this newsletter to the membership secretary c/o The Vascular Society

REMEMBER TO ALSO INCLUDE A CURRENT E-MAIL ADDRESS.

Benefits of membership include quarterly newsletters, job adverts, reduced rates at meetings and the right to vote on issues that concern us all.

Please also note membership must be renewed before registering for this years AGM.

Please remember that by renewing your membership you agree to abide the SVT code of conduct (available on the website).

THANK YOU

Sara Causley, Membership Secretary (membership@svtgbi.org.uk)

Society for Vascular Technology of GB&I c/o The Vascular Society,
35-43 Lincoln's Inn Fields, London WC2A 3PE

Name two types of medical research study

In terms of medical statistics and research explain the following terms: Bias, Sensitivity & Specificity

P- value : When is it used and What does it mean

Please send answers to Siobhan Meagher, Chair of the education committee on siobhan.meagher@luht.scot.nhs.uk. The winner will receive a £25 book token and have their answers printed in the Summer newsletter.

Society for Vascular Technology of Great Britain & Ireland

RENEWAL NOTICE SEPTEMBER 2015/16

Dear member,

We welcome your continuing support of our Society.

Your subscription for the period 1st September 2015- 31st August 2016 is now due.

The cost remains at £30 sterling or 41€. Please note this does not apply if you became a new member between June 1st and August 31st 2015. Your first renewal will be 1st September 2016.

Please tick one of the following options and return this form to the membership secretary: see email and postal address below.

AVS members should note that membership fees and CPD submission are due by 1st September. **After September, late membership fees also incur a £5/7€ or £15/21€ penalty and CPD fines of £100-250.** Your accreditation is also at risk if your CPD has not been submitted by the end of December.

1)	I have an existing standing order mandate and payment will be collected on or after 1st September	
2)	I wish to set up a standing order and have sent a standing order mandate to my bank for immediate payment (UK ONLY) (Standing Order Mandates available to download from the SVT website) **www.svtgbi.org.uk**	
3)	**I have made an online payment via the SVT website** or a **direct bank transfer**, paid on….	
4)	I wish to pay by cheque and enclose a cheque made payable to **The Society for Vascular Technology of GB&I**	

To ensure you receive all communications from the society including newsletters please complete the section below with your preferred postal and e-mail address.

By renewing my membership I agree to abide by the SVT code of conduct available to view on the SVT website.

NAME : ……………………………………………………SVT No…………………

ADDRESS: ………………………………………………………………………………

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TEL : …………………………… E-MAIL : ………………………………………

Signature ………………………………………… Date ……………………………

Society for Vascular Technology of GB&I

c/o The vascular Society

Royal College of Surgeons

35-43 Lincoln's Inn Fields

London WC2A 3PE

Membership Secretary- membership@svtgbi.org.uk

Bubbles

Richard Craven, Derriford Hospital, Plymouth

Abdominal Aortic Aneurysm Diameters: A Study on the Discrepancy between Inner to Inner and Outer to Outer Measurements.

Meecham L. et al. Eur J Endovasc Surg (2015); 49: 28-32

Historically, both inner to inner wall (ITI) and outer to outer wall (OTO) measurements have been used to assess AAA. ITI measurements have been shown to have better repeatability, with OTO displaying greater variation.

OTO has been used in the UK to guide treatment (UKSAT), but the NAAASP, now well established in many regions of the UK, has taken its lead from the MASS trial (which assessed mortality benefit and cost effectiveness against aortic size) in adopting ITI measurements as standard over OTO.

This study from Staffordshire/South Cheshire principally aimed to determine the absolute difference between ITI and OTO measurements on new patients suspected of having an aneurysm, and those already under surveillance.

452 subjects were measured over 17 months by vascular sonographers trained through the NAAASP programme in Salford. All measurements were recorded in the same manner as in NAAASP during typical clinics using LS and TS at peak systole for ITI and OTO, with no retrospective measuring of static images. 81% were men; overall there was a mean age of 78 years. Aortic dilations were categorised into <3cm, 3.1 to 4cm, 4.1 to 5cm, >5cm dia.

Results showed a consistent 4mm difference between the two measurement methods (range 1 to 16mm), reproducible between operators.

Since ITI measurements are inherently smaller than OTO, a number of subjects did not undergo continued surveillance as their ITI measurements did not reach 3cm, prompting the authors to recommend lowering the NAAASP inclusion threshold for surveillance from 3cm dia. to 2.6cm. This, they estimate, could result in an extra 5316 men entering surveillance nationally every year, enabling detection of all truly aneurysmal aortas and raising the detection rates closer to that in MASS (NAAASP = 1.4%, MASS = 4.9%.) They also point out that, at the other end of the scale, an ITI measured large AAA may have treatment delayed based on this 4mm difference.

They show how their research relates well with others' studies; recent long term data quoted in the paper showed 59% of 2.6 to 3cm dia. aortas becoming aneurysmal at 5 years, and 96% at 10 years, while another study demonstrated increased rupture rates in previously non aneurysmal aortas; indeed, a 13 year follow up of MASS data showed 59 ruptures in subjects originally measuring <3cm at their first scan (18 of whom lay in the 2.5 to 2.9cm dia. category; this was thought to erode the long term benefits of the screening programme.) The paper's own data showed there was no statistical significance between rates of progression as measured by ITI or OTO up to treatment size (5.5cm.) Additional data quoted showed it was safe to repeat scan at 5 years for 2.5 to 3cm aortas, and the paper suggests repeat scans for this size range at 5 to 7 years to maximise cost effectiveness of screening.

Additional results showed there was no difference in the mean ITI diameters for each of the studies' size categories. This they say supports the current measurement techniques used in NAAASP. However, the mean OTO diameter did increase with increasing aortic size, but it was not statistically significant. No significant difference was found in mean values for ITI or OTO between genders.

This study will allow comparisons between the two measurement methods, informing those implementing screening programmes as to which method is appropriate for them, and the authors feel reproducibility and reliability could be assessed using different sonographers for the same patient, including those measuring <3cm. They also suggest the NAAASP could be used to record data for <3cm dia. aortas to further understand their natural history.

The Necessity for Routine Pre-operative Ultrasound Mapping Before Arteriovenous Fistula Creation: A Meta-analysis.

Georgiadis G.S. et al. Eur J Endovasc Surg (2015); 49: 600-605

With primary failure rates approaching 40%, this meta analysis of 5 RCTs revisited the controversy over which method of pre-operative assessment has the best outcome; routine Doppler Ultrasound (DUS) or clinical examination (CE) with selective DUS. Despite no general consensus, European Practice Guidelines suggest routine DUS prior to surgery, based only on one RCT.

574 patients' results were pooled; outcomes measured were: Immediate failure (thrombus or no thrill at 24 to 48hrs; inadequate vein at dissection)

Early/mid term adequacy for haemodialysis (useful at 1 or 6 months post-op.)

Primary patency or primary assisted patency rate =/>1 year post-op.

Quality of the study method.

Not all the five RCTs concluded on these outcomes, and method quality was difficult to assess on numerous accounts, such as surgeon can't (and shouldn't) be blinded to information for pre-operative assessments. However, the results of this pooled analysis show:

The primary benefit from routine DUS is in significantly reducing the immediate failure rate, to almost three times less than if examined by CE and selective DUS instead (two of the five studies showed this, while 2 others showed no difference, and one did not assess it.)

Data for the other outcomes was less definitive. DUS tended to improve early/mid term patency (there was evidence from 4 of the 5 RCTs for this.)

There was some evidence for DUS raising patency rates at one year or greater in one RCT, but another showed no statistical difference.

Quality of the studies was, overall, fair to moderate, and involved a complicated analysis of numerous factors affecting study design and eventual statistical outcomes. Indeed, some of the stated limits of this meta analysis include being unable to clarify if the two methods of analysis were comparable with respect to outflow (fistula) vein diameter, differences in CE protocols and vagueness of indicators for selective DUS.

The paper concludes that although DUS has not always been shown to better than CE prior to AVF, and may not necessarily alter surgical plan when DUS has followed CE, it has found there is now greater evidence for formal preoperative DUS assessment prior to fistula formation, and that DUS can significantly improve short term outcomes, slightly improve early/mid term adequacy whilst avoiding abortive surgery at dissection.

Three-Dimensional Ultrasound Evaluation of Small Asymptomatic Abdominal Aortic Aneurysms

Bredhal K. et al. Eur J Endovasc Surg (2015); 49: 289-296

US and CTA are used at various stages of surveillance and surgery planning. Ultrasound tends to underestimate AAA dia. compared with CT, and major errors have been noted when sonographers measure AAA in different ways.

This prospective, single expert centre, 11 month Danish study used Phillips' 3D ultrasound (3DUS) technology and new software to construct a 3D AAA model in 100 patients. All AAA measured >3cm, <5.5cm (20 females, 80 males), and two clinicians, mutually blinded to patients, assessed their own US and CT work.

The 3DUS model was constructed from simultaneous real time TS and LS data, creating dual plane (TS/LS) dia. measurements, the AAA diameter 90 degrees to its centreline, and partial AAA volume from its best seen proximal and distal extents.

TS dias. were measured from leading edge anterior wall adventitia to leading edge posterior wall adventitia at peak systole, with the aorta horizontal. ECG gating was not used to determine dia. at peak systole (the difference between AAA dia. at peak systole and end diastole has been reported as 1.95mm dia.)

The models were acquired when holding the breath (<2s) and scanning along the aorta. Data was transferred to semi automatic software for reconstruction. Each physician encircled the aorta at the proximal and distal most visible part of the AAA, plus one in the middle. Manual adjustments could be made before the centreline was calculated, and the maximum dia. 90 degrees to the centreline was defined in any direction, not just A/P. Maximum (partial) AAA volume was calculated between two cross sections 6cm apart (thereby maximising the length of AAA measured and number of patients included.)

RESULTS SHOWED:

Technical success of 3DUS construction is high (90.9%): some were excluded for poor image quality, some for presence of iliac aneurysm.

3DUS can reduce the disparity between US and CT to within a few mm: 54 patients were available for CT/US intermodality analysis: the mean 3DCT centreline dia. (gold standard in this study) was 2.6mm larger than the mean US dual plane dia., and 1.8mm larger than the mean 3DUS centreline dia. This 0.8mm dia. improvement on 3DUS over standard dual plane measurement was statistically significant.

There is acceptable inter-observer reproducibility for 3DUS (to within 3.2 to3.7mm using 79 patients).

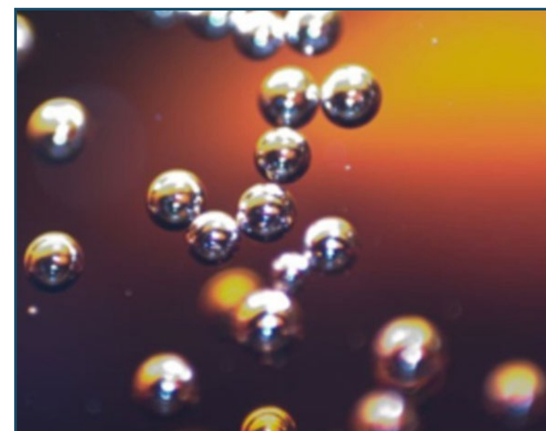
No significant inter-observer variance was noted (79 patients, one clinician's data), but there was greater variance here than previously reported for CT

Post-processing takes 1 to 2minutes per examination

Partial volume 3DUS estimates fall within +/-3mm of 3DCT if volume reproducibility is transferred to dia. reproducibility. It is unknown as to whether or not partial volumes may provide useful information, and requires further study. Key locations, such as renal artery origins, could not be displayed as they can with CT.

Image quality and BMI did not affect intermodality agreement or reproducibility of dia. assessment for US, but poor image quality was related to high BMI (>25kgm-2)

In addition, dual plane dia. was inaccurate by 1.2mm for each 10mm increase in AAA size compared with CT centreline dia. The difference between 3DUS and CT was less pronounced (0.8mm for each 10mm increase.) The disagreement between dual measurements and CT increased with growing AAA size, and may be a consequence of the small study size.



Would you like to be more involved in the SVT?

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.

SVT roles are wide and varied in both their nature and time commitment. They may be very specific organisational tasks such as arranging practical examiners and recording exam results or a more responsive role such as reviewing new NICE guidelines or surveying members on a particular topic.

Typically members attend 3-4 meetings per year in London (expenses are paid). Being involved is interesting, great team work and a really fantastic opportunity to make new contacts and learn from colleagues.

At this time we are just asking for your "expression of interest" by September 1st. Further details will then be available during September/October on any specific roles available.

Please email the following details to newsletter@svtgbi.org.uk by September 1st:

Expression of interest to become more involved in the SVT from November 2015:
Name:
Membership number:
Hospital/department:
Email:
AVS: yes/no

Trainee Competition Summer 2015

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.**
B. **What are the possible causes of the patient symptoms?**
C. **List at least two questions you could ask the patient to assist in the investigation**
D. **What are the possible treatment options?**

Please send answers to Siobhan Meagher, Chair of the education committee on:

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

The winner will receive a £25 book token and have their answers printed in the Summer newsletter.

CPD Questions

Summer 2015

The following questions are taken from the NICE pathway for Stroke, taken from pathways.nice.org.uk

Questions

ASSESSMENT

1. What ABCD2 score indicates a high risk of stroke or crescendo TIA?
2. A patient is deemed to be high risk of stroke using the ABCD2 scoring system, what time-frame should they receive a specialist assessment?
3. What time-frame would a patient expect to receive specialist assessment if they present more than one week after symptoms have resolved or have an ABCD2 score of ≤3?
4. What group of patients should still be considered high risk of stroke even though they have an ABCD2 score of ≤3?
5. Which patient population may be high risk of stroke, but are not suitable for assessment using ABCD2 scoring system?
6. What group of patients should still be considered high risk of stroke even though they have an ABCD2 score of ≤3?
7. In what time-frame should acute stroke patients admitted to hospital have their swallowing capabilities assessed?

IMAGING

8. When patients have a clinically confirmed acute stroke, state two factors that would indicate 'immediate brain imaging' required?
9. What defines immediate?

THROMBOLYSIS

10. What two conditions must be met before thrombolysis is considered?
11. What drug does NICE recommend for thrombolysis?
12. What cost range does NICE present for a course of the recommended thrombolysis drug?

CAROTID ENDARTERECTOMY

13. After specialist assessment a patient is considered a suitable candidate for carotid endarterectomy, what time-frame from onset of symptoms should the patient undergo carotid imaging?

REHABILITATION

14. Name three specialities within the multi-disciplinary stroke rehabilitation team.

Please forward your answers along with your full name and SVT membership number to heather@vascularsoltions.co.uk

Closing Date: September 30th 2015

Answers to Questions for the Winter 2015 newsletter

1. 2D methods of assessment of a stenosis is susceptible to a variety of technical and hemodynamic factors, meaning the technique is operator -dependent and may vary further between different machines and manufacturers
2. 2 s
3. 15
4. Heavy calcification and acoustic shadowing
5. Computerized Tomography Angiography, Magnetic, Resonance Angiography and also 18-FDG Positron Emission Tomography have focused on the evaluation of the "plaque metabolic activity"
6. A plaque was considered ulcerated, when an excavation >= 2mm was observed
7. Vascularization was not detected in the hyperechoic with acoustic shadow calcific tissue, nor in the hypoechoic nerotic and hemorrhagic areas
8. At present, a method of a real numerical objective quantification of the global "plaque perfusion" is indeed not available for carotid plaques.

Physics Wordsearch

P	A	X	I	A	L	P	Y	A	S	F	S
S	P	P	E	R	I	O	D	F	I	I	C
C	H	R	O	K	E	U	U	P	T	N	A
A	H	F	O	D	L	I	T	E	S	A	V
N	U	R	R	T	I	E	Y	S	V	M	I
O	H	E	I	R	J	Z	P	I	T	P	T
N	I	Q	U	S	H	O	A	X	G	I	A
E	S	U	R	R	T	Y	R	T	B	E	T
G	E	E	K	B	R	I	T	E	I	Z	I
A	S	N	E	L	L	S	A	E	R	O	O
P	A	C	H	A	N	E	S	N	Y	O	N
E	N	Y	Q	U	I	S	T	T	S	W	E

-Technique employed to reduce side lobe artefact
-The inverse of frequency
-Doppler's 1st name
-Speed of sound divided by wavelength
-The ------- limit is defined as twice the Dopper frequency
-If the radius of a long rigid tube is halved, resistance to flow increases by ----------- times.
-The angle at which waves are refracted can be described by --------- Law.
-Reducing spatial pulse improves ------- resolution.
-Scanning with a s high mechanical index increases the risk of -----------.
-Ultrasound transducers rely on the ------electric effect to produce sound waves.
-The anount of time a transducer spends transmitting ultrasound is described by the -------- factor.

Executive Committee Meeting Summary

April 2015

Conference: The layout of the AGM has been discussed, the event company to be used (Fitwise).
The VS are very keen on more collaboration and integration of all of our meetings and have proposed that all of our meetings go under the one registration site/platform and all handled by the events company.

To aid integration and make it overall cheaper and more accessible to our members they suggested a flat fee to allow access to all 3 days (effectively ridding the double registration system). One fee for our members pitched at approximately £180.
The nurses and doctors would also have all access, so if they wanted they could come into the SVT auditorium to hear a presentation.

SVT are going to ask that our workshop is supported by them again this year with recruiting the ultrasound companies and the events company helping with its organization.

Website: Four jobs have been advertised since New Year. Following a website/database meeting with Ian the members search is being restored on the website.

Education Committee: Study days – Revision days this year were held in Coventry on the 31st and 1st of April. There was a full complement of tutors for the technology day, but we were short one tutor on the physics day. MB gave a lecture on the Quality Assurance and Safety aspect syllabus at the end of the revision day to cover this section.
There was mixed feedback from this session some would have preferred a more tutorial like session but others found this an informative session.
The Coventry venue had good facilities and the layout worked well on the day.
From the physics day feedback for most candidates felt it was the right time for the study day and the majority of candidates had commenced their study before attending the tutorial day.
Currently awaiting the technology feedback forms.

Fundamentals study days will be held again in January 2016 with hopefully an advanced study day been held in October time.

Venous Forum: We are not taking part in the venous forum this year. SM is still currently waiting to fill this role on the Education committee. AD will attend the venous forum meeting in May as a representative of the Education Committee.

Exams: to be held on 11th May. The number of candidates sitting the physics exam is 45 (4 Ireland). The number of candidates sitting the technology exam is 36 (6 Ireland)

Due to the large of volume of candidates sitting the physics exam we are having two venues in London, one venue will be at the Glenister rooms in Charing Cross and other at the Faraday building at Denmark Hill. The Faraday venue will be used for the overflow of physics candidates.

We have had a request from a candidate requiring extra exam time and the Education Committee have put guidelines in place for future similar requests which are now available on the web. This candidate will sit his exams at the Faraday building and will be allowed 25% extra time.

All invigilators have been recruited Resit Exam date will be the 7th of September. Resit venue will be the Faraday building at Kings, registration will open late June.

Practical exams: 9 candidates have applied so far with 3 passes. One candidate who has applied will need to resit their technology exam as too much time has lapsed since previous sitting. They sat there technology in 2009 and physics 2014

Newsletter: Heather Griffiths has joined the Education Committee as Newsletter Officer. The format of the CPD newsletter questions has changed. This newsletter submission will be based on the NICE guidelines in relation to DVT pathways and treatments. The CPD questions will now be designed to promote members to do more independent research for the answers rather than journal based questions.

CPD: Guidelines for Reflective Practice have been written. This year we would like to make the reflective practice CPD available to all members in addition to the points system for 2015 to let members get used to it, making it compulsory for CPD year 2015/2016. We would like to ask a few members to trial the reflective practice for CPD year 2014/2015 and make their reflective practice forms available on the web for all members to view, so members have examples of the new CPD system.

Education Committee & AGM: Naavalah to be point of contact for the trainee breakout session. The Education Committee members have provided positive feedback in relation to the workshop of TCD imaging and have provided contacts for potential speakers and demonstrators which I will contact shortly. We have at least one volunteer to demonstrate TCD from Coventry. Education Committee to keep the AGM organisers up to date with progress and will collaborate on the formation of information booklets.

Treasurers report: The SVT currently have £70,832.62 in the current account and £86,601.38 in the reserve account.

Professional Standards Commmittee report:
Professional Performance Guidelines continue to be developed and uploaded to website with suitable/relevant sample diagrams/proformas.

- Multiple Protocols have been uploaded.
- Under development:
  - TCD
  - Mesenteric vessel examination
  - Temporal arteritis ultrasound

NICE : MS currently keeping up to date with all things NICE related to SVT. LE attended a NICE scoping workshop on Hypercholesterolemia and hyperlipidaemia on the 15th of January. Feedback has been given to NICE on Lipid management and management of CV disease quality standards.

VASBI: RC has been contacted by a member of the VASBI Exec committee. There has been interest in involving the SVT in future teaching sessions and forums, perhaps at the VASBI AGM in Manchester. VASBI have a new website. They have enquired about putting the SVT PSC AVF guidelines on the website and/or having a link to the SVT website with documents. MS said that it would be preferred that there was a link to the PSC documents on the VASBI website.

Membership: There are currently 450 active members on the database. There is now a facility on the database to archive lapsed memberships and all inactive memberships have now been archived. A number of items are to be updated/added to the website and additional functions to be made available to the membership secretary.

AHCS: To become self-sustaining, the Academy has to generate income. The register will be expected to cover its costs, and although there are challenges around that, it is also essential that there is a reliable and sustainable source of income for one voice work. In the last two years the Academy has attempted to generate income through a number of different routes. The aim of this was to make the Academy self-sustaining. None of the suggested routes has proved fruitful, due to professional bodies having concerns about the potential conflict with their own business activity around registers, and individual membership. Senior colleagues in some of the professional bodies suggested that The Federation of HCS model, had found a way through this dilemma and that this could offer a useful way

forward. This model had relied upon a professional body subscription. At present the proposed subscription is £1.50 per society member.

NSHCS: AC fed back relevant items to the SVT:
Some professional bodies (mainly Cardiology) have asked the School if they can embed their professional exams into OLAT to prevent trainees repeating assessment of the same material. Discussions are being held with Suzanne Chamberlain (Education and Assessment Lead). If this is possible, other professions could be included.

The Biochemistry professional body has a system of mentors for STP trainees who are able to review and assist with progress.

OSFA writing – is progressing well, although offers of help from Vascular Training Officers is disappointing despite my sending an e mail to them all explaining the benefits to host departments of being involved. A few people are contributing and we are on target to have the questions ready for the submission deadline of the end of April.

Accreditation of training departments. Despite asking for the self-evaluation forms to be sent in last July, departments haven't been informed of the outcomes yet. We were informed that this would be given shortly.
A training handbook for host departments will be published later this year on OLAT

Circulation Foundation: The CF have identified certain roles they need to include on their committee these were involved in newsletters, website and social media (for VS, VN and VT) and in corporate funding. After consideration by the exec committee it was felt thst these roles amounted to a more full time commitment which could not be given by the SVT.

Executive Committee Meeting Summary

June 2015

Conference: EW and DF were in a conference call with Fitwise this week. The proposed new way of integrating the 3 societies for the conference seems to make lots of sense. We need to ensure that the SVT do not lose out financially with this and have discussed proposed costs with Fitwise. A model was suggested in which the VS pays a set cost to the SVT and collects all revenue and pays all costs. A structure of maximum payments which can be claimed for committee and speakers' expenses would also have to be agreed.
Proposed fees for an integrated conference would be:

1 day	£110
2 or 3 days	£140-150

Late registration (within 1 week of conference) would incur an extra charge of £100 on top of the above rates.
Fitwise require an up to date list of current members to be sure that appropriate rates are charged.

To aid integration and make it overall cheaper and more accessible to our members they suggested a flat fee to allow access to all 3 days (effectively ridding the double registration system). One fee for our members pitched at approximately £180.
The nurses and doctors would also have all access, so if they wanted they could come into the SVT auditorium to hear a presentation.

SVT are going to ask that our workshop is supported by them again this year with recruiting the ultrasound companies and the events company helping with its organization.

Workshop: Phillips have agreed to provide duplex scanners for the TCD / temporal arteritis study afternoon.
I am working on non-imaging TCD equipment suppliers to bring their kit.
DF has made contact with a leading stroke physician who he hopes will be available to speak at the TCD study day.
DF has also been speaking to two consultants who would be prepared to present the evidence and argue for or against graft and / or stent surveillance. 1 signed up so far.

Website: The website was down briefly due to fees being owed for the domain.
No new content on website. The member search is still to be restored.

Education Committee Report:
Study days – Feedback from the Technology revision study day held on the 1st of April.
Total number of candidates registered for the day was 19 candidates. Out of the 8 feedback forms we received 3 candidates had not started their revision yet and 5 had begun. All candidates felt the revision day had occurred at the right time.
Theory Exams – vouchers for the exam invigilators have been purchased and are in the process of been distributed
Problems with the exam papers: Unfortunately this year we had duplicate questions on the exam papers.
3 on the Physics paper
2 on the Technology paper
The papers had been proof read but were caused by the wrong versions being sent to the printers. Hopefully the implementation of an electronic database to generate the exam papers will avoid this in the future. We are also hoping implementing a second layer or proof reading by an independent non-committee member.

Resit Exams – The resit exams will be held on the 7th September at the Faraday building at Denmark Hill. There will be no Irish venue for the resit exams due to the low number of candidates. Registration will open on the 3rd July and is set to close on 7th August. Poorly answered resit questions will be reviewed at the next Education Committee meeting on the 18th of September.
Marking Scheme and Proof Reading – Due to issues of duplicate questions having been present on this year's exam papers, the Education Committee have been prompted to review our current marking scheme for poorly answered questions /repeated questions or incorrect questions. Current Marking scheme: If a question is found to be ambiguous, incorrect or duplicate we remove this question and each exam candidate receives a point for that question. The paper is still marked out of 100 and the pass mark remains at 70% (70 questions). An alternative scheme has been suggested: That we mark the paper out of the number of good questions remaining i.e. if we decide 2 questions need to be removed we mark the paper out of 98 questions.
Exam Syllabus Review – The exam syllabus will be reviewed by the Education Committee and updated where required. Each committee member will take a section of the syllabus review and make suggestions for updating. Once we have collected the ideas we can then looking into generating new questions for the added topic.
Practical Exams – The Education Committee held a vote on whether to accept letters from previous managers as evidence in regards to scanning numbers obtained abroad. The vote came down in favor of this.
Advanced Study day – Tracey Gall has volunteered to run the Contrast Enhanced Ultrasound advanced study day on the 20th of October.
CPD – We hope to implement reflective practice CPD from August 2015. Before changing our practices an example form will be made available to our members to review. This form will be accessible from the SVT website and will be distributed in an email to all members. The CPD officers will write an article for the next newsletter to explain the process.
AGM Workshop – Volunteers for the workshop as follows; Jennifer Piper - Lecturer on temporal arteritis and practical demonstrator. Davinder Virdee - Practical demonstrator and Physics Lecturer on TCD (To be confirmed). Dr Mahmud Saedon- Vascular Registrar- has been asked to do a talk on temporal bone window arteries incorporating cerebral circulation and its variations. He will also act as a Practical demonstrator. An IVS member of staff will also be able to be practical demonstrator.
Committee Changes – Tom and Mat to step down as Theory Exam officers. Naavalah Ngwa-Ndifor to take over as Technology Officer. Laura Divine will hopefully join committee as Physics exam officer or BMUS/ Venous Forum Rep. Naavalah to directly write to STP graduates to recruit into role of STP representative.

Newsletter: Feedback on the e-newletter was positive however an issue was raised regarding the layout when viewed on PC.

Treasurers report: The SVT currently have £65,849.83 in the current account and £86,601.38 in the reserve account. All expenses are up to date.

Professional Standards Committee report- Performance guidelines update:

- Resting ABPI AND Exercise ABPI: Ready for submission LE to submit to MS.
- TCD Draft: MW has received offers of help from both Carl Tivas and Colin Deane. Colin has submitted some minimal feedback and is having a more detailed look and will get back to MW. Carl Tivas also is reviewing the document with feedback to be sent to MW.
- TA guideline nearing completion. Progress made. MS to make minor changes including addition of pictures then submit.
- Mesenteric guideline is completed. RC has again considered publication, but has come to a firm decision that publication is not worth pursuing and therefore the Mesenteric guideline can be submitted for the SVT website.

NICE: LE spoke about attending the NICE workshop for a new cholesterol drug. Personally and professionally it was rewarding, and LE felt it was good to be involved. LE contributed on a couple of points addressing IMT measurement and also asked some questions about the drug. Nothing else of real relevance to the SVT under development.

VASBI: RC unable to attend VASBI AGM in September. VASBI have not asked for any support for any workshops etc from the SVT. LE mentioned that herself or one of her team may attend.

IQIPS: MS has taken over from Georgina Fenwick on the Accreditation advisory group (ACAG) for IQIPS and attended a meeting in May. MS needs a working group to help with any IQIPS SVT tasks. It was decided that the PSC would take on the role of the ACAG working group (with approval from the exec).

MS was asked to discuss barriers to IQIPS uptake with the working group (currently only 8 labs have registered with the self assessment tool and only 1 is accredited). The following potential barriers were discussed:

- Time - AC spoke of how it should be a departmental process where all members of the team are involved, with each member being given a different responsibility. She explained how it had been a very fruitful experience and how members of the department had developed and flourished as a result of their involvement in the lab self assessment. With the whole team involved, hopefully the time and workload will be shared. LE suggested perhaps an SVT IQIPS forum could be developed to share experiences.
- Cost – MS mentioned that securing finance for IQIPS in Cambridge was proving difficult with money very tight. Members agreed this was somewhat an NHS wide problem. It was suggested that a good

business case was key to obtaining funding. LE suggested perhaps an SVT template business case for IQIPS. The group felt this was a very good idea (perhaps something the PSC could develop) MS to discuss this with the SVT Exec and ACAG.

- Questioning the need/change – MS stated that a number of labs may feel they already do a very good job and offer a good service so may be resistant to change or question the need for it. As mentioned above Alison spoke of how positive an experience it was for the department and perhaps if it was marketed in this way there may be a greater uptake. AC also mentioned that in the future any SVT trainees may only be allowed to be placed at UKAS accredited labs.
- Still a relatively new project- RC mentioned that labs want to see how others get on first before they become involved with the process, the advantage being that the process has become more streamlined and any problems have been ironed out.

MS mentioned the Level A (aspirational, level B is accreditation standard) standards for Vascular Science needs to be developed by the PSC (as the ACAG working group). A template of the level A standards is nearing completion from cardiology from which the Vascular level A's will be developed.

MS was also asked to discuss any relevant SVT related patient groups which may be contacted to be made more aware of IQIPS. The group came up with the following list:

- Circulation Foundation
- Stroke
- Diabetes UK
- Thrombosis UK
- National Kidney Foundation
- National Kidney Federation

Membership: We currently have 453 members. There have been no new members this quarter. We had some inquiries in May but SC suggested they wait until June to take advantage of the 3 months free membership so hopefully there will be more new members soon. There is currently one member awaiting approval.

New Subscriptions - These have been added to the database and for the coming year and euro prices amended in line with the exchange rate on 1st June. These have been amended on the website accordingly for new members and renewals. All appropriate standing order forms and renewal forms have been amended and uploaded to the website.

Code of conduct – A tick box has been added to the website for members to tick to say that they agree to abide by the code of conduct. This has also been added to the renewal form and new member application form.

Payment shortfalls – The ability to alter the amount paid on the database if different from that due has been reinstated.

Membership numbers – Members previously needed to wait until they had their new member welcome letter before they received their membership number. This caused an issue when applying for exams and study days. Membership numbers are now inserted into the approval email.

Helpdesk email address – A helpdesk email address has been set up for contacting Ian at Portland Data. Copies of emails to and from this address will be stored in the gmail account as well as being in the senders email account. This means that website, CPD and membership can all review faults that have been reported.

Database dashboard not fully functioning – Following the downtime of the website and database the dashboard was not fully functioning. It was showing no members on the graph and there was no record of anyone logging in for 3 weeks. Dashboard now up and running but graph still showing no members.

CASE: BSE are leaving CASE at the end of their subscription year. They feel that the strategic direction for the training of echocardiography and other professions Allied to Medicine lies with NHS England They say that NHS England will be the primary accrediting body, responsible for strategic developments and governance of training. BSE also state that accreditation processes involving clinical competence in scanning will need NHS England approval.

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