



30TH ANNIVERSARY

THE SVT 1992-2022



SVT AGM Brighton

The Society for Vascular Technology
of Great Britain & Ireland

Annual Scientific Meeting 2022

Celebrating 30 years of the SVT

President's Welcome



First and foremost, I would like to extend a very warm welcome to all of you here today, at the Vascular Societies Annual Scientific meeting 2022.

We are delighted to be hosting this year's meeting in the newly refurbished Hilton Brighton Metropole hotel and hope you thoroughly enjoy the great variety of talks running in parallel over the next few days.

I would like to thank the Vascular Society, EBS events and the entire ASM committee, chaired by Douglas Orr, for their hard work in planning such a large event for all the societies.

Our dedicated Conference secretary, Steven Rogers, has worked tremendously hard with the support of the Executive committee and his shadow secretary, Klaus Bond, to deliver an exceptional two-day program. Steven's ambition, drive and enthusiasm for research has pushed the SVT program to a full two-day event, hosting prestigious national and international speakers.

The SVT program starts on Wednesday morning with an advanced skills workshop, covering complex conditions such as Thoracic Outlet syndrome and Popliteal artery entrapment. In the afternoon we have two sessions, the first covering up to date information on AAA and EVAR, and secondly our Vice President Symposium on Deep Venous Interventions.

Following directly after, we will host a heads of service meeting covering important topics and considerations for the future of Vascular science and the wider healthcare workforce, we shall then join the Vascular Society's welcome reception.

This year will be the 30th Anniversary of the SVT, a huge achievement and one we intend to celebrate! The SVT will host an anniversary party for all SVT members at Shelter Hall, Kings Road Arches BN1 1NB, a beachfront location offering stunning views and only a short stroll from the conference venue. Buffet dining and drinks will be provided from 7:30pm to 09:30pm, please make sure to come join us.

Thursday's scientific session is always thought provoking, showcasing exciting new research work from our community which will no doubt inspire and hopefully spark interest in your own research project.

We are delighted to welcome Professor Brendan Cooper, President of the Academy for Healthcare Science to our annual scientific meeting. He will discuss the future healthcare science workforce and the importance of equivalence. Following this we shall debate whether STP graduates should gain AVS accreditation and why.

Professor Peter Rothwell MD PhD FRCP, Head of the Centre for the prevention of Stroke and Dementia at Oxford University, will deliver our Jackie Walton memorial lecture at 4pm on Thursday, a very fitting choice as one of Jackie's former work colleagues. Prof. Rothwell's research has been instrumental in improving clinical services for prevention of stroke, particularly after transient ischaemic attack and minor stroke and in selection of patients most likely to benefit from carotid surgery.

As always, our ASM will cover the work of all the committees and our ambitions for 2023, following this we will hold the awards ceremony before the close of the meeting.

May I take this opportunity to thank you all for attending, I hope you have a fantastic meeting, networking with colleagues and friends, while learning new and exciting advances in Vascular science and surgery.

Warmest wishes for the festive season and New Year.

Emma and the SVT committees.

Emma Waldegrave *AVS MSc*

President of the SVT GB&I

2021-2023

Wednesday 23rd November Programme

REGISTRATION OPENS

Room – Regency

09:00 WELCOME

Emma Waldegrave, SVT President

09:00 - 12:00 ADVANCED SKILLS WORKSHOP

(Vascular Entrapment Syndromes & Sport Injury) A live hands-on ultrasound session supported by theory on:

Thoracic Outlet, Popliteal Artery Entrapment, Median Arcuate Ligament Syndromes and External Iliac Artery Fibrosis.

12:00 - 13:00 LUNCH AND EXHIBITION - Served in the main exhibition hall

13:00 - 14:00 RESEARCH PROPOSAL ABSTRACT PRESENTATIONS

14:00 - 15:00 LATEST TRIAL EVIDENCE IN AAA & EVAR SURVEILLANCE

Assoc. Prof. Kim Bredahl, ESVS & University of Copenhagen, “3D Vascular Ultrasound”

Dr Kamran Modaresi, SVTGBI Vice President, “Co-Detect Study”

Prof. George Antoniou, University of Manchester, “Compliance with endovascular aneurysm repair surveillance: The EVAR surveillance paradox”

Assoc. Prof. Regent Lee, University of Oxford, “Abdominal Aortic Aneurysm as a pathology with systemic phenotypes – insights from ultrasound imaging”

15:00-15:30 COFFEE BREAK - Served in the main exhibition hall

15:30 -16:30 VICE PRESIDENTS SESSION - Deep Venous Intervention

Emma Wilton, Oxford University Hospitals NHS FT, “Mechanical thrombectomy in deep venous thrombosis”

David Greenstein, London North West University Healthcare NHS trust, “Pros & Cons of venous stents”

Dr Peter Schnatterbeck, London North West University Healthcare NHS trust, “IVUS and deep venous stent deployment from a Radiologists perspective”

Vikki Galgerud, Northern Care Alliance NHS FT, “Deep Venous Disease - Assessment & Surveillance”

17:00 - 18:00 SVT HEADS OF SERVICING MEETING

18:00 - 20:00 VASCULAR SOCIETY WELCOME RECEPTION

Drinks served in the Exhibition Hall

19:30 SVT DRINKS RECEPTION

Shelter Hall, Kings Road Arches BN1 1NB

<https://www.shelterhall.co.uk>

STUDENT RESEARCH PROPOSALS

<p>How often should popliteal artery aneurysms be scanned? A 5-year retrospective local dataset analysis to determine mean growth rate of popliteal artery aneurysms.</p>	<p>Sandra Piatkowska, Trainee Vascular Scientist, Gloucestershire Hospitals NHS FT</p>
<p>An application of artificial intelligence assisted software in reporting vascular ultrasound: A feasibility study.</p>	<p>Elizabeth Washak, Trainee Vascular Scientist, Guys & St Thomas' NHS FT</p>
<p>An audit to determine whether patients receive two forms of carotid imaging pre-operatively when carotid endarterectomy (CEA) is being considered, in line with the European Society for Vascular Surgery (ESVS) 2017 Clinical Practice Guidelines.</p>	<p>Emily Anderson, Trainee Vascular Scientist, Cambridge University Hospitals NHS FT</p>
<p>Measurement of claudication distance in patients with peripheral arterial disease using Google Maps Imagery (Google Street View TM).</p>	<p>Zina Benbia, Trainee Vascular Scientist, University Hospitals Birmingham</p>
<p>The prevalence of positive lower limb DVT outcomes in patients with lower limb cellulitis: a retrospective analysis and service evaluation.</p>	<p>Gabriel Santos, Trainee Vascular Scientist, Royal Free London NHS FT</p>
<p>A local service evaluation exploring patients' perceptions of their inpatient care after endovascular or open surgical intervention for Abdominal Aortic Aneurysms (AAAs)</p>	<p>Anna Corby, Trainee Vascular Scientist, Oxford University Hospitals NHS FT</p>

Thursday 24th November Programme

REGISTRATION OPENS

Room – Regency

09:00 WELCOME

Emma Waldegrave, SVT President

09:00 – 10:10 RECENTLY COMPLETED STUDY ABSTRACT PRESENTATIONS

10:10 – 10:30 KEYNOTE SPEAKER

Prof. Ross Naylor, Emeritus Professor of Vascular Surgery, University of Leicester,
“Something Old, Something New, Something Borrowed and Something Blue”

10:30-11:00 COFFEE BREAK - Served in the main exhibition hall

11:00 – 13:00 SCIENTIFIC & CASE STUDY ABSTRACT PRESENTATIONS

13:00 - 14:00 LUNCH AND EXHIBITION

14:00 – 15:30 SVT DEBATE, KEYNOTE AND INVITED SPEAKERS

“Education, accreditation and equivalence round-up”

Dr Colin Deane, Kings College London, “From specialist interest to core service, where next for the vascular laboratory?”

KEYNOTE

Prof. Brendan Cooper, AHCS President, “The future healthcare science workforce and equivalence”

THE GREAT DEBATE

“STP graduates MUST get AVS accreditation”

For the motion: **Emma Waldegrave**, SVTGBI President

Against the motion: **Rob James**, STP graduate and SVTGBI Website Secretary

INVITED SPEAKERS

Assoc. Prof. Kim Bredahl, Copenhagen, “US education in Denmark and across the ESVS”

Dr Kamran Modaresi, SVTGBI Vice-President, “Recommended Scan Times: Analysis from the Heads of Service submissions”

Benjamin McQuillan & Latoya Woolery, UKAS, “The importance of UKAS accreditation and IQIPS Q&A”

15:30-16:00 COFFEE BREAK - Served in the main exhibition hall

16:00-16:50 JACKIE WALTON LECTURE AND INVITED SPEAKER

Prof. Peter Rothwell, Professor of Clinical Neurology, University of Oxford, “Do we really need to re-do the trials of carotid endarterectomy versus medical treatment for symptomatic carotid stenosis?”

Dr Crispian Oates, Retired Chief Vascular Scientist, “Advanced Vascular Technology - or what ultrafast ultrasound can do for vascular scans”

16:50-17:00 ANN DONALD AWARD, PRIZE GIVING & HONORARY MEMBERSHIP

17:00 ANNUAL GENERAL MEETING & TRAINEE BREAKOUT SESSION

1930-0000 GALA DINNER

Brighton Hilton Metropole – Oxford suite

RECENTLY COMPLETED RESEARCH BY NEWLY QUALIFIED CVS

<p>Can the toe brachial index be used to grade the severity of peripheral arterial disease?</p>	<p>Harry Knight, Trainee Clinical Scientist, Cambridge University Hospitals NHS FT</p>
<p>Peripheral bypass graft surveillance: a survey examining current practice in vascular laboratories across the United Kingdom</p>	<p>Rhodri Furlong, Clinical Vascular Scientist, St Georges University Hospital NHS FT</p>
<p>The clinical efficacy of vascular screening prior to kidney transplantation.</p>	<p>Louis Alexander, Clinical Scientist, Kings College Hospital</p>
<p>Do patients enrolled within the iliofemoral venous stent surveillance programme continue to report increased quality of life and venous symptom resolution?</p>	<p>Alexander Pason, Trainee Vascular Scientist, Cambridge University Hospitals NHS FT</p>
<p>A local evaluation of manual and automated Ankle Brachial Pressure Index techniques currently available within the Vascular Studies Unit.</p>	<p>Conor Hiscocks, Trainee Vascular Scientist, Oxford University Hospitals NHS FT</p>
<p>The effect of health literacy and socio-economic deprivation on outcomes after lower limb revascularisation surgery for Chronic Limb Threatening Ischaemia.</p>	<p>Chloe Bishop, Trainee Vascular Scientist, Newcastle Upon Tyne Hospitals NHS FT</p>
<p>Transthoracic ultrasound evaluation of thoracic aortic aneurysms.</p>	<p>Hannah Davey, Trainee Vascular Scientist, University Hospital Southampton</p>

SCIENTIFIC AND CASE STUDY PRESENTATIONS

Estimating & comparing the performance, clinical effectiveness, and cost-effectiveness of current diagnostic options for patients that present to primary care with suspected venous ulcers.	Emma Flint, Clinical Vascular Scientist, Imperial College Healthcare NHS Trust
Prediction of arteriovenous fistula maturation outcomes in end-stage renal disease patients, using invasive and non-invasive techniques.	Wael Faqih, Vascular Ultrasound Clinical Researcher, Imperial College Healthcare NHS Trust
Implementing a rapid access diagnostic service for patients with suspected giant cell arteritis.	Georgina Parsons, Clinical Vascular Scientist, Royal Free Hospitals NHS Trust
“DVT or not DVT.” Leiomyosarcoma misdiagnosed as a Femoral Deep Vein Thrombosis (DVT).	Louis Alexander, Clinical Vascular Scientist, Kings College Hospital
Can Artificial Intelligence detect carotid arterial disease through Duplex ultrasound?	Nikolas Sanoudos, Lead Clinical Vascular Scientist, Mid and South Essex NHS Foundation Trust
Utility of duplex ultrasound in establishing extra-cranial large vessel inflammation and peripheral arterial complications in systemic large vessel vasculitis.	Ben Warner-Michel, Vascular Scientist, Salford Royal Infirmary, Northern Care Alliance NHS FT
An ultrasonic assessment of inner to inner and outer to outer diameter measurement of the abdominal aorta. A 10-year perspective from an abdominal aortic aneurysm screening technician.	Husnayya Al-Haddad, AAA Screening Technician, Imperial College Healthcare NHS Trust
Systematic review of duplex versus clinical surveillance after endovascular treatment of lower limb peripheral arterial disease.	Mervyn McKenna, Clinical Vascular Scientist, Mid and South Essex NHS Foundation Trust
A contemporary retrospective series examining the impact of duplex surveillance on autogenous, peripheral bypass grafts.	Rhodri Furlong, Clinical Vascular Scientist, St Georges University Hospital NHS FT
A reflection of measuring and applying qualitative approaches to a Vascular Ultrasound Lab.	Nicholas Zakikhani, Principal Clinical Vascular Scientist, St Georges University Hospital NHS FT

Trainee Breakout Programme

Thursday 23rd November

Room – Lancaster room

1700-1715 REVIEW OF THE SVT TRAINING PATHWAY

Review of the process of gaining your AVS and maintaining it beyond accreditation

1715-1730 SURVEY OF TRAINING EXPERIENCES

Interactive session to assess the provision of training across centres

1730-1745 TRAINEE DISCUSSION AND QUESTIONS

Open discussion regarding training and questions to the education team

1745 SIGNPOSTING AND CLOSE

Close of session including contact details for committee and signposts for trainee wellbeing

Wednesday 23rd November

Room - Regency

Advance Skills Workshop

Vascular Related Entrapment Syndromes & Sport Injury

A live hands-on ultrasound session supported by theory on:
Thoracic Outlet, Popliteal Artery Entrapment, Median Arcuate Ligament Syndromes and
External Iliac Artery Fibrosis.

09:00 - 09:02 INTRODUCTION BY CHAIRS

09:02 – 09:09 **Daniel Rimmer**, *Clinical Vascular Scientist*, Royal Liverpool University
Hospitals NHS Foundation Trust
“Duplex assessment of Thoracic Outlet Syndrome”

09:09 – 09:16 **Dr Steven Rogers**, *NIHR Clinical Lecturer & Hon. Senior Clinical Vascular
Scientist*, Manchester Vascular Centre, The University of Manchester & Manchester University
NHS FT.
“Duplex assessment of Median Arcuate Ligament Syndrome”

09:16 – 09:23 **Rhodri Furlong**, *Clinical Vascular Scientist*, St Georges Vascular Centre, St
Georges NHS Foundation Trust.
“Duplex assessment of External Iliac Artery Fibrosis”

09:23 – 09:30 **Dr David Barrett**, *Clinical Vascular Scientist*, IVS Ltd, Manchester University
NHS Foundation Trust.
“Duplex assessment of Popliteal Artery Entrapment Syndrome”

09:30 – 10:30 Hands on practical scanning

10:30 – 11:00 COFFEE BREAK
Served in the main exhibition hall

11:00 – 11:45 Hands on practical scanning

11:45 – 12:00 **David Murray**, *Consultant Vascular Surgeon & Cardiovascular Director*,
Manchester University NHS FT.
“Surgical management of TOS, MALS, EIEF and PAES”

12:00 SESSION CLOSE

12:00 – 13:00 LUNCH AND EXHIBITION
Served in the main exhibition hall

Research Proposals by Trainee Vascular Scientists

Sandra Piatkowska

Trainee Vascular Scientist - Gloucestershire Hospitals NHS Foundation Trust

“How often should popliteal artery aneurysms be scanned? A 5-year retrospective local dataset analysis to determine mean growth rate of popliteal artery aneurysms.”

Miss Sandra Piatkowska¹

¹Gloucestershire Hospitals NHS Foundation Trust, Gloucester, UK

Objectives:

Popliteal artery aneurysm (PAA) occurs in around 0.1-3% of adults, mostly men. Duplex ultrasound (DUS) is used to monitor these aneurysms to determine growth and when to offer treatment. Currently, there is no consensus reached in the research on PAA growth rate and the optimal surveillance frequency. This study aims to calculate the average growth rate of PAA with the prospect to better define surveillance intervals. The secondary aims are to investigate if factors like abdominal aortic aneurysm (AAA), hypertension, diabetes, being a smoker or taking certain medications are linked to an altered PAA growth rate.

Methodology:

Local data will be collected retrospectively and will include PAA patients who have had at least 2 DUS scans between 01/01/2017 and 01/01/2022. Aneurysm size, presence of thrombus and surveillance intervals will be recorded from DUS reports. Clinical letters from the initial vascular consultation will be reviewed to record data linked to the secondary aim investigations. Linear regression will be used to statistically analyse the data.

Future Implications:

The study will offer additional data on PAA growth rate, allowing for better defined surveillance intervals. This will give a more robust and effective local surveillance protocol, ensuring timely treatment and preventing unnecessary scans.

Elizabeth Washak

Trainee Vascular Scientist - Guy's and St Thomas' NHS Foundation Trust

**“An application of artificial intelligence assisted software in reporting vascular ultrasound:
A feasibility study.”**

Miss Elizabeth Washak¹, Dr Soundrie Padayachee¹, Dr Nicholas Thomas¹, Mr Ashish Patel¹

¹*Guy's and St Thomas' NHS Foundation Trust, London, United Kingdom*

Background:

Duplex ultrasound (DUS) is the first line non-invasive assessment for peripheral arterial disease. Interpreting duplex images is time-consuming and subject to operator variability. Artificial intelligence (AI) has gained popularity in medical imaging but application to DUS has been mainly directed to the carotid arteries. This project will evaluate the feasibility of a novel AI reporting software to assess DUS images from the superficial femoral artery (SFA). Improvements in efficiency, accuracy and reporting time will be investigated.

Methods:

Propriety software will first be tested in a small group of normal volunteers and this will include mapping of anatomical markers. If successful, the software will be applied to 70 patients' lower limb arterial scans with single lesions pre SFA angioplasty. Agreement between the reports generated, historic reports and computed tomography angiography will be calculated using Kappa Statistics, sensitivity and specificity and ROC-AUC curves. The time taken to produce reports using each approach will be compared using an unpaired t-test.

Outcomes:

The study intends to evaluate if this propriety reporting software has a future clinical application in the vascular department and will determine if a full-scale study is indicated.

Emily Anderson

Trainee Vascular Scientist - Cambridge University Hospitals NHS Foundation Trust

“An audit to determine whether patients receive two forms of carotid imaging pre-operatively when carotid endarterectomy (CEA) is being considered, in line with the European Society for Vascular Surgery (ESVS) 2017 Clinical Practice Guidelines.”

Miss Emily Alderson¹

¹Cambridge University Hospitals NHS Foundation Trust, Cambridge, United Kingdom

Introduction:

The 2017 ESVS Clinical Practice guidelines state two forms of imaging are recommended pre-CEA; this can be a combination of duplex ultrasound (DUS), computed tomographic angiography and magnetic resonance angiography, or two DUS performed by different operators.

Methods:

Data was collected retrospectively from the National Vascular Registry to identify patients who underwent CEA between January 2019-December 2021 (n=205). No exclusion criteria were applied. EPIC electronic patient record system was used to obtain relevant data from patients' files including: pre-CEA imaging modalities, complications, outcomes, and patient demographics. Data will be analysed using descriptive statistics and chi squared and Mann-Whitney statistical tests.

Results:

Between January 2019-December 2021, 87.3% of patients met the ESVS guidelines. Of the 12.6% who did not comply with the guidelines; 80.8% received one form of imaging and 19.2% received two DUS performed by the same operator.

Conclusion:

No single reason was identified to explain non-compliance with the 2017 ESVS guideline. Results were disseminated to all interested stakeholders and a common point for intervention in the patient pathway was identified. A six-month time lapse (June-December 2022) before re-auditing will enable assessment of the effectiveness of interventions to improve guideline compliance.

Zina Benbia

Trainee Vascular Scientist - University Hospitals Birmingham

“Measurement of claudication distance in patients with peripheral arterial disease using Google Maps Imagery (Google Street View™).”

Zina Benbia¹, Mr Maciej Juszcak¹

¹*University Hospitals Birmingham, Birmingham, United Kingdom*

Intermittent claudication is the most common presentation of lower limb peripheral arterial disease, occurring because of muscle ischemia during exercise caused by limited arterial flow. Intermittent claudication presents as cramping, occurring at a reproducible distance when walking on a level surface and is relieved by rest. The distance and time to limiting symptoms is reproducible, therefore patients tend to remember key landmarks that they can walk between before experiencing claudication symptoms. Establishing claudication distance during initial assessment of PAD in clinical practice may be taken through patients being encouraged to estimate their claudication distance which will be reported as self-reported in the patients' clinical notes. However, the accuracy of this distance based on self-reporting is poor. In other clinical settings a corridor walking test is used to estimate exercise and claudication distance in a more accurate way. However, these tests are not always possible to complete in a vascular assessment setting due to lack of time and staff. Proposed that using Google Maps can be an effective way of estimating claudication distance through asking patients to recall common landmarks in the areas of where they live to calculate the distance, they are able to walk between these before experiencing symptoms.

Gabriel Santos

Trainee Vascular Scientist - Royal Free London NHS Foundation Trust

“The prevalence of positive lower limb DVT outcomes in patients with lower limb cellulitis: a retrospective analysis and service evaluation.”

Mr Gabriel Santos¹

¹Royal Free London NHS Foundation Trust, London, United Kingdom

According to NICE guidelines, a diagnostic ultrasound duplex is urgently required within 24 hours of a suspected deep vein thrombosis (DVT). The 2-level DVT Wells score is used to predict for a DVT by identifying clinical features including calf swelling, pitting oedema, and tenderness along the deep venous system. Cellulitis of the lower limb often presents with signs and symptoms similar to that of a lower limb DVT (LLDVT), so patients with cellulitis may also be referred for a ?DVT duplex.

The proposed hospital service evaluation will identify how often patients with lower limb cellulitis have a concurrent LLDVT.

Using the hospital's electronic health records system, data will be acquired from between the years 2021-2022 to identify patients with cellulitis who were referred for a ?DVT duplex. This data will be analysed to compare the associated prevalence of positive versus negative LLDVT outcomes in patients with cellulitis.

A chi-squared test will be performed to ascertain any statistically significant difference, which may highlight the need for reassessing the cost-effectiveness of ?DVT referrals in patients with cellulitis, or warranting a novel clinical prediction rule that is more suitable than the 2-Level Wells score at predicting a LLDVT in patients with cellulitis.

Anna Corby

Trainee Vascular Scientist - Oxford University Hospitals NHS Foundation Trust

“A local service evaluation exploring patients’ perceptions of their inpatient care after endovascular or open surgical intervention for Abdominal Aortic Aneurysms (AAAs)”

Miss Anna Corby¹, Mr Klaus Bond¹

¹*Oxford University Hospitals NHS Foundation Trust, Oxford, United Kingdom*

Introduction

Positive patient experiences are associated with better outcomes for patients, including reduced hospitalisation and adverse events. There is little published data on the inpatient experiences of patients after open or endovascular abdominal aortic aneurysm (AAA) repair. Therefore, this evaluation hopes to understand the current post-operative experiences of AAA patients at this Trust.

Methods

This evaluation will use a mixed-methods prospective approach. Participants from both intervention groups will complete a qualitative questionnaire after discharge, which asks open-ended questions about their experiences. They will additionally complete the validated Picker Patient Experience 15-item quantitative questionnaire (PPE-15), which identifies the percentage of patients recognising a problem with elements of their care. A subset of participants will complete a semi-structured interview to discuss their care in greater depth.

Results

The qualitative data from the questionnaires and interviews will be analysed thematically using NVivo software. The proportions of patients identifying a problem for each PPE-15 item will be compared between the open and endovascular groups using the Pearson chi-squared test.

Conclusion

The results of this evaluation will aim to identify positive elements of patient care and any areas for development which could be used to improve the post-operative AAA experiences for patients at this Trust.

Latest trial evidence in AAA & EVAR surveillance

Assoc. Prof. Kim Bredahl,

Associate Prof. of Vascular Surgery, University of Copenhagen & Ultrasound Director, ESVS Academy

“3D Vascular Ultrasound”

Dr Kamran Modaresi,

SVTGBI Vice President

“Co-Detect Study”

Prof. George Antonio,

Professor of Vascular Surgery, University of Manchester

“Compliance with endovascular aneurysm repair surveillance: The EVAR surveillance paradox”

Assoc. Prof. Regent Lee

Associate Prof. of Vascular Surgery, University of Oxford

“Abdominal Aortic Aneurysm as a pathology with systemic phenotypes – insights from ultrasound imaging”

Kim Kargaard Bredahl

Vascular surgeon, Assoc. Professor, and member of ESVS Academy - Rigshospitalet, Copenhagen University and Copenhagen Academy of Education and Simulation, Denmark.

“3D Vascular Ultrasound”



I have always had a great interest in vascular ultrasound, research, and education. My research areas have mainly been 3D ultrasound of AAA, and contrast-enhanced ultrasound for EVAR follow-up.

For almost a decade I have conducted the basic and advanced vascular ultrasound course in Copenhagen, where everyone interested in vascular ultrasound can come and improve their skills. In my role as ESVS academy lead of non-invasive vascular diagnostics I strive for bringing out vascular ultrasound to all Europe.

It is my goal that the European Society of Vascular Surgery, and Copenhagen Academy of Education and Simulation provide hands-on courses/workshops that are practical, and provide learning and training in settings close to daily practice.

My mottoes are “Why not use ultrasound instead of X-rays,” and “We simulate before we do procedures on patients.”

Prof. George Antoniou

*Consultant Vascular & Endovascular Surgeon - Manchester University NHS Foundation Trust
Manchester Academic Health Science Centre (MAHSC) Honorary Clinical Chair - The
University of Manchester*

“Compliance with endovascular aneurysm repair surveillance: The EVAR surveillance paradox”



George Antoniou is a Consultant Vascular & Endovascular Surgeon at Manchester University NHS Foundation Trust and Manchester Academic Health Science Centre (MAHSC) Honorary Clinical Chair at The University of Manchester. He is a member of the European Society for Vascular Surgery (ESVS) Guidelines Steering Committee and served as Clinical Research Lead and Deputy Director of Research and Innovation for the Oldham Care Organization. His academic interest is in aortic aneurysm research, evidence synthesis, and clinical practice guideline development, with a track record of more than 300 peer-reviewed publications. He is Associate Editor of the Hellenic Journal of Vascular and Endovascular Surgery, Editorial Board Member of the Journal of Evidence-Based Medicine, and

Statistical Reviewer for the European Journal of Vascular & Endovascular Surgery. He is the principal investigator for several NIHR portfolio studies and chief investigator for the International Risk Stratification (IRIS) in EVAR study.

Objectives: To compare the survival of patients who attended surveillance after endovascular aneurysm repair (EVAR) with those who were non-compliant. **Data sources:** MEDLINE and Embase were searched using the Ovid interface.

Review methods: A systematic review was conducted complying with the PRISMA guidelines. Eligible studies compared survival in EVAR surveillance compliant patients versus non-compliant patients. Non-compliance was defined as failure to attend at least one post-EVAR follow-up. The risk of bias was assessed with the Newcastle-Ottawa scale, and the certainty of evidence using the GRADE framework. Primary outcomes were survival and aneurysm-related mortality. Effect measures were the hazard ratio (HR) or odd ratio (OR) and 95% confidence interval (CI) calculated using the inverse variance or Mantel-Haenszel statistical method and random-effects models.

Results: Thirteen cohort studies with a total of 22,762 patients were included. Eight studies were deemed high risk of bias. The pooled proportion of patients who were non-compliant with EVAR surveillance was 43% (95% CI 36%-51%). No statistically significant difference was found in the hazard of all-cause mortality (HR 1.04, 95% CI 0.61-1.77), aneurysm-related mortality (HR 1.80, 95% CI 0.85- 3.80), or secondary intervention (HR 0.66, 95% CI 0.31-1.41) between patients who had incomplete and complete follow-up after EVAR. The odds of aneurysm rupture were lower in non-compliant patients (OR 0.63, 95% CI 0.39-1.01). The certainty of evidence was very low for all outcomes. Subgroup analysis for patients who had no surveillance versus those with complete surveillance showed no significant difference in all-cause mortality (HR 1.10, 95% CI 0.43-2.80).

Conclusions: Patients who were non-compliant with EVAR surveillance had similar survival to those who were compliant. The findings question the value of intense surveillance in all patients post-EVAR and highlight the need for further research on individualized or risk-adjusted surveillance.

Regent Lee

*Associate Professor of Vascular Surgery - University of Oxford,
Junior Research Fellow - St Catherine's College Oxford,
UK Research and Innovation Future Leaders Fellow*

“Abdominal Aortic Aneurysm as a pathology with systemic phenotypes – insights from ultrasound imaging”



Brief Bio:

Regent Lee is Associate Professor of Vascular Surgery at University of Oxford and Honorary Consultant Vascular Surgeon at Oxford University Hospitals NHS FT.

His research interest lies in multimodal assessments of vascular diseases with a focus to develop novel biomarkers for disease stratification in abdominal aortic aneurysms.

He is a current awardee of the prestigious UK Research and Innovation Future Leaders Fellowship.

Abstract:

Abdominal Aortic Aneurysms are traditionally viewed and managed as disease of localised aortic dilatation. Insights from ultrasound imaging of brachial artery remote to the aortic aneurysm provide evidence that AAA is a pathology with averse systemic phenotypes. This may be an explanation to the poor cardiovascular outcome observed in AAA patients. Importantly, such systemic phenotypes could be rescued by AAA intervention and be useful to predict the future behaviour of an individual aneurysm such as its growth.

Vice Presidents Session

Advances in Deep Venous Interventions

Emma Wilton,

Consultant Vascular Surgeon, Oxford University Hospitals NHS FT
“Mechanical thrombectomy in deep venous thrombosis”

David Greenstein,

Consultant Vascular Surgeon, London North West University Healthcare NHS trust
“Pros & Cons of venous stents”

Dr Peter Schnatterbeck,

Consultant Interventional Radiologist, London North West University Healthcare NHS trust
“IVUS and deep venous stent deployment from a Radiologists perspective”

Vikki Galgerud,

Senior Clinical Vascular Scientist, IVS Ltd & Northern Care Alliance NHS FT
“Deep Venous Disease - Assessment & Surveillance”

Emma Wilton

Consultant Vascular Surgeon - Oxford University Hospitals NHS FT

“Mechanical thrombectomy in deep venous thrombosis”



Miss Wilton was appointed as a Consultant Vascular Surgeon at Oxford University Hospitals NHS Foundation Trust in October 2017. She is the Clinical Lead for the Department of Vascular Surgery and is the Surgical Lead for the Deep Venous service at Oxford University Hospitals NHS Foundation Trust and the Thames Valley Vascular Network. Miss Wilton completed her medical training at the University of Cambridge. She was awarded an MD in 2007 for her thesis following a period of research at St George’s, University of London. She completed a year as an Endovascular Fellow at St. George’s Hospital, London and St. Thomas’ Hospital, London in 2016. Following completion of higher surgical training she undertook a further senior clinical fellowship at St. Thomas’ Hospital, London where she developed a specialist interest in the management and intervention of both deep and superficial venous disease. She is actively involved in clinical research and has an interest in management and education. She is also on the BSET council.

David Greenstein

Consultant Vascular Surgeon - London North West University Healthcare NHS trust

“Pros & Cons of venous stents”



Mr David Greenstein is a Consultant Vascular and Venous Surgeon who has been based in London since 1999. He is an Honorary Senior Lecturer at Imperial College. David specialises in varicose veins, leg ulcers and complex varicose vein treatment and deep vein thrombosis (DVT). He is an international expert on varicose veins, the management and treatment of deep vein thrombosis and leg ulcers and sits on the European Venous workshop faculty.

He graduated at Leeds University in 1989 and has since trained in major vascular units at Nottingham, Sheffield and Adelaide, Australia.

His special interest is the modern management of venous disease varicose veins and Deep Vein Thrombosis (DVT). For treating varicose veins, thread veins and leg ulcers Mr Greenstein offers pioneering laser treatment for varicose veins and varicose leg ulcers including radiofrequency treatment and ClariVein treatment and Glue-ing varicose veins. David also an expertise in varicose veins associated with pregnancy and pelvic veins.

David is also a leader in the modern management of DVT and treating the swollen leg. He has developed modern pathways for restoring legs to normality which often involves stenting and the use of special clot busting drugs (thrombolysis) and mechanical devices that can suck out clot (thrombectomy device).

Dr Peter Schnatterbeck

Consultant Interventional Radiologist - London North West University Healthcare NHS trust

“IVUS and deep venous stent deployment from a Radiologists perspective”



Dr Peter Schnatterbeck is an Interventional Radiologist who graduated from the University of Heidelberg in Germany in 1994 gaining an MD in Physiology. He worked and trained extensively in Europe, both at leading centres in Germany and Berne, Switzerland. In 2003 Peter was appointed a Consultant Interventional Radiologist at London North West University Teaching Hospital. Peter has a particular interest in deep vein disorders of the abdomen, pelvis, and lower legs. He has been involved in developing state of the art treatment for deep vein thrombosis of the legs and abdomen. In addition to deep vein disorders Peter also has an interest in uterine fibroid embolisation and multi-modality cardiovascular imaging.

Vikki Galgerud

Senior Clinical Vascular Scientist - IVS Ltd & Northern Care Alliance NHS FT

“Deep Venous Disease - Assessment & Surveillance”



Vikki is an accredited vascular scientist (AVS) working for Independent Vascular Services (IVS) based at the Royal Oldham hospital, Northern Care Alliance (NCA). Vikki has been a vascular scientist for almost 8 years. Vikki has worked as a clinical applications specialist (CAS), traveling to different countries demonstrating tomographic ultrasound (tUS). Vikki is training lead for all IVS's NCA sites, spanning across 4 hospitals. Vikki has delivered training forums to both trainees, vascular consultants and registrars and has assisted in many varicose vein surgeries, from scanning the limbs prior to intervention and scanning during the surgical procedure. Vikki was part of the team that set up the deep venous stenting service, a new service to Royal Oldham and Manchester.

Abstract:

New advances in venous stenting have been proving beneficial to patients. The timing of venous stent ultrasound surveillance is significant, what we have seen is that if a stent is going to run into complications, it will most likely be within the first 6 weeks, however there is still a risk following this time frame. Duplex surveillance is routinely done on day zero/day 1, 2 weeks, 6 weeks, 12 weeks, 6 months and then annually (adapted if required). If a stent is noted to have formed fresh thrombus, ultrasound can monitor this until it reaches approximately a 50% reduction in luminal diameter. This is time for intervention. Once a stent occludes there is a small window of opportunity to perform lysis and/or venoplasty to clear the thrombus. Hence why the timing of surveillance scans is crucial. This presentation will show you how ultrasound is used as a low cost, fast, non-invasive, and effective tool for venous stent assessment and highlight cases where without the duplex surveillance the risk of stent occlusion is high.

Heads of Service Meeting

Wednesday 23rd November 2022

5pm to 6pm

Agenda

1. Current environment
 - a. What are the most significant challenges we are facing
 - b. Increased workloads
 - c. Staffing levels
 - d. Service structure

2. Vascular Science workforce
 - a. Recruitment and retention
 - b. Current barriers

3. Training and Education in Vascular Science
 - a. Apprenticeships
 - b. STP
 - c. AVS
 - d. CPD for ongoing professional development

4. The NHS England Physiological Science Transformation Programme

5. Equivalence

6. Advanced Consultant level Scientists in Vascular Science

7. AOB

Thursday 24th November

Main Programme Room – Regency

Trainee Breakout Room – Lancaster

Presentations of recently completed
research projects by newly qualified
vascular scientists

Harry Knight

Trainee Clinical Scientist - Cambridge University Hospitals NHS Foundation Trust

“Can the toe brachial index be used to grade the severity of peripheral arterial disease?”

Mr Harry Knight^{1,2}

¹*Cambridge University Hospitals NHS Foundation Trust, Cambridge, United Kingdom,*

²*Newcastle University, Newcastle, United Kingdom*

Introduction:

The toe brachial index (TBI) is an alternative to ankle brachial pressure index as a first line investigation for peripheral artery disease (PAD). There is a lack of established TBI grading criteria for diagnosing PAD and a need for improved evidence-based practice. Aim: To determine the ability of TBI to detect significant and severe PAD and identify appropriate TBI cut-off values.

Method:

This retrospective pilot study identified patients who underwent TBI and duplex ultrasound investigations. PAD severity was graded using the ANGIO score method. The relationship between PAD severity and TBI was assessed and optimal TBI cut-off values were determined for identifying significant (ANGIO score ≥ 1) and severe PAD (ANGIO score ≥ 6).

Results:

Spearman's correlation coefficient demonstrated a strong, negative correlation between TBI and PAD severity ($r(49) = -0.72$, $p < 0.001$) and a moderate, negative correlation between systolic toe pressure and PAD severity ($r(49) = -0.65$, $p < 0.001$). Receiver operating characteristics (ROC) curve analysis demonstrated good ability of TBI in determining patients with significant PAD (area under the ROC curve (AUC) = 0.892) and severe PAD (AUC = 0.820). The optimal TBI cut-off value for severe PAD was ≤ 0.23 .

Conclusion:

This pilot study provides further support for the use of TBI in grading the severity of PAD.

Rhodri Furlong

Clinical vascular scientist - St Georges University Hospital NHS Foundation Trust

“Peripheral bypass graft surveillance: a survey examining current practice in vascular laboratories across the United Kingdom”

Mr Rhodri Furlong¹

¹*St Georges University Hospital NHS Foundation Trust, London, United Kingdom*

The literature surrounding the need for autogenous peripheral bypass graft surveillance is equivocal. The Society of Vascular Surgery (SVS) and European Society of Vascular Surgery (ESVS) endorse surveillance but provide differing recommendations as to when it should be conducted. With the absence of an evidence-based, gold-standard surveillance programme to adhere to, surveillance programmes in the UK anecdotally vary. To improve our understanding of how surveillance is practiced, a survey consisting of 9-questions was disseminated via email to departmental leads in 60 vascular laboratories across the UK.

36 vascular laboratories responded to the survey. Of these, 83% had a formal surveillance programme for autogenous grafts, 14% assessed patients at the discretion of their surgeons and 3% assessed grafts when they became symptomatic. 73% of the formal surveillance programmes were based upon local protocols, whilst 24% and 3% adhered to SVS and ESVS guidelines, respectively. Analysis of the formal surveillance programmes revealed that pre-discharge, 3-months, 6-months, and 12-months post-op were the intervals at which patients were most commonly seen.

The findings of this survey indicate that the surveillance of peripheral, autogenous bypass grafts is variable in vascular laboratories across the UK.

Louis Alexander

Clinical vascular scientist - King's College Hospital

“The clinical efficacy of vascular screening prior to kidney transplantation”

Mr Louis Alexander¹

¹*King's College Hospital, London, United Kingdom*

Background:

The prevalence of Chronic Kidney Disease (CKD) is increasing with an ageing population and vascular comorbidities. Kidney transplantation (KTx) is the gold standard treatment option for advanced CKD. Patients accepted onto a regional transplant list must undergo a comprehensive screening programme, which includes vascular ultrasound of the carotid and iliac arteries. However, guidance on who should receive vascular screening and how this impacts patient care is limited.

Objective:

This audit aims to determine the diagnostic yield of vascular ultrasound in pre-emptive KTx patients and identify significant risk factors that could be used as selection criteria to strengthen screening sensitivity.

Methods:

Retrospective analysis of 955 screening reports. Scan results and specific vascular risk factors were obtained. χ^2 , t-test and logistic regression analysis were used to determine risk factor significance.

Results:

The prevalence of carotid and iliac stenosis was 1.5% (95% CI, 0.88-2.58%) and 1.9% (95% CI, 1.01-2.30%), respectively. Several risk factors were found to be statistically significant with univariable analysis and logistic regression ($p < .05$). Therefore, selective risk factors could be used to mildly improve screening sensitivity.

Conclusion:

This audit provides information about pre-transplant ultrasound screening. Universal screening is inefficient and selective screening based on vascular risk factors should be encouraged.

Alex Pason

Trainee vascular scientist - Cambridge University Hospitals

“Do patients enrolled within the iliofemoral venous stent surveillance programme continue to report increased quality of life and venous symptom resolution?”

Alex Pason¹

¹*Cambridge University Hospitals, Cambridge, United Kingdom,*

²*King's College London, London, United Kingdom,*

³*Leicester University Hospitals, Leicester, United Kingdom*

Objectives:

Currently iliofemoral venous stent patients undergo regular ultrasound surveillance to help preserve stent patency. A service evaluation at Cambridge University Hospitals (CUH) was conducted to see if stent patency is related to venous symptom resolution and quality of life.

Methods:

Questionnaires were sent to 49 eligible patients to measure residual venous symptoms (VEINES-Sym score), quality of life in respect to venous symptoms (VEINES-Qol score) and overall quality of life as determined by the patient (EQ-VAS score). Of the 23 returned questionnaires 11 patients had an occlusion or a >50% in-stent stenosis on their last ultrasound scan and were categorised as diseased while 12 patients had mild or no disease and were categorised as non-diseased.

Results:

Significant correlations existed between VEINES-Qol and EQ-VAS scores (0.63, $P=.002$, $CI=95\%$), and VEINES-Sym and VEINES-Qol scores (0.90, $P<.001$, $CI=95\%$). No significant difference was seen (independent samples t-test) between non-diseased and diseased groups for VEINES-Sym score ($P=.996$, $CI\ 95\%$), VEINESQol score ($P=.400$ $CI\ 95\%$), and EQ-VAS score ($P=.151$ $CI\ 95\%$).

Conclusions:

In-stent disease was not a predictor of either venous symptoms or quality of life.

Connor Hiscocks

Trainee vascular scientist - Oxford University Hospitals NHS FT

“A local evaluation of manual and automated Ankle Brachial Pressure Index techniques currently available within the Vascular Studies Unit”

Mr Connor Hiscocks¹

¹Oxford University Hospitals NHS FT, Oxford, United Kingdom

Ankle-brachial pressure index (ABPI) is a simple assessment used to detect peripheral arterial disease. Recently, automated devices have aimed to reduce training needed and assessment times. By comparing automated air plethysmography ABPI (autoABPI) to manual ABPI (manABPI) and duplex ultrasound, this service evaluation determined whether autoABPI should become the primary method used locally.

Data were collected on assessment duration, brachial pressure, highest ankle pressure and ABPI and compared using paired t-test and Bland-Altman. Arterial duplex results determined sensitivity, specificity, and agreement (see Table).

Twenty-five patients (11 female, 71 ±10 years-old) underwent bilateral manABPI and autoABPI (50 legs, 9 excluded). Twenty-four patients (35 legs) underwent lower-limb arterial duplex. autoABPI were 10 minutes quicker than manABPI. In relation to limits of acceptability (±5 mmHg, ±0.15 ABPI), brachial pressure, highest ankle pressure and ABPI demonstrated poor agreement between methods. Compared to duplex, autoABPI demonstrated 44% sensitivity and 89% specificity, while manABPI demonstrated 91% sensitivity and 100% specificity. manABPI had 100% sensitivity in patients with diabetes or rest pain/ischaemia, autoABPI had 0% (n=8) and 22% sensitivity (n=11) respectively (see Table).

Preliminary findings suggest autoABPI should not be the primary assessment method and further investigation should focus on differences in measuring ankle pressures between populations.

Chloe Bishop

Trainee vascular scientist - Newcastle Upon Tyne Hospitals NHS Foundation Trust

“The effect of health literacy and socio-economic deprivation on outcomes after lower limb revascularisation surgery for Chronic Limb Threatening Ischaemia”

Miss Chloe Bishop^{1,2}, Dr Tamer El-Sayed¹, Dr Bence Baljer¹, Dr James Convill¹, Professor Gillian Rowlands^{1,2}, Miss Rachel Bell¹, Mr Sandip Nandhra^{1,2}

¹Newcastle Upon Tyne Hospitals NHS Foundation Trust, Newcastle upon Tyne, UK,

²Newcastle University, Newcastle upon Tyne, UK

Introduction:

Health Literacy is the ability to obtain, process and understand health-information needed to make health-related decisions. Research has suggested a relationship between health literacy, socio-economic status and health outcomes. This study aims to assess how health literacy and socio-economic status interact for patients undergoing bypass surgery for Chronic Limb Threatening Ischaemia (CLTI).

Methods:

Surgical bypass graft patients were consented for participation in a cross-sectional observational study (REC:21/NI/0092). The HLS19-Q12 questionnaire categorised participant's health literacy as inadequate, problematic, sufficient, or excellent. Socio-economic status was assessed using the Index of Multiple Deprivation (IMD). Primary outcomes were major adverse cardiovascular and limb events.

Results:

Fifty patients (mean age \pm SD: 70 \pm 8.7 years) were included. Participant's health literacy was inadequate (28%), problematic (38%), sufficient (24%) and excellent (10%). 40% lived in areas of highest deprivation. All health literacy groups were comparable for post-operative outcomes, but poorer health literacy was associated with a lower socio-economic status (0.308 (P=0.029)) which was also a significant predictor for amputation (P=0.017).

Conclusion:

This study suggests that a lower health literacy is associated with greater social deprivation which in turn maybe a predictor for amputation following bypass surgery. Health literacy is modifiable through education and may improve potential health inequalities created by social deprivation, addressing a vascular James-Lind Alliance priority.

Hannah Davey

Trainee vascular scientist - University Hospital Southampton

“Transthoracic ultrasound evaluation of thoracic aortic aneurysms”

Miss Hannah Davey^{1,2}, Ibrahim Enemosah¹, Catherine Rogan¹, Puja Patel¹, Ben Patterson¹

¹*University Hospital Southampton, Southampton, UK,*

²*Newcastle University, Newcastle upon Tyne, UK*

Background:

Thoracic aortic aneurysms (TAA) can be asymptomatic and life-threatening if they rupture. They are currently detected using computed tomography (CT) which is expensive and uses radiation. A previous study found that ultrasound has the potential to be used as a diagnostic modality for TAA. However, further validation of this methodology is required.

Methods:

15 patients (9 with TAA and 6 controls) had a single ultrasound assessment of the thoracic aorta performed by a single vascular scientist. The maximum diameter at the ascending aorta, aortic arch, mid and distal descending thoracic aorta was measured and compared to diameters from a CT scan at thresholds of 35mm and 40mm.

Results:

The thoracic aorta was visualised in all 15 patients. At 35mm, the sensitivity and specificity were 100% and 85% and at 40mm it was 78% and 100%. The Bland-Altman plot showed good agreement between ultrasound and CT measurements for the maximum diameter and at the aortic arch, mid and distal descending thoracic aorta.

Conclusion:

There is good visualisation of the thoracic aorta using ultrasound with high sensitivity and specificity at both 35mm and 40mm. Results of this study suggest that ultrasound has a potential to be used to assess TAA.

Keynote Speaker

Prof. Ross Naylor

Emeritus Professor of Vascular Surgery – University of Leicester
Consultant Vascular Surgeon - Leicester Vascular Institute, University Hospitals Leicester NHS Trust.

“Something Old, Something New, Something Borrowed and Something Blue”



Ross Naylor graduated MBChB from Aberdeen University in 1981 (MD 1990) and undertook his surgical training in Aberdeen, Edinburgh, and Leicester. He was appointed consultant vascular surgeon to Aberdeen Royal Infirmary in 1993, before returning to Leicester in 1995. He is currently Professor Emeritus of Vascular Surgery at the Leicester Vascular Institute and is a Past-President of the Vascular Society of Great Britain and Ireland (VSGBI; 2011-2012). He has co-edited three textbooks of vascular surgery and co-authored 536 publications and 77 book chapters. His specialist clinical and research interests relate to carotid and cerebral vascular disease.

Professor Naylor served on the Councils of the VSGBI, (2006-2012), the European Society for Vascular Surgery (ESVS; 2010-2016) and the World Federation of Vascular Societies (2018-2021). He has served on the Editorial Boards of the British Journal of Surgery (2000-2005), the Journal of Vascular Surgery (2003-2008; 2016-2020) and the European Journal of Vascular & Endovascular Surgery (EJVES; 2006-2016). He is a past Senior Editor (2010-2013) and Editor-in-Chief of EJVES (2013-2016) and was awarded honorary ESVS membership in 2018. He has also served as chairman of the 2018 and 2023 ESVS clinical practice guidelines on the management of carotid and vertebral artery disease.

Scientific Presentations and Case Studies

Emma Flint

Clinical vascular scientist - Imperial College Healthcare NHS Trust

“Estimating & comparing the performance, clinical effectiveness, and cost-effectiveness of current diagnostic options for patients that present to primary care with suspected venous ulcers.”

Mrs Emma Flint¹, Professor Alun Davies¹, Associate Professor David Epstein²

¹*Department of Vascular Surgery, Imperial College Healthcare NHS Trust, London, UK,*

²*Department of Applied Economics, University of Granada, Granada, Spain*

The main objective of this project is to determine the role/position of diagnostic imaging in the patient journey for a patient with active or healed venous ulceration.

Within this we hope to determine:

1. the current practice in primary care for venous ulcer management.
2. the current practice for diagnosis and management of suspected venous leg ulcers in vascular scientist departments across the UK.
3. the minimum diagnostics for this cohort of patients including what scans should be performed and can a set criterion be applied to this cohort of patients.
4. the cost effectiveness of implementing this in both primary and secondary care settings.

Methodology will include the use of Qualtrics surveys, Delphi consensus, in depth interviews and cost-effective modelling.

The hope is that these findings will enable a better understanding of service provision in the UK of diagnostic imaging, being able to identify optimal/suboptimal practise and allow the identification of drivers to improve patient care. This work will complete that being done by the National Wound Care Strategy group. Leading to optimise and standardise patient care pathways for venous leg ulcers and leading to improved patient outcomes.

Wael Faqihi

Vascular ultrasound clinical researcher - Imperial College Healthcare NHS Trust

“Prediction of arteriovenous fistula maturation outcomes in end-stage renal disease patients, using invasive and non-invasive techniques”

Mr Wael Faqihi^{1,2}, Dr Mohammed Aslam¹, Mr Anand Muthusamy¹

¹*Imperial College London, Department of Vascular Surgery, London, United Kingdom,*

²*Najran University, College of Medical Applied Sciences, Radiology and Medical Imaging Department, Najran, Saudi Arabia*

Prediction of AVF maturation outcomes remains challenging. This study aims to investigate arterial stiffness and endothelial dysfunction roles in predicting AVF maturation outcomes using advanced ultrasound applications. A prospective observational cohort pilot study where seventeen patients with ESRD who underwent AVF surgery recruited. AVF native artery and vein were scanned and assessed pre-and post-surgery using Ultrasound B-mode, shear wave elastography (2DSWE), 2D strain speckle tracking (2DSST) and laser Doppler flowmetry (LDF). During the surgery, BVF was measured using Transonic intraoperative blood volume flow (TIBVF). Patients then followed for six weeks. Seventeen fistulas were created, and four failed to mature. Patients' average age was 56.3 ± 14.1 years, 80.4% males. BMI average was 28 ± 5.3 , hypertension (100%), diabetes (41.2%), and CVD (35.3%). 2DSWE reading among the failure group was higher than patent group 4.23 ± 0.43 m/s, 3.90 ± 0.42 m/s respectively. 2DSST reading was slightly similar between both groups, failure $2.65 \pm 0.52\%$ and patent $2.12 \pm 0.70\%$. LDF significantly correlated with AVF maturation outcome, $p < 0.001$, failure 17.3 ± 0.50 a.u, patency 22.2 ± 2.24 a.u. TIBVF in the failure group was lower than patency group 164.8 ± 135 ml/min, 434.5 ± 209.5 ml/min respectively, $p < 0.057$. 2DSST and 2DSWE are promising tools to study arterial wall properties but were not correlated with AVF maturation outcomes, possibly due to the small sample size. LDF and TIBVF measurements showed a strong indicator for predicting AVF maturation outcomes.

Georgina Parsons

Clinical vascular scientist - Royal Free Hospital NHS Trust

“Implementing a rapid access diagnostic service for patients with suspected giant cell arteritis”

Miss Georgina Parsons¹

¹Royal Free Hospital NHS Trust, London, United Kingdom

Literature shows that duplex ultrasound is an effective means of diagnosing temporal arteritis. However, the sensitivity of ultrasound decreases rapidly following the commencement of steroid treatment.

Patients with symptoms of GCA were routinely being sent for temporal artery biopsy for diagnosis: an invasive test with considerable associated costs, compared to ultrasound. A new rapid access service was set up with an agreement to accept inter-trust referrals. This allowed patients over a wider geographical area who presented with symptoms of GCA to be seen in a central hub. Here they received an urgent ultrasound assessment of the temporal and axillary arteries.

A service evaluation was conducted over a 22-month period and included 65 patients. Amongst this small cohort of patients, ultrasound assessments were shown to have 100% specificity however the sensitivity was still hindered by delays in the referral process.

Implementing this service has reduced the number of patients receiving a temporal artery biopsy, however further education is needed to raise awareness of the new patient pathway and to highlight the importance of early referral, especially for patients who have already commenced steroid treatment.

Louis Alexander

Clinical vascular scientist - University Hospitals Sussex NHS Foundation Trust

“DVT or not DVT. Leiomyosarcoma misdiagnosed as a Femoral Deep Vein Thrombosis (DVT).”

Mr Louis Alexander¹, Ms Jodie Baker¹

¹*University Hospitals Sussex NHS Foundation Trust, Brighton, UK*

Background:

Incompressible lower limb deep veins are routinely diagnosed as DVTs; however, in rare situations, this might result in a delay in treatment for leiomyosarcoma.

Case Presentation:

A 50-year-old woman presented to ambulatory care with a swollen right leg. Ultrasound imaging suggested an occlusive thrombus in the proximal femoral vein (FV). Despite best medical therapy, her symptoms persisted over the following four months. She had two further ultrasound scans, where radiographers again reported DVT. As her DVT was unprovoked, a CT scan was conducted to rule out a malignant aetiology. Six months after her initial symptoms, she was referred to the vascular department, where a Clinical Vascular Scientist conducted a duplex scan.

Results:

A specialised vascular duplex examination revealed mixed echogenic material in the proximal FV (atypical for thrombus) with channels of low resistant arterial flow. The findings were discussed with the vascular consultant, who ordered magnetic resonance imaging, which confirmed the presence of a vascular tumour. A core biopsy subsequently confirmed it to be a metastatic Leiomyosarcoma.

Conclusion:

Despite the rarity of this diagnosis, it emphasizes the value of specialist Clinical Vascular Scientists, and how they can contribute towards diagnosing rare pathologies within a multidisciplinary team.

Nikolas Sanoudos

Lead clinical vascular scientist - ¹Mid and South Essex NHS Foundation Trust

“Can Artificial Intelligence detect carotid arterial disease through Duplex ultrasound?”

Mr Nikolas Sanoudos¹, Prof. Ali Kordzadeh¹, Mr Alan Askari², Mr Omar Ahmad Abbassi¹, Mr Vahaj Mohaghegh², Mr Hassan Shirvani²

¹*Mid and South Essex NHS Foundation Trust, Chelmsford, United Kingdom,*

²*Engineering Analysis Simulation and Tribology Research Group Medical Technology Research Centre, Anglia Ruskin University, Cambridge, United Kingdom*

Objective:

The aim of this study is to evaluate the feasibility, applicability, and accuracy of artificial intelligence (AI) in the detection of normal versus carotid artery disease through greyscale duplex ultrasound (DUS) images.

Methods:

A prospective image acquisition of individuals undergoing DUS for carotid artery disease was conducted. A total of n = 156 images of normal and stenotic carotid arteries (based on NASCET criteria) were evaluated by using geometry group network based on convolutional neural network (CNN) architecture.

Results:

The overall sensitivity, specificity, and accuracy of AI in the detection of normal carotid artery was 91%, 86% and 92%, respectively, and for any carotid artery stenosis was 87%, 82% and 90%, respectively. Subgroup analyses demonstrated that for stenotic carotid artery (<50%) versus normal, there was sensitivity 92%, specificity 87% and accuracy 94%. This value for group of 50–75% stenosis versus normal was 84%, 80% and 88% and for carotid artery disease of more than 75%, was 90%, 83% and 92%, respectively.

Conclusion:

This study demonstrates the feasibility, applicability, and accuracy of AI in the detection of carotid artery disease in DUS images. It can serve as a stratification tool for tertiary referral, further imaging, and overall management.

Ben Warner-Michel

Vascular Scientist - Salford Royal Infirmary, Northern Care Alliance NHS FT

“Utility of duplex ultrasound in establishing extra-cranial large vessel inflammation and peripheral arterial complications in systemic large vessel vasculitis”

Mr Ben Warner-Michel¹, Dr Ezolene Chua²

¹*Diagnostics and Pharmacy, Salford Royal Hospital, Northern Care Alliance, Salford, UK,*

²*Department of Rheumatology, Salford Royal Hospital, Northern Care Alliance, Salford, UK*

Case presentation:

A 59-year-old female developed non-inflammatory aches of both shoulders, bilateral glutei, right leg claudication, right periorbital pain with pulsatile right sided tinnitus over 6 months. Her only cardiovascular risk factor was recently diagnosed hypertension. She does not smoke. Her ESR was 85 and CRP 61, so her GP initiated 40mg prednisolone on suspicion of temporal arteritis.

Management and outcome:

Whilst taking steroids, her initial temporal artery ultrasound (TAUS) was unremarkable. Symptoms recurred with bilateral carotid bruit when prednisolone was weaned. Further Doppler ultrasound identified left internal carotid artery occlusion with an inflammatory ‘halo’. Lower limb arterial duplex demonstrated inflammatory stenosis of the right superficial femoral artery. A repeat TAUS found bilateral axillary artery inflammation. Magnetic Resonance (MR) imaging and cerebral angiography later confirmed left carotid artery wall enhancement with occlusion and multifocal cerebral infarction.

Discussion:

Real-time duplex ultrasound identified widespread vasculitis and stenosis of the carotid, axillary and superficial femoral arteries, whilst pending MRA investigation. Classic smooth muscular intimal thickening with “halo” sign helped to distinguish vascular inflammation from irregular atherosclerotic disease. Doppler ultrasound enabled early diagnostic clarity and therapy in this case of widespread large vessel vasculitis, and reduced risk of further vascular morbidities.

Husnayya Al-haddad

AAA screening technician - Imperial College Healthcare NHS Trust

“An ultrasonic assessment of inner to inner and outer to outer diameter measurement of the abdominal aorta. A 10-year perspective from an abdominal aortic aneurysm screening technician.”

Mrs Husnayya Al-haddad¹

¹*Imperial College London, Hammersmith, London, United Kingdom*

Objective:

Assessing the ultrasonic differences between the inner to inner (ITI) and outer to outer (OTO) measurement of the abdominal aorta between three abdominal aortic aneurysm screening technicians (AAAST) and vascular scientist (VS).

Methods:

A retrospective analysis using ITI and OTO measurements in 50 static images of normal-sized aortas and 10 static images of surveillance AAAs by three AAASTs and one VS. The prospective research involved live scanning of the abdominal aorta in 10 men aged 50+ and 10 surveillance patients.

Results:

80 patients were included in this study. Retrospectively, the largest variation was observed by VS of 0.5mm between the ITI and OTO. AAAST1 and AAAST2 showed a variation of 0.4mm and, 0.3mm by AAAST3. Using the ITI method 76% (50 static images) were measured lower by the VS whereas AAA screening technicians showed 80% uniformity across ITI measurements. Live scanning (20 patients) showed a variation of 0.2mm in ITI, and 0.4mm in OTO.

Conclusions:

Three AAASTs showed higher uniformity compared with VS using the ITI method. Live screening showed a lower variation between VS and AAAST1 in ITI in comparison with OTO. This study prompted further clarity during quality assurance (QA) reviews due to absent cardiac phasic information.

Mervyn McKenna

Clinical vascular scientist - Mid and South Essex NHS Foundation Trust

“Systematic review of duplex versus clinical surveillance after endovascular treatment of lower limb peripheral arterial disease”

Mr Mervyn McKenna^{1,3}, Mrs Laura Wingate³, Mr Dan Robbins¹, Mr Ankur Thapar^{1,2,3}

¹*Anglia Ruskin University (ARU), Chelmsford, United Kingdom,*

²*Imperial College, London, United Kingdom,*

³*Mid and South Essex NHS Foundations Trust, Basildon, United Kingdom*

Introduction:

ESVS 2019 guidelines recommend that patients should undergo duplex surveillance at 1, 6 and 12 months. The aim of this study was to establish the benefit of duplex versus clinical surveillance on major amputation.

Methods:

Two reviewers performed a systematic review using the PRISMA guidelines for 2 arm studies of duplex versus clinical surveillance. Medline and EMBASE were searched between 1947 to March 2022 and assessed for risk of bias. The primary endpoint was lower limb amputation and the secondary endpoint was primary assisted patency.

Results:

Of the 595,104 records initially identified, 135 abstracts were screened and 17 full-text articles were assessed for eligibility. One non-randomised, 2 arm parallel group, retrospective study was found for 248 patients undergoing superficial femoral artery stenting. Over a 56-month period this found a risk of major amputation of 10% (duplex) versus 50% (clinical), $p < 0.001$. The primary assisted patency was 54% (duplex) versus 38% (clinical), $p = 0.8$.

Conclusion:

The authors found only one comparative, low quality study of duplex versus clinical surveillance. The key finding was that patients undergoing duplex surveillance had a significant reduction in major amputations. It is recommended that a prospective randomised controlled trial is designed to answer this question.

Rhodri Furlong

Clinical vascular scientist - St Georges University Hospital NHS Foundation Trust

“A contemporary retrospective series examining the impact of duplex surveillance on autogenous, peripheral bypass grafts”

Mr Rhodri Furlong¹, Dr James Budge¹, Professor Peter Holt¹

¹*St Georges University Hospital NHS Foundation Trust, London, United Kingdom*

Introduction:

The impact ultrasound-derived surveillance programmes have on the patency rates of autogenous peripheral bypass grafts (BPG) is debated within the literature, yet regimented surveillance is routinely practiced in the UK. This study aims to present a contemporary BPG surveillance population, and its impact on graft patency.

Methodology:

All patients who entered ultrasound surveillance following autogenous BPG surgery between 2014 – 2022 at a single tertiary vascular centre in London were identified. Retrospective data collection was performed to identify patient demographics, past medical history, ultrasonographic surveillance findings and clinical outcomes.

Provisional results:

247 patients (age 72 ± 11 years, 209 male) were identified. Overall primary, assisted-primary, and secondary patency rates were 58%, 80% and 80%, respectively. Ultrasound identified graft-threatening stenosis ($>75\%$) in 40% of patients. Primary patency was significantly lower in this cohort compared to patients without stenosis (25% vs. 80%, $p < 0.001$). In the cohort that had significant stenosis, those that underwent re-intervention had better assisted-primary and secondary patency rates than those that did not (84% vs. 78%, $p = 0.043$).

Conclusion:

This retrospective contemporary series indicates that the identification of graft-threatening stenosis with ultrasound may inform treatment, which improves graft patency rates.

Nicholas Zakikhani

Principal clinical vascular scientist - St Georges University Hospital NHS FT

“A reflection of measuring and applying qualitative approaches to a Vascular Ultrasound Lab”

Mr Nicholas Zakikhani¹

¹St Georges University Hospital, London, United Kingdom.

Throughout my experiences of working within healthcare, the processes and attention of measuring qualitative data in a clinical setting has taken a back seat when compared to the huge emphasis on quantitative approaches. For example, focus tends to favour on how many scans can be performed on an ultrasound machine per day rather than also assessing patient satisfaction and re-designing patient pathways to facilitate patient centred care.

Vascular sonographers are a vital cog in the patient pathway in assisting in the diagnosis of diseases. However, should they wish, they can also play a major role in helping facilitate the qualitative measures to improve patient care given their involvement in large webs of care and their patient facing roles.

This talk is a reflection of my application of qualitative aspects of healthcare through my learning on the Elizabeth Garrett Anderson Program (MSc Healthcare leadership). Topics of reflection include my experiences in the power of honest conversations, the importance of storytelling to extract information, sub-conscious behaviours, perceptions, looking beyond the tip of the iceberg and the tools to help facilitate qualitative sciences in a Vascular Ultrasound Lab.

SVT Debate, Key note and Invited
Speakers:

Education, accreditation, and equivalence
round-up

Dr Colin Deane

Clinical scientist – Kings College London

“From specialist interest to core service, where next for the vascular laboratory?”



Colin Deane is a Clinical Scientist and Vascular Ultrasound lead at Cleveland Clinic London and Honorary Senior Lecturer at King's College London. After studying engineering at Southampton, he completed a PhD in Medical Engineering and Physics (MEP) at King's College London. He undertook further postdoctoral training at the Department of Radiology in Thomas Jefferson University Hospital, Philadelphia. He has specialised in vascular ultrasound clinical practice and research for over 30 years at the Vascular Laboratory at King's. He is actively involved with education and training in medical ultrasound nationally and internationally and has taught and led on the MSc in Medical Ultrasound at KCL. He has written on ultrasound and

its use in vascular diagnosis particularly on neurovascular, renovascular and peripheral applications. He retired from King's in 2022, having spent the last six years as Director for the MEP care group. From 2010 to 2012 he was President of the British Medical Ultrasound Society. He continues to teach clinical applications of medical ultrasound to anyone who'll listen and some who don't and now enjoys his clinical work without the burden of a senior management role.

As we celebrate 30 years of the SVT, we can reflect on many changes. Vascular laboratories arose from the increasing demand of vascular surgeons and a small group of other specialities who worked with teams developing physiological measurement techniques for the circulation. Vascular technologists, a wide-ranging term covering people from a range of life and physical science disciplines, used a range of devices from simple pressure measurement of large peripheral arteries to laser Doppler for the microcirculation and a whole host of instruments for invasive measurement of flow, pressure and vascular impedance. Individual labs worked on priorities dependent partly on local interests and support. As the science of vascular related surgery and medicine matured, there was increasing need for strong diagnostic support. For non-invasive vascular work, this coincided with the rapid expansion and capability of vascular ultrasound. From large, expensive scanners to the current day where technology advances have made them smaller, cheaper, more capable, there is range of equipment suitable for a similarly large range of clinical settings and applications. The dominance of the scanner has led to the loss of understanding of other techniques and measurements. The balance between imaging and measurement is something we witness in MDTs and while somethings gained, something's lost and ultrasound's inherent difficulty in presenting images to third parties works against it. Modern labs are now busy, complex diagnostic centres serving patients from specialties throughout the hospital. Staff and labs share many of the problems of their other colleagues, large volumes of referrals, some not always appropriate, competition for space, competition for resources and staff who feel under pressure and restricted in the scope for development which have exacerbated by the changes over the last three years of Covid. For staff in labs there can be the problems of communication for small units within large organisation. The strength, however, for vascular scientists is that the need for their services and the wide range of contacts make them invaluable in using their technical and scientific knowledge to aid many patient pathways.

This talk will be a brief personal reflection of the changes from a perspective of someone who has experienced the development of lab from its inception to developing it with colleagues to a major diagnostic service and finally championing it in the maelstrom of a financially challenged NHS teaching hospital.

Prof. Brendan G Cooper

President – Academy for Healthcare Science
Consultant Clinical Scientist, Department of Lung Function & Sleep - University Hospitals
Birmingham and University of Birmingham, United Kingdom

“The future healthcare science workforce and the importance of equivalence”



Prof Brendan Cooper is a Consultant Clinical Scientist in Respiratory Physiology at University Hospitals Birmingham and a Hon. Professor at the University of Birmingham. He has nearly 40 years' experience in both clinical and research practice in the UK. He has published over 160 peer-reviewed papers on a broad range of respiratory physiology and is a world leader in the drive for Quality Diagnostic Spirometry. He has been the President of the Academy for Healthcare Science since 2017 which aims to promote and champion all healthcare science professions. He chairs the AHCS Professional Bodies Council, of which SVT is represented, and has a broad view of all healthcare science professions across the four nations. In his spare time, he is a keen mountain biker, scuba diver and classic car enthusiast.

The Great Debate

“STP graduates MUST get AVS accreditation”

For the motion: Emma Waldegrave, *President of the SVT*

Against the motion: Rob James, *SVT Website Secretary*

The debate today will reflect on our varied training pathways into vascular ultrasound and ask is there a need for all those working in specialist vascular ultrasound practice to gain AVS accreditation.

One of the original aims of the Society for Vascular Technology of Great Britain & Ireland, at its inception in 1992, was to develop a standardised training program to deliver a competent Vascular Technologist (now scientist). The AVS programme was the first official training pathway in vascular ultrasound and to this day is considered a “gold standard” of clinical proficiency by employers globally.

In 2014, the highly anticipated first graduates from the Scientific Training Program were produced. The clinical mentors that supported training of these new scientists, were the existing senior AVS workforce and it was acknowledged that further clinical experience was necessary before undertaking the AVS exam. The SVT encouraged our STP graduates to strive for AVS status as this accreditation was acknowledgment of an advanced level of clinical practice.

Eight years on, we still have many practitioners undertaking vascular ultrasound without STP or AVS and we still have a national workforce shortage. With the advent of the new apprenticeship programmes, our AVS pathway continues to play a vital role.

In 2022, against the backdrop of an overstretched NHS, with mounting demands exacerbated by the pandemic, the need for more Clinical Vascular Scientists is of paramount importance.

Benjamin McQuillan & Latoya Woolery

Assessment managers – United Kingdom Accreditation Service (UKAS)

“The importance of UKAS Accreditation & IQIPS”



My name is Ben McQuillan and I have been an Assessment Manager with UKAS for three years and a Technical Assessor for six years. I have a background in Audiology and worked in the NHS for close to ten years. I specialised in complex adult hearing services and Tinnitus when in clinical practice and was clinical lead for Tinnitus services prior to leaving the NHS to join UKAS permanently. I was also the student placement coordinator for trainees on clinical placement as part of their undergraduate studies. I currently assess physiological services to the IQIPS Standard and medical laboratories to the ISO 15189 Standard. As part of my role in UKAS, I act as the point of contact for colleagues regarding technical and scientific matters relating to Audiology. I also chair the Audiology Technical Assessor and IQIPS Lay Assessor forums. Having joined UKAS from an accredited Audiology service, I appreciate the work, dedication and commitments maintaining accreditation involves. As such, I endeavour to make the assessment process a positive experience and that accreditation adds value to services provided to patients. In my spare time I'm often playing tennis and I'm a keen photographer.



My name is Latoya Woolery and I have recently joined UKAS as an Assessment Manager in the IQIPS team. I have been a Cardiac Physiologist for over twelve years and hold personal accreditations in Echocardiography (Cardiac Ultrasound), and Cardiac Pacing and Devices. I am enjoying guiding customers through the accreditation process and hope to be approachable, relatable and supportive of my customers. In my previous role as a Consultant Cardiac Physiologist, I helped to lead my department through the IQIPS accreditation process and was, therefore, able to see and experience the wide-ranging benefits of accreditation to patients, staff and wider organisation. Whilst going through the IQIPS accreditation process, I saw first-hand how creating and implementing different ways of working and training transformed the department and Service as a whole, and I have a passion for quality improvement. Accreditation helps to deliver confidence and reassurance in the services that we use and rely on every day, and I feel that this is particularly important within the Healthcare sector as it ensures focus on patient-centred care and best practice. I enjoy being active and keeping fit and regularly run and do yoga. I enjoy water-skiing and activity-packed beach holidays, and I am a huge football fan and avid supporter of Manchester United.

Jackie Walton Lecture

Prof. Peter M. Rothwell

Action Research Professor of Clinical Neurology - University of Oxford
Founding Director, Wolfson Centre for Prevention of Stroke and Dementia – University of Oxford

“Do we really need to re-do the trials of carotid endarterectomy versus medical treatment for symptomatic carotid stenosis?”



Professor Rothwell is a clinical neurologist with interests in stroke, vascular dementia, hypertension, and aspirin. He set up the Stroke Prevention Research Unit in Oxford in 2000, which was subsequently awarded a Queen’s Anniversary Prize for Higher and Further Education. He recently founded the Wolfson Centre for Prevention of Stroke and Dementia in a new purpose-built Clinical Research Facility in Oxford, focusing on patient-oriented research to improve prevention in routine clinical practice.

He has published over 600 scientific papers and has been the recipient of several awards, including the Foulkes Foundation Medal from the Academy of Medical Sciences, Senior Investigator Awards from the Wellcome Trust and from the National Institute of Health Research, Award for Outstanding Contribution to Clinical Research (British Medical Journal), President’s Biennial Award for Outstanding Contribution to Stroke Research (World Stroke Organisation), the Kinmonth Medal (Royal College of Surgeons), and the International Aspirin Award.

Abstract:

Carotid endarterectomy for recently symptomatic carotid stenosis is not only one of the most effective interventions available to prevent stroke, but also has perhaps the most convincing evidence-base of any vascular surgical procedure. However, the evidence is now old, being based on three randomised trials done in the 1980s and early 1990s (Jackie Walton was very much involved in recruiting patients into the largest of these trials, the European Carotid Surgery Trial). In light of subsequent improvements in medical treatment over the last 30 years, some have argued that these old results are no longer applicable to current clinical practice and that the trials should therefore be repeated. In this lecture, I will review the previous trial evidence supporting carotid endarterectomy (or stenting) plus medical treatment for recently symptomatic carotid stenosis and consider any weaknesses in the external validity of the findings, both at the time that the trials were done and more recently, given the evolution of best medical treatment, procedural risks, other aspects of service provision, and the underlying disease process.

Invited Speaker

Crispian Oates

Consultant Physicist (retired)

“Advanced Vascular Technology - or what ultrafast ultrasound can do for vascular scans”



I grew up in East London and studied physics at the University of East Anglia in Norwich. Following that I went to the University of Aberdeen to study Medical Physics. In 1979 I got my first post in the Regional Medical Physics Department in Newcastle Upon Tyne and spent the whole of my working life in that department. Having started in nuclear medicine I moved to ultrasound in 1981. In 1983 I started a vascular ultrasound service in Sunderland. Over the years we opened services in Newcastle and Durham and I became the consultant scientist in charge of the Regional Vascular Ultrasound Service. In 1992 I became one of the founder members of the SVT. I was privileged to serve the Society on the Professional Standards Committee and the Executive Committee and to

serve as President in 1999. I have been involved in teaching ultrasound throughout my career. I retired from the NHS in 2016 but still serve on The Consortium for the Accreditation of Sonographic Education (CASE) and spent lockdown writing a textbook on ultrasound technology for clinical practitioners. In my spare time I manage to fit in gardening, painting, and a few dozen other things!

Abstract:

The talk describes the principle of plane wave beam forming and will illustrate the benefits that this brings to vascular scanning enabling microvascular imaging, multiple Doppler sampling in real time triplex mode and real time vector flow imaging.

Honorary Awards 2022

Sara Causley
&
Dominic Foy

Sara Causley



I started my career in the NHS in 1985 as a student nurse. After qualifying in 1988 I worked on a male emergency surgical ward where many of the patients were being treated for vascular disease. In the mid-nineties a new vascular surgeon started work in the trust. Fresh from London his first priority was to set up a vascular laboratory. Having brought a Vascular Scientist over from Australia to help, he set out to find a trainee. The interview process was interesting. There were 2 informal interviews which involved lots of mental agility puzzles and tasks to try and perform on the ultrasound machine, before moving on to the formal interview. With no experience in ultrasound, I think I got the job as I proved I was

willing to try and work things out for myself rather than rely on instruction manuals. This proved invaluable when my trainer left after six months!

Like many who learnt our craft in the early days the training was not as structured as it is now and I was grateful for help from the SVT and members from other trusts. Even then I knew I was able to contact someone and they were always going to be willing to share their experience and advice. I qualified in 1999 and continued to work for Wye Valley Trust throughout. SVT support was invaluable and I am proud to have attended every ASM since I started, except for one when I was on maternity leave.

In 2007 I was invited to join the Executive Committee as a non-portfolio member. I was very nervous. As a single-handed practitioner, I had been isolated in the workplace. This was a huge step for me but I knew professionally that I needed to push myself outside my comfort zone. The following year I took on the role of membership secretary, which I continued until 2017. I was in at the deep end, reorganising the membership database and helping design a new website with a background administration office.

I didn't think I could ever be President of the SVT. I eventually succumbed when in 2016 Helen Dixon asked me to be her Vice-President. I felt it was time to challenge myself again. My time as President flew by, like many before me I didn't achieve everything, I wanted in the time available. But I am proud to say that during my tenure I helped support the start of a number of projects such as the introduction of the degree programme to fill the training gap, the research module for AVS accreditation, surgeons training and the introduction of Heads of Service meetings at the ASM amongst others.

I finally stepped down from the Executive committee in 2021 when I took early retirement from the NHS. I have returned to work 2 days per week which has given me the perfect my work life balance. I now work for our partner trust, Worcester Acute Hospitals NHS Trust, I would like to thank the team there for making me so welcome and supporting me throughout.

I would like to thank the SVT Executive Committee for awarding me an Honorary Membership. I was both surprised and delighted to be considered deserving of this award. I would also like to take the opportunity to thank all the committees for their continued hard work in driving the profession forward. We would not be where we are without this small army of dedicated volunteers.

Dominic Foy



I studied for a physics degree between 1980 and 1983 mainly because physics was my best A level result. I am not sure what I thought I would do with it! By a few strange twists and turns, I ended up working as a “basic grade” medical physicist in Bristol in 1984 where they had quite a heritage in Doppler ultrasound development and a very active vascular lab. Having proven to myself and my bosses that Electronics was maybe not my forte I rotated through a few departments within Medical Physics before settling in nicely at the vascular lab. Here I was able to work with some friendly research registrars in the mid-80s. There was some real enthusiasm for what ultrasound machines with Doppler could possibly do other than just carotids and abdominal imaging. At that stage we had not even considered that colour Doppler might soon arrive! I moved onto a senior physicist post in Poole in 1988 and have been in this area ever since. I had some opportunities then to develop new ways of using duplex scanners doing some work with Simon Darke on venous reflux comparing it to the plethysmography and venography (which was still being used widely at that stage). One of the papers we wrote on arterial duplex was presented by Simon Parvin at the Vascular Society and by me at BMUS. Clearly similar work was going on around the country, but it was a very stimulating time to be involved in Vascular Ultrasound. Everything we did and achieved was hugely appreciated by the surgeons and the radiologists. Sadly, I think our contribution is often taken for granted these days and that is such a shame.

When I heard about the idea to form the SVT (we agonised over the name!) I enthusiastically went along and absolutely loved having the opportunity to speak to people who were doing similar work but who may have come from all sorts of different backgrounds. I joined the committee as conference secretary in the 90s when our meetings were held separately to the Vascular society and again around 2015 before going on to be President in 2019. I enjoyed this hugely but was a bit daunted by the responsibility the position holds. However, it’s always nice to have an opportunity to show off! I see my main achievements as President were probably to move to a 2-day format for the SVT conference. I also suggested a 2-year tenure for Presidents following me as it is quite difficult to achieve anything in 1 year. You are just getting to understand how it all works and your time is up! Poor Lee Smith who succeeded me had the tricky task of a 2-year tenure, mostly through Covid lockdown! As President I had, and still have a passion for trying to help non-SVT sonographers who do vascular work to work to a high & consistent standard so that we have a safe, high-quality offering across the country. We as AVSs are the specialists but we should not forget that others do vascular scans and we should be as inclusive as possible.

I am very honoured to be offered honorary membership of SVT and will always view SVT as a positive force within healthcare. I do encourage all members to consider a stint on the committee. Its hard work but good fun, you meet some very nice people and you often get to enjoy a pint with them after meetings!

ANNUAL GENERAL MEETING

Thursday 24th November 2022

5pm onwards

Agenda

- 1) Education Committee *(verbal report)*
- 2) Professional Standards *(verbal report)*
- 3) Membership *(conference book report only)*
- 4) Treasurer *(conference book report only)*
- 5) Research Committee *(verbal report)*
- 6) BMUS Report *(conference book report only)*
- 7) Website Report *(conference book report only)*
- 8) President's Report *(verbal report)*
- 9) Members' Q&A open session

Education Committee Report

Educational pathways:

With the implementation of the new 2022 STP curriculum taking place as we speak, focus has now moved to the new Healthcare Science (Vascular Science) BSc (Hons) in the final stages of development. This new vascular practitioner training will standardise the learning and training expected at this level, this is particularly important now that some centres have already developed this role locally to help resolve workforce issues. With full support of the NSHCS we will be aiming for AHCS and CASE accreditation to ensure graduates get automatic registration with the AHCS practitioner register.

The SVT are now working with Gloucestershire University to produce the curriculum content for the degree which realises the discussions held in previous SVT Heads of Service meetings. This information will be added to the course detail over the coming months.

This new qualification will help increase the workforce nationally by allowing career progression through all levels. The course will run as both a distance learning apprenticeship and direct entry degree with the aim of opening for the first intake in Sept 2023. For any advice regarding apprenticeship funding etc. please get in touch via educationpathways@svtgbi.org.uk

I would like to thank both Helena Edlin and Ryan Ward for their massive continued effort in making this possible after many years of demand for a clear educational pathway.

Update of documentation:

All documentation is currently undergoing updates including some minor changes to the practical exam guidelines and scoring which will be published to the membership shortly. Please keep an eye on the education section of the website for more information.

Update of the website:

The website has now undergone an update including lots of your most frequently asked questions and advice.

Theory Exams:

Theory exams should now be available to take online or in select Pearson Vue testing centres all year round. If you are having issues accessing these exams please contact edcom_chair@svtgbi.org.uk.

Item Development Workshops:

June 2022 saw both the technology and physics item development workshops taking place in Manchester. A huge thank you to all those members who attended and added lots of new items to our question banks. If you would like to volunteer for any future workshops please contact either physicsexams@svtgbi.org.uk or technologyexams@svtgbi.org.uk to express your interest.

Practical Exams:

There will be some minor changes to the practical exam guidelines and score sheet being made imminently which will be updated on the website. Please forward any queries regarding

the process of practical exams or if you want more information about being an external examiner to practicalexam@svtgbi.org.uk

Study Days

Virtual Fundamentals Days were held on 28th February and 1st March 2022 with nearly 40 attendees each day. The sessions were also available online for a short period after which plenty of participants accessing these in their own time.

The virtual Revision Days were held on 18th and 19th July 2022 and had also had some great feedback from the participants.

For information regarding upcoming study days or to volunteer to lecture on these days (CPD available with expenses covered) contact studydays@svtgbi.org.uk

CPD:

No significant changes have taken place with regards to the CPD process. We are currently undergoing our annual audit of 10% of the membership with 28 members selected at random. If you have been selected for audit, please liaise with the CPD team with how to complete this process.

Please also ensure that your rolling total is 30 points over 3 years by the end of August. There have been 40 members this year who have been contacted for insufficient points.

If you are having difficulty obtaining points, please do not forget your online CPD questions are available including previous editions and the CPD team are happy to suggest ideas for completing CPD which do not involve travelling to conferences etc at cpd.avs@svtgbi.org.uk

The Committee:

I would like to say a massive thank you to both Asif Dilshad and Davinder Virdee who have been on the committee for many years as our Fundamentals and Revision Day and have stepped away from the role. They have run our highly successful and well attended study days for nearly a decade now, including the challenging move to virtual sessions during Covid. They will be truly missed as part of the committee and I wish them both the best for the future.

I would like to welcome Michael Davis to the committee who has taken over as study day coordinator, Ana Morais as CPD co-officer and Shannon Halliwell as our new trainee rep.

Finally, I would like to offer a huge thank you and my sincere gratitude to the education committee who so generously volunteer their time to help us run the education side of the SVT:

Amy Bolsworth, Ana Morais, Caroline Dainty, Felicity Woodgate, Hannah Williamson, Helena Edlin, Laura Haworth, Mike Davis, Ryan Ward, Shannon Halliwell and Sophie McDermott.

None of the work we do would be possible without the time and dedication of each of you.

Kind Regards,

Hannah Lines,

Education Committee Chair



Healthcare Science (Vascular Science) Degree Apprenticeship

Upon successful completion, learners gain a BSc (Hons) in Healthcare Science (Vascular Science) and are able to apply for professional registration with the Academy of Healthcare Science.



Professional Standards Committee Report

This year the PSC have completed the updates for many of the Professional Performance Guidelines (PPG) and these are now available for public access on the SVT website. We encourage all departments to utilise these resources to ensure your local standard operating procedures (SOP) or protocols align with the current SVT PPGs. We are also planning to develop a PPG to guide departments in quality assurance and audits of the ultrasound service, including ultrasound image and report QA and observational assessments.

We are pleased to be able to publish the SVT scan time recommendations after a UK Vascular Ultrasound Heads of Service survey and analysis, in order to support best practice for safe and effective service delivery. This is by no means a mandatory figure, as we recognise that timing will be affected by several variables such as utilisation of support staff such as HCAs, style of reporting, image storage, local SOP and levels of training/experience. One of the key considerations was to ensure safe practice and sustainability of staff performing these tests on a full-time basis.

The PSC continue to recommend IQIPS accreditation, and are happy to help and advise where we can to ensure SVT members are supported in this journey. We have recently carried out a survey to UK Vascular Ultrasound Heads of Service to establish the current feelings with this quality standard accreditation for services. The results will be reported in the next SVT Newsletter. The PSC are to consider whether to produce any more supporting documents and guidelines for attaining accreditation to IQIPS V2, such as support with uncertainty of measurements, and producing a quality manual to demonstrate a vascular laboratory quality management system. We also hope to produce a generic 'Vascular Ultrasound' patient information leaflet.

The PSC wish to support Clinical Vascular Scientists with regards to their career, to align with other Healthcare Science professions. In the forthcoming year we will be looking at producing Clinical Vascular Scientist job descriptions (JDs) to align with National Clinical Scientist JDs. We would also still recommend considering completing the STP Equivalence scheme to ensure registration as a Clinical Scientist on the professional HCPC register.

Any queries, comments or suggestions please send an email to the Chair of the Professional Standards Committee: psc_chair@svtgbi.org.uk

A big thanks to our committee team for all their hard work this year, especially now we have overcome COVID restrictions, and have managed to have face to face meetings again at last. A huge thanks to Sophie Harrison who stepped down from the committee earlier this year. We welcomed Ved Ramnani to the committee at our last meeting in September.

PSC Members: Eleanor Blaxland, Kamran Modaresi, Maria Morgan, Ved Ramnani, Nicholas Sanoudos.

On behalf of the PSC,

Jo Walker & Alison Charig

Joint PSC Chairs

Membership Secretary Report

As of the 31st of October 2022, the Society of Vascular Technology for Great Britain and Ireland has 529 current members.

This number is made up of the following:

Accredited Vascular Scientists:	282
Ordinary Members:	207
Honorary Members:	12
Associate Members:	22

The numbers of the membership remain stable, however, the number of AVS has increased which is encouraging.

The SVT would encourage anyone who is attending the Society of Vascular Technology sessions at this Vascular Societies' Annual Scientific Meeting and who is involved in vascular imaging to become a member of the SVT. There are many benefits to being a member and these can be found on our website: www.svtgbi.org.uk.

We look forward to growing our membership in 2023.

Kind Regards,

Lynne McRae

Membership Secretary

Treasury Report

Year Ending 31st August 2022

This report is subject to independent audit by accountant Bourne & Co and figures may change prior to submission to charities commission.

The Society for Vascular Technology of Great Britain and Ireland

Statement of Assets and Liabilities

For the Year Ending 31st August 2022

	Unrestricted Funds	Restricted Funds	31.08.2022 Total Funds	31.08.2021 Total Funds
	£	£	£	£
CASH FUNDS				
Bank current account	14,654.36	-	14,654.36	26,579.41
Bank reserve account	143,263.02	3,000.00	146,263.02	146,194.69
TOTAL CASH FUNDS	157,917.38	3,000.00	160,917.38	172,774.10

The Society for Vascular Technology of Great Britain and Ireland

Receipts and Payments Account

For the Year Ending 31st August 2022

	Unrestricted Funds £	Restricted Funds £	31.08.2022 Total Funds £	31.08.2021 Total Funds £
Receipts				
Annual General Meeting	5,000.00	-	5,000.00	5,000.00
Advertising	11,800.00	-	11,800.00	8,300.00
Examination, revision and study day fees	1,525.00	-	1,525.00	1,183.29
Practical exam fees	3,087.13	-	3,087.13	2,400.00
Membership fees	20,057.25	-	20,057.25	23,548.10
Miscellaneous income	-	-	-	-
Charitable donations	-	-	-	-
Bank interest received	68.33	-	68.33	14.05
Total receipts	41,537.71	-	41,537.71	40,445.44
Payments				
Annual General Meeting	7,219.10	-	7,219.10	1,417.93
Ann Donald memorial award	500.00	-	500.00	500.00
Administration and marketing support	12,883.55	-	12,883.55	-
Education committee meetings	2,218.45	-	2,218.45	-
Journal access	2,666.16	-	2,666.16	2,588.51
Executive committee	4,854.69	-	4,854.69	1,425.26
Professional standards committee	1,451.27	-	1,451.27	476.24
Research committee	-	-	-	-
CASE expenses	1,835.00	-	1,835.00	1,835.00
Revision and study days	-	-	-	-
Practical examination fees	658.04	-	658.04	604.07
Newsletter	893.12	-	893.12	-
Postage, printing, stationery and software	1,466.25	-	1,466.25	1,591.68
Website / database administration	2,157.99	-	2,157.99	2,226.00
Insurance	715.88	-	715.88	713.32
Professional fees	2,340.00	-	2,340.00	1,350.00
Miscellaneous expenses	220.08	-	220.08	3.18
Sponsored research grants	8,000.00	-	8,000.00	2,475.50
Donation	1,180.00	-	1,180.00	300.00
Academy for Healthcare Science	-	-	-	-
Bank charges	2,134.85	-	2,134.85	2,052.75
Total payments	53,394.43	-	53,394.43	19,559.44
Net of payments	(11,856.72)	-	(11,856.72)	20,886.00
Cash funds last year end	169,774.10	3,000.00	172,774.10	151,888.10
Cash funds this year end	157,917.38	3,000.00	160,917.38	172,774.10

Kind Regards,

Ben Freedman,

SVT Treasurer.

Research Committee Report

SVT Newsletter Articles and Bubbles:

Following on from the success of last year's research workshop the committee has put together a series of newsletter articles which we hope you have found useful. Their aim is to provide a light overview of various steps in the research pathway, the most recent being Research Questions and Hypothesis generation. Still to come will be articles on study design, funding, approvals, basic statistics, and dissemination. Alongside these articles the committee have agreed to pick up the Bubbles series which critically reviews important and relevant recently published studies. Look out for this in the next newsletter.

SVT Research Grants:

We are continuing to offer the SVT Research award to enable Vascular Scientists to conduct small-scale studies such as pilot or feasibility studies, with the hope that larger grants will be applied for at a later date. There is a total of £9,000 available per year, with a maximum of £4,000 per award. New for 2023 will be the option to apply for one of two £500 writing grants which replaces the travel grants. The writing grant will pay for a few days of time kickstart the grant writing process. Only one grant was submitted within the last round which is currently out for peer review. We plan to open the 2023 project grant window today which will close at the end of March 2023. News on the writing grants will come soon!

The Journal of Vascular Societies of Great Britain & Ireland:

The Journal of Vascular Societies of Great Britain & Ireland (JVSGBI) continues to publish quarterly where all vascular societies (VS, SVT, SVN and BACPR) are represented on the Editorial Board. Updates from the last Journal meeting include the applications to PUBLONS so the reviewer time is recognised and that the Journal will formally submit for PUBMED inclusion in November 2022. This is because the Journal needs to have 12-months of publications first. The Editorial Board have in principle agreed to publish the SVT guidelines. The research committee will work with the PSC to facilitate this. This will help the SVT gain exposure from the exceptional efforts the PSC put into producing guidelines. We encourage all SVT members to support the journal by submitting their research.

The Vascular Priority Setting Partnership (PSP):

The work of the James Lind Alliance Vascular Priority Setting Partnership has been continuing in 2022, with SVT involvement. Emma Waldegrave and Steven Rogers attended a PSP research day at the Royal Collage of Surgeons where the work each PSP committee is completing was presented. There was a fair amount of healthy discussion on how more members from each Society can get involved. We hope that this time next year to hear results from the first grant funded research that addresses some of the PSP generated priorities.

Research Module:

Led by Laura Scott and Nida Nadeem, the committee continues to develop the syllabus of the new research module. This has involved a huge amount of stakeholder engagement from the PSC, Education and Executive SVT committees but also with the Academy of Healthcare Science. Work on the module was slightly protracted as focus shifted to the SVT equivalence award and some other work the SVT Executive has been doing to get the AVS training programme mapped against STP equivalence proficiency standards. Now this essential work is complete, the committee hopes to present a timetable and curriculum to the Executive in the new year.

At the start of the year, it was becoming difficult for Mari Murumets to continue to attend committee meetings due to the time difference from New Zealand. Gracefully, Mari agreed to step down and I am incredibly grateful for the work Mari completed on behalf of the committee.

As my tenure as Chair of the research committee draws to a close, I wish to thank Laura Scott, Yvonne Sensier, Nida Nadeem and Osain Llwyd for their continued hard work on behalf of the SVT. I am assured the committee is in good hands as I pass the reins over to Steven Rogers as the Chair Elect. I look forward to seeing what comes next for the committee.

Please contact us with any questions via research@svtgbi.org.uk

Kind Regards,

Dr Richard Simpson,

Research Committee Chair.



BMUS Report:

Last year BMUS implemented Webinar Wednesday, which was a huge success, however, recently there seems to be a downward trend in attendance. BMUS are working hard to change the way they produce the content in order to attract more participants. One idea is “Ask The Expert” which perpetuates the idea of live sessions purely based around live questions and answers. It has also been suggested that speakers could bring case studies / interesting cases to these webinars, to increase the interest. The BMUS team are also in the process of producing the “BMUS App” and updating their website to make it more visually appealing. They are also hoping to create an online CPD module relating to the professional standards guidelines, e.g., Head and Neck, and are hoping to produce a module to assess the standards. A small course for people to do in their own time.

BMUS ASM:

This year BMUS will be holding their ASM in Cardiff. The theme of the ASM this year is “Ultrasound into the Future.” The Association of Healthcare Technology Providers (AXREM) are doing a debate “Ultrasound of the future, the industry perspective”.

On Wednesday 7th December SVT are providing a hands-on workshop on upper and lower limb DVT. This will consist of a couple talks around the topic of upper and lower limb DVT, then some valuable hands on for the delegates. The main vascular session is on Thursday 8th December. The first session will look at how duplex ultrasound is moving into the future, including the current grading criteria for carotid duplex along with a potentially new topic around the uncertainty of measurements in vascular ultrasound. This session will also cover the topic of venous stenting and the assessment of venous stents. Session one topics:

- The importance of accurate carotid measurements
- Deep venous interventions
- The training and future role of interventional vascular scientists
- Quality and accuracy of vascular ultrasound equipment
- The aftermath of DVT

The second session will look at the role of vascular ultrasound in assessing pathologies of the SMA and sciatic artery. Whether the iliac and calf veins should be scanned routinely as part of the assessment for deep vein thrombosis, and the pitfalls in assessing the DVT patient. Also, the role of vascular ultrasound in endo-AVF screening, creation, and surveillance. Session two topics:

- Should the iliac and calf veins be routinely scanned as part of the DVT protocol
- SMA syndrome
- Recurrent sciatic artery
- Endovenous AVF creation
- Practical tips for the difficult DVT examination.

I would like to take this opportunity to thank Joy Whyte, Pamela Parker and the wider BMUS council for their continued support professionally and administratively of the SVT.

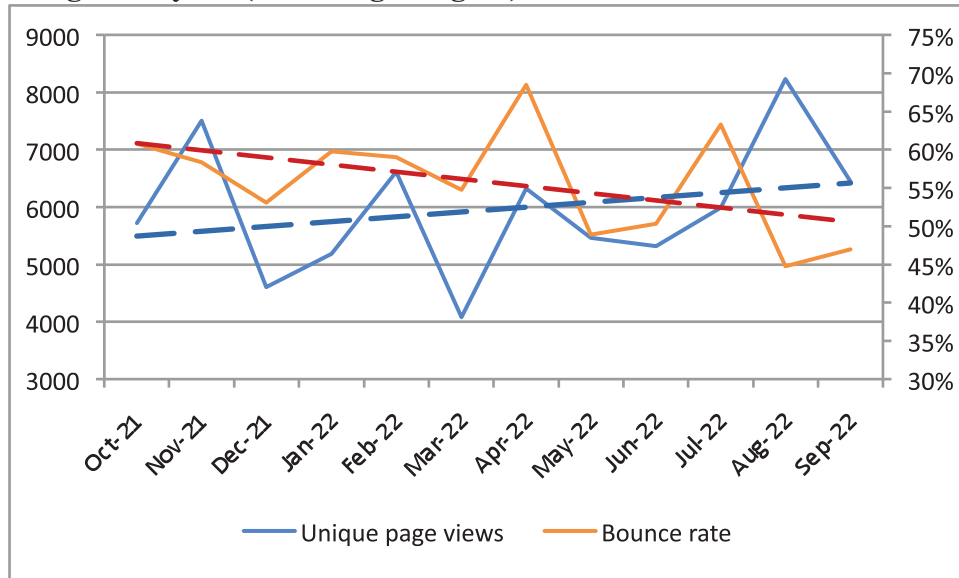
Tanyah Ewen, BMUS representative 2022-2023

Website Secretary Report

Website:

A large-scale website format/content review to be carried out in early 2023.

Google analytics (www.svtgbi.org.uk):



(Unique page views = Number of visits (*multiple visits per session = 1 unique page view*),
Bounce rate = % Single page sessions.)

Job adverts:

2022 total is 20 job adverts placed.

- 17 x £500
- 3 x £400
- Total = £10200

Job adverts on the website receive an average of 382 views in a single month. Total views per job advert is likely to be higher, but this data is currently unavailable.

Pricings:

- The wordings of these have been updated. We are now only accepting a single tier of job advert which costs £500.
- This includes the advert being placed on the website, a single email to the membership and a social media post.

International job adverts:

- It has been confirmed that we will accept and place international job adverts.

Social media:

A general attempt to post more will be made in order to increase exposure and awareness of our organisation and website content. The focus will be to increase the frequency of our posts across the following 4 social media platforms.

Twitter:

556 followers

LinkedIn:

There are two pages. One which is registered as a person and the other which is registered as an organisation. All posts will be made through the organisation page with an attempt to move all followers over to that. The benefit being better analytics of exposure etc.

The SVT GBI page – which is the ‘person’ has 548 followers

The organisational page currently has 127 followers.

Facebook page:

Currently inactive

252 followers

Instagram:

Currently inactive

101 followers

Newsletter / Website secretary responsibilities:

The grey area between newsletter / website responsibilities has been discussed and settled. The newsletter secretary can create website pages (hidden or front end) for the newsletter content to be placed and linked to.

Kind Regards,

Rob James,

Website Secretary.

Presidents Report

It has been a great honour undertaking the first year of my Presidency for the SVT. Despite a rocky start due to a family member illness, I began my term in earnest from January 2022.

It was a baptism of fire of sorts, despite my substantial time on the Executive committee in different roles; conference secretary, BMUS representative and Vice President, you don't experience the duties and responsibilities of presidency until you are firmly in the driving seat and racing off at an unstoppable pace, prepared or not!

Alongside the usual status quo of committee and society business of which there is much to do there are often wider spanning projects requiring input from professional bodies to inform change, policy, or guidance. These projects are where the SVTs professional voice can be heard and thanks to years of excellent representation of our society in these forums, we have garnered notable respect. I am grateful to those who have come before me and laid down this well scribed path. I hope to continue promoting the societies aims ensuring our profession is visible, heard and a positive influence for change to better serve our patients and further develop our professional reach.

I have learned a great deal about our profession on a national level through our integral relationships with affiliated societies and aligned purpose consortiums. We provide expert professional input to many other societies and national bodies, collaborating on mutually beneficial projects.

One of my first engagements as President was with the **NHS England Physiological Science Transformation Programme** which forms part of NHS England Diagnostic Transformation Programme formed following the Richards review.

The Richards review, commissioned by NHS England in 2019 following the publication of the NHS long term plan, was nearing its publication when the Covid-19 pandemic hit. Its findings and recommendations highlighted the significant need for radical change in diagnostics delivery pre pandemic and, its timely release in the endemic environment served to further amplify the dire need for such radical change in the provision of diagnostic services.

The pandemic highlighted the significant contribution of the healthcare science workforce in delivering key diagnostic services, integral to the patient's pathway and outcomes. The spotlight was on physiological sciences. It quickly became apparent there was inconsistencies in Health care science data in ESR and a significant volume not represented potentially due to incorrect or old workforce coding. There was also a void of information on physiological tests being carried out as these were not being captured by ESR or the DM01.

Starting with a stocktake tool, the Physiological Science Programme team worked in collaboration with the SVT to gain more insight into Vascular science; information on the types tests we perform, the coding of these tests, how activity is recorded, the workforce and where they sit divisionally, equipment and facilities; digitisation and connectivity, what capacity we have, and waiting times.

This stocktake tool is currently being tested and in the new year will be disseminated to trusts nationally.

The overarching aims of the Physiological Science Transformation Programme are to transform physiological science services, improving outcomes that matter to patients by enabling delivery and access to the right physiological tests at the right time performed by the right person.

Establishing clinical networks for physiological science services, as recommended through the Richards review, is a major ambition for the programme. Over time, networks could enable greater connectivity between a service, support standardisation, improve quality, enhance training provision and create greater opportunities for shared learning between and across different services and professional groups. Stakeholders were invited to attend this virtual workshop to help inform the design of these networks and the plans for implementation in September this year. I attended and was delighted to see so many familiar faces from our community. The participation of our community in the programme is crucial to its success and to our success. I encourage you all to be actively involved.

The SVT will communicate all updates from the programme and will keep our members informed on its progress.

In most recent communications with the Deputy CSO, Angela Douglas has informed us that *“The office of the CSO has completed an ESR data cleanse to identify who our workforce is, and to support the most vulnerable professions now, to support the future of services. The office of the CSO is committed to working with our Professional Bodies to discuss their concerns and plan for the future of their profession, which will help our response to the LTWP and potential need for specialisms to join the National shortages list for the NHS.”*

SVT Business administration support services:

As part of my presidential ambitions to deliver more educational content to our members, I proposed to the executive committee that the SVT invest in paid business administration support to assist us in delivering both face-to-face and virtual educational content along with other administrative and marketing tasks. Through our close links with BMUS we were able to procure the services of Emma Tucker, BMUS Operations & Development Manager.

Emma’s extensive experience in the administration of a medical society has benefitted the SVT membership in many ways; the delivery of virtual webinars, supporting the Newsletter editor in the implementation of the new Mail Chimp Newsletter and generating content for the newsletter. Emma has also worked on the 30th anniversary celebrations digitising the old newsletters for release on the website and social media and extracting case studies from the newsletters over the past 20 years. Emma has worked closely with the Education and Research committee’s implementing new content and in refreshing and designing content for the website. You will have received your anniversary gift; this has only been achieved with the support of the BMUS office.

I would like to extend my gratitude to Emma for her infectious can-do attitude and willingness to support with whatever task is needed. All committees have benefitted from

Emma's support, and in a time when volunteers are at the limit of what they can give to the SVT to drive forward our objectives, whilst simultaneously coping with increasing work pressures and personal life commitments, it has been a welcome relief to have her.

BMUS:

Our relationship with BMUS continues to grow and we are pleased to be asked again to deliver the vascular stream at BMUS ASM 2022 in Cardiff.

As the leading society for Vascular science/imaging we believe that we are perfectly placed to lead the way at a national level with scientific talks, hand on sessions and access to SVT Professional Performance Guidelines.

My thanks to the whole BMUS team for their support professionally and administratively and to Tanyah Ewen who has taken over from me as our new BMUS representative.

Tanyah has vast experience having served on the SVT Executive for many years cumulating in her Presidency of the SVT in 2015. Tanyah having initially trained in general ultrasound is well placed to understand the generalist's workflow and the need for education in common Vascular diagnostics such as DVT and Carotid duplex ultrasound.

Tanyah has created an exceptional vascular programme for the BMUS ASM 2022 in Cardiff, I thank her for her hard work and encourage you all to look at the programme.

Educational content for SVT members:

This year the SVT hosted virtual fundamental and revision days, aided by our new administration support Emma Tucker. These days proved very popular and were available to view for up to 6 weeks after the event for attendees. By recording content for the fundamental and revision days we are harnessing the time and effort of our volunteers and can utilise this content again to benefit our trainees.

This year we host our advanced skills workshop at the ASM in Brighton and will focus on Thoracic outlet syndrome and Popliteal entrapment. In 2023 we aim to run an Upper limb arterial and Venous workshop and a CEUS EVAR workshop. Details and dates will be advertised in the New Year.

The Equivalence award will continue to run in 2023 for our AVS members, and in addition we will have a broader Education grant open to all our members looking to further their education. Details of the Education Grant will follow in due course.

A very special thank you to Hannah Lines and the entire education committee for their extensive work on SVT Education, spanning from management of theory and practical exams, exam item writing workshops, maintenance of CPD for AVS, development of new content for the education website pages, study day organisation and in delivering the 'Introduction to vascular ultrasound' workshop for vascular surgical trainees at the ASM again this year.

I would like to recognise the significant contributions of Davinder Virdee and Asif Dilshad to the Education committee. They have given years of service to the Education committee, delivering our Fundamental study days and Revision days. They will be sorely missed, and we wish them every success in their future. We welcome Michael Davis who stepped in to support this year's virtual revision day which was very well received.

Research:

The SVT continues to award research grants to Clinical Vascular Scientists, and we are fortunate to be able to award up to £10000 per annum towards supporting research activity by the membership. This year we awarded two £4000 grants, and we look forward to receiving more applications in the next grant window this year.

We believe that this funding is crucial in supporting/encouraging the membership to continue their research activities whilst offering a clinical service within the NHS with the outcomes presented at the annual scientific meeting. Our research committee are on hand to support and guide those wishing to undertake research.

Part of the SVT ambitions for 2023 is to deliver a research webinar series to compliment the SVT Research Series released this year for the membership. This educational content will support our members looking to gain more understanding of research design and theory and will hopefully spark innovation.

I would like to extend my sincerest thanks to Richard Simpson, Chair of the Research committee since its formation in 2016. Richard has worked tirelessly for the SVT creating a robust application and peer review process for SVT Research/Innovation grants and in doing so have led the SVT to becoming an NIHR non-commercial partner. Richard has advised on behalf of the SVT on many occasions and has been integral in writing the research syllabus that closely aligns with the AHCS STP curriculum.

I wish Richard every success in his professional and personal life and hope he will stay in contact with the SVT.

Vascular Society:

As SVT president I sit on the Vascular Society open council and the ASM committee working collaboratively on the planning and preparation of the ASM alongside the conference secretary Steven Rogers.

This year the SVT collaborated with the Vascular society on the PAD QIF and have been involved on the editorial board of the JVSGBI. We have opportunities for our members to publish their work in the Journal of Vascular Societies GB & I and would encourage you to read and consider submitting your work for publication.

We are grateful for the strong relationship between the Vascular Society and the SVT, and we thank them for their continued support of our society.

AHCS:

The Executive committee are working on an equivalence mapping document to support our members preparing for equivalence. This resource aims to provide examples of evidence of the portfolio and suggestions for any gaps a member may have in documenting evidence. The AHCS want to support all professional bodies to engage the workforce to undertake equivalence and it is understood that this can be a daunting and time-consuming task. The SVT committees aim to have this resource available in 2023 for our AVS members.

CASE:

The SVT continue as a member organisation of CASE. The accreditation of Vascular education is of paramount importance. CASE is always striving to recruit more accreditors to assist with the work. Please get in touch if this is something you have experience in and would like to get involved. Our new CASE representative for 2023 is Tanyah Ewen.

Thirtieth Anniversary Statement:

Kamran Modaresi, Vice President

The Society for Vascular Technology of Great Britain & Ireland (SVT) became a registered charity in 1992. The Society brings together those performing vascular physiological and imaging assessments. Over the past thirty years we have seen many improvements and changes such as the development and roll out of a national aortic aneurysm screening programme, centralisation of vascular services, modernising scientific careers and a COVID-19 response to name a few. Notable improvement included creation of the first national structured training, teaching and assessments of Clinical Vascular Scientists culminating in certification in the form of Accredited Clinical Vascular Scientist (AVS) status which is still held in great esteem globally.

Standardisation and quality improvement are central to the future. To achieve this the SVT pioneered nationally agreed protocols and guidelines available as a starting point for Vascular Services. All of this has enabled an extension of the AVS role from assessing and reporting disease into administering surveillance programmes, liaising with GPs, leading in vascular outpatient clinics and performing endovascular intervention. Delivering all these services in a safe manner highlights the quality of training and robustness of our accreditation process.

More recently Brexit has become a recognised challenge. The UK has always been a stronghold of vascular technological development. The deviation from European Certification (CE) marking to UKCA marking poses the biggest threat to maintaining our world leading status as a research leader. Ensuring early access to emerging technology other than from deep pockets of multinationals is easily the biggest challenge we face in the next decade. Our Society has come a long way in the last thirty years, and we look forward to a future with a stronger, better trained and more vibrant workforce.

I would like to personally thank all current and past committee members for their unstinting work in achieving such a magnificent national and international profile for our society.

I would like to thank our membership for your continued support. We have been guided by your responses to the membership survey and aim to deliver more educational content and access to grants for education and research purposes.

I would like to thank my fellow committee members for their unwavering dedication and support. Our new Professional Standards committee co-chairs Jo Walker and Alison Charig are an asset to the SVT and have provided sound advice and support to the committee. They have high ambitions for future PSC work in 2023-2024. I would like to thank them both for their support and hard work.

This year I have worked consistently with the Conference Secretary Steven Rogers and Kamran Modaresi, Vice President, both of whom have been a constant support in reaching our key targets for the SVT this year. I thank you both for your hard work and dedication.

I look forward to working with the whole SVT team in 2023.

Best Wishes,

Emma Waldegrave *AVS MSc*,

President.



30TH ANNIVERSARY

THE SVT 1992-2022