

THE SOCIETY FOR
VASCULAR TECHNOLOGY OF
GREAT BRITAIN AND IRELAND



Convention Centre Dublin
Céad Míle Fáilte
(Welcome!)

The Society for Vascular Technology
of Great Britain & Ireland

Annual Scientific Meeting 2023

**The Society for Vascular Technology of
Great Britain and Ireland**

Extend our deepest gratitude to



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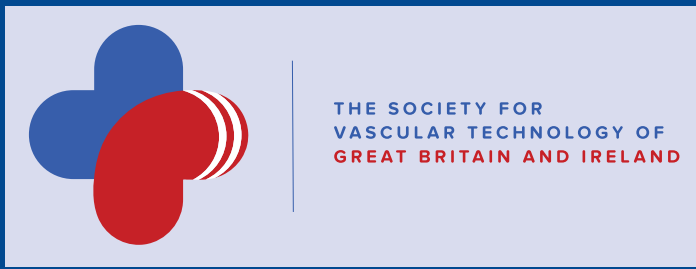
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President's Welcome

Céad Míle Fáilte!

It is with the greatest pleasure and honour that I welcome you all to the Vascular Societies Annual Scientific Meeting here in Dublin. I am delighted to see so many have travelled to be here, and I hope you will thoroughly enjoy the coming days.

This conference serves as a platform for exchanging knowledge, ideas, experience, and skills that have the potential to shape the future of vascular science. It is a testament to the power of collaboration and the relentless pursuit of knowledge that brings us all together today.

Dublin, with its rich history and vibrant scientific community, provides the perfect backdrop for this esteemed event. The city's renowned universities, research institutions, and innovative industries have consistently pushed the boundaries of scientific exploration.

Over the course of the next two days, we will hear from a diverse array of presentations, workshops, and panel discussions that will undoubtedly foster engaging conversations and inspire new avenues of inquiry. I encourage you all to get involved and share your experience.

I would like to express my deepest gratitude to the organisers and volunteers who have worked tirelessly to make this conference a reality. Your dedication and commitment in advancing scientific knowledge are truly commendable. Special thanks go to our conference secretary Klaus Bond and to our Irish colleagues for their input and support in creating an impressive workshop.

To our esteemed speakers, thank you for sharing your invaluable insights and discoveries. Your contributions will undoubtedly inspire and ignite the minds of those in attendance.

I wish you all a productive and memorable conference experience. I hope the connections made, ideas exchanged, and collaborations formed during this event lead to joined up thinking and innovation to shape the future of vascular science and surgery.

Sincerely,

Emma Waldegrave
President of the SVT GB & Ireland (2021-2023)

Wednesday 22nd November Programme

Room – Wicklow Hall 2A

07:30	REGISTRATION OPENS
09:00	WELCOME Emma Waldegrave, SVT President
09:10-12:00	ADVANCED SKILLS WORKSHOP EVAR Endoleak Imaging & Pedal Vessel Imaging
09:10-10:10	PRESENTATIONS
EVAR Endoleak imaging	
09:10-09:20	Prof. Ciarán McDonnell , Consultant Vascular Surgeon & Clinical Lead for Vascular Surgery, Mater Misericordiae University Hospital, Dublin
09:20-09:30	Louise Bowen , Senior Accredited Vascular Scientist and CEUS lead, IVS Ltd and Manchester Academic Vascular Research & Innovation Centre (MAVRIC), Manchester University NHS FT
Pedal vessel imaging	
09:30-09:40	Ben Freedman , Vascular Laboratory Manager, King's College Hospital NHS Foundation Trust
Advances in Technology Philips and Siemens talk on machine technology to be applied during practical session.	
09:40-09:55	3-D Ultrasound (<i>Sponsored by Philips</i>) Professor Daniel Staub , Angiology/Vascular Medicine, Medical Head Department of Circulation, Thorax and Transplantation, University Hospital Basel, Petersgraben 4, CH-4031 Basel, Switzerland
09:55-10:10	Advances in vascular imaging technology, Siemens
10:10-12:00	Practical skills session
10:30-11:00	<i>(Coffee served in practical demonstration area)</i>
After some initial demonstrations with patients and skilled tutors, we will proceed with 15-minute rotations around the stations.	
12:00-13:00	LUNCH AND EXHIBITION - Main Exhibition Hall
13:00-14:30	CAROTID IMAGING
13:00-13:15	National Carotid Stenosis Grading Audit Dr Osian Llwyd , Clinical Vascular Scientist & Stroke Association Research Fellow, Oxford University Hospitals NHS Foundation Trust & University of Oxford
13:20-13:35	Advances in AI to Assess Carotid Disease Dominic Howard , Consultant Vascular Surgeon, Oxford University Hospitals NHS Trust

13:40-13:55	Advances in 3D ultrasound AI to Assess Carotid Disease Dr Steven Rogers , Scientific Director & NIHR Clinical Lecturer Manchester Academic Vascular Research & Innovation Centre (MAVRIC) and The University of Manchester
14:00-14:20	Identification of the “at risk” carotid plaque Prof. Ciarán McDonnell , Consultant Vascular Surgeon & Clinical Lead for Vascular Surgery, Mater Misericordiae University Hospital, Dublin
14:30-15:00	AFTERNOON TEA - Main Exhibition Hall
15:00-16:50	VICE PRESIDENTS SESSION – Diabetic Foot
15:00-15:18	Pedal vessel 3D and contrast ultrasound imaging Joao Carreira , Research Manager & Senior Clinical Vascular Scientist, IVS Ltd and Manchester Academic Vascular Research & Innovation Centre (MAVRIC), Manchester University NHS FT
15:20-15:38	Endovascular treatment of the Below-the-Knee vessels Dr Lorenzo Patrone , Consultant Interventional Radiologist, Guys & St Thomas’ NHS FT
15:40-15:58	Treatment/management of the Diabetic foot – The bigger picture Dr Wing May Kong , Diabetic Consultant and Head of Ethics & Law Imperial College London
16:00-16:13	The Diabetic foot MDT Jodie Buckingham , Hospital Podiatry Team Leader, Diabetes Podiatry, Oxford University Hospitals HNS Foundation Trust
16:15-16:28	Automated devices for PAD population screening Prof Matt Bown , BHF Professor of Vascular Surgery, University of Leicester and University Hospitals of Leicester NHS FT
16:30-16:48	Diagnostic tools to establish the presence and severity of peripheral arterial disease in people with diabetes Pasha Normahani , NIHR Clinical Lecturer & Specialist Registrar in Vascular Surgery, Imperial College London & Imperial College Healthcare NHS Trust
17:00-18:00	Joint Symposium VS, SVT, BACPAR, SVN ‘The ideal amputation/amputee’ (Main Auditorium)
18:00-19:00	VASCULAR SOCIETY WELCOME RECEPTION Drinks served in the Exhibition Hall
19:30 onwards	SVT DRINKS RECEPTION Harbourmaster Bar & Restaurant Customs House Dock, International Financial Services Centre, Dublin 1, D01 W0X8

Thursday 23rd November Programme

Room – Wicklow Hall 2A

07:30	REGISTRATION OPENS	
08:30	WELCOME Emma Waldegrave, SVT President	
08:35-09:22	Recently Completed Studies Abstract Presentations	
08:35-08:45	An audit to determine whether patients at Cambridge University Hospitals receive two forms of carotid imaging pre-operatively when carotid endarterectomy is being considered, in line with the European Society for Vascular Surgery 2017 Clinical Practice Guidelines	Emily Alderson Clinical Vascular Scientist Cambridge University Hospitals NHS FT
08:47-08:57	Open repair (OR) Abdominal Aortic Aneurysm (AAA) patients provide additional insights into their post-operative inpatient care compared to those undergoing endovascular aneurysm repair (EVAR)	Anna Corby Clinical Vascular Scientist Oxford University Hospitals NHS FT
09:00-09:10	A retrospective study assessing the clinical significance of pre-operative carotid ultrasound screening prior to cardiac surgery	Anice Aidi Clinical Vascular Scientist West Hertfordshire Teaching Hospitals NHS Trust
09:12-09:22	A Comparison of Duplex Ultrasound and Computed Tomography Angiography in the Assessment of Internal Carotid Artery Stenosis Classification and Plaque Morphology: A Single-Centre Audit	Elizabeth Washak Clinical Vascular Scientist Guy's and St Thomas' NHS Foundation Trust
Invited Speaker		
09:25-09:38	Bridging the Gap: Implementation of Duplex Ultrasound Techniques in General Medical Ultrasound Practice	Ben Warner-Michel Ultrasound Clinical Lead & Clinical Vascular Scientist Salford Royal Hospital, Northan Care Alliance NHS FT, Greater Manchester
09:40-13:00	Scientific & Case Study Abstract Presentations	
09:40-09:50	Case Study: Acquired Arterio-Venous Fistula following Deep Vein Thrombosis	Rahul Rai Trainee Vascular Scientist Portsmouth Hospitals University NHS Trust
09:52-10:02	Crural-to-Crural/ Pedal bypasses: a reasonable alternative in challenging cases and times	Yasmeen Gouda Senior Clinical Fellow King's College Hospital NHS Foundation Trust

10:04-10:14	Creating and delivering a scientist and nurse-led supervised exercise programme at St George's hospital, London	Rhodri Furlong Clinical Vascular Scientist St George's University Hospital NHS Foundation Trust
10:30-11:00	COFFEE - Exhibition Hall	
11:00-11:10	Differences in duplex ultrasound measurement of Carotid artery blood flow velocity measurements with the subject supine versus seated up-right when performed by accredited vascular scientists	Adam Levay Clinical Vascular Scientist Independent Vascular Services Ltd
11:12-11:22	The impact of contrast-enhanced ultrasound on 5-year outcomes in patients under EVAR surveillance	Joao Carreira Senior Clinical Vascular Scientist Manchester NHS Foundation Trust
11:24-11:34	Accuracy of Doppler Ultrasound in Assessing Below Knee Arteries: A Comparative Study	Akam Shwan Clinical Research Fellow University of Leicester
11:36-11:46	Reflections of setting up a new service in the NHS; The impact of Walk-in Ultrasound Imaging for GCA patients	Dr Nazia Saeed Senior Clinical Vascular Scientist London Northwest University Hospital Trust
12:00-12:10	An unusual case of ultrasound-proven occipital GCA: disproving the misnomer of Temporal Arteritis	Angie White Royal Berkshire Hospital
12:12-12:22	A local evaluation of the fistula intervention timeline	Jeny Anton King's College Hospital NHS Foundation Trust
12:24-12:34	Service evaluation of an ultrasound service for renal artery stenosis	Alexandra Croucher King's College Hospital NHS Foundation Trust
12:36-12:46	Is Blue-Dop an accurate screening tool for determining the presence of Peripheral Arterial Disease?	Prof Mary-Paula Colgan / Jake Lantry St James's Hospital, Dublin
POSTER PRESENTATIONS - 13:00-14:00 Level 4 Foyer		
	The value of clinical assessment by vascular specialist prior to referral to vascular technology department: a quality improvement project	Akam Shwan Clinical Research Fellow University of Leicester
	Two unusual groin pseudoaneurysms	Christine Sanadi Senior House Officer Cork University Hospital
13:00-14:00	LUNCH AND EXHIBITION - Main Exhibition Hall	

14:00-14:40	KEYNOTE SPEAKERS	
14:00-14:20	Physiological Sciences/Vascular Education in Ireland Dr Siobhan Daly Head of School, School of Physics, Clinical and Optometric Sciences, TU, Dublin	
14:20-14:40	Direction of Healthcare Science Education in the UK Dr Lisa Ayers Interim Head, National School of Healthcare Science, UK	
14:40-15:30	THE GREAT DEBATE "Should Vascular Scientists adopt Advanced/Extended Practice?"	
	For	Professor Francesco Torella, Consultant Vascular and Endovascular Surgeon Liverpool University Hospitals NHS FT
		Steve Wallace, Senior Clinical Vascular Scientist Liverpool University Hospitals NHS FT
	Against	Maciej Juszcak, Consultant Vascular Surgeon Honorary Senior Research Fellow, Institute of Inflammation and Ageing, University Hospitals Birmingham
Katy Bloom, Senior Clinical Vascular & Vascular lab training lead University Hospitals Birmingham		
15:30-16:00	AFTERNOON TEA Exhibition Hall	
16:00-16:30	Jackie Walton Lecture (jointly awarded)	
16:00-16:15	Exciting new research and development in engineering magnetically targeted systems for precision drug delivery. Professor Eleanor Stride Institute of Biomedical Engineering, Botnar Research Centre, University of Oxford	
16:15-16:30	Magnetic targeted system application in vascular therapy. Professor Ashok Handa Professor of Vascular Surgery, Clinical Tutor in Surgery, Co-Director of Graduate Studies, Nuffield Dept. of Surgical Sciences, University of Oxford	
16:35-16:50	➤ Ann Donald Award ➤ Prize Giving ➤ Honorary Membership	
16:50-17:30	➤ Results from online Ballot on proposed changes to society name. ➤ SVT GB&I AGM	Trainee breakout session 17:00-18:00 Liffey Meeting Room 3, Level 1
MEETING CLOSE		
19:00-22:00	Conference Gala Dinner	

Wednesday 22nd November
Room – Wicklow Hall 2A

Advanced Skills Workshop

EVAR Endoleak imaging

Prof. Ciarán McDonnell

*Consultant Vascular Surgeon & Clinical Lead for Vascular Surgery,
Mater Misericordiae University Hospital, Dublin*



Professor Ciarán McDonnell is a Consultant in Vascular Surgery at the Mater Misericordiae Hospital in Dublin. He graduated from the Royal College of Surgeons in Ireland in 1995 and undertook his surgical training in Ireland and Australia. He joined the Consultant staff in the Mater Hospital in 2007. Professor McDonnell is also on the Academic staff of University College Dublin, having been appointed as Associate Clinical Professor of Vascular Surgery in 2015.

His special interests include: aortic aneurysm repair, carotid surgery, endovascular surgery, peripheral vascular disease and varicose veins. In addition to the Mater Hospital he also treats patients at the Mater Private hospital and the Bon Secours Hospital in Dublin.

EVAR Endoleak imaging

Louise Bowen

Senior Clinical Vascular Scientist and CEUS lead – IVS Ltd, Tomorrow Health Group & MAVRIC, Manchester University NHS FT



“EVAR endoleak Imaging using 2D duplex and 2D CEUS”

Brief Biography:

Louise is a Senior Clinical Vascular Scientist and CEUS lead based in the UKAS accredited laboratory run by IVS at Manchester University NHS FT.

Since becoming AVS Louise has been involved with the scanning of post EVAR patients using contrast for endoleak confirmation and detection. Louise has undertaken various courses to enable her to cannulate and administer contrast which has enabled the vascular lab to streamline the process of performing CEUS.

Abstract:

Clear imaging and early identification of endoleaks in post EVAR patients is important for the ongoing surveillance of this patient population. Colour-flow duplex is a useful diagnostic tool in the diagnosis of endoleaks however, colour-flow imaging does not always identify endoleaks and it can sometimes be difficult to determine the type of endoleak from these images alone. Contrast-enhanced ultrasound is an alternative imaging modality that can be used to detect endoleaks, providing images with increased contrast and diagnostic capability.

Pedal vessel imaging

Ben Freedman

Clinical Scientist

Head of service for Vascular Laboratory
King's College Hospital NHS Foundation Trust



After undergraduate studies in biomedical science at Sheffield University I started training as a vascular technologist in 2001 at King's College Hospital under the watchful eyes of Colin Deane and David Goss and have been there ever since.

Gaining MSc in Medical ultrasound from KCL and SVT accreditation in 2004, I have stayed and developed an interest in teaching and training and hold the post of honorary senior lecturer for the ultrasound programme at King's College London.

I have also completed the equivalence process gaining registration as Clinical Scientist during 2016 and the Mary Seacole Award with the NHS leadership academy in 2019. I currently manage the team of Clinical Vascular Scientists in the Vascular Lab at Denmark Hill site of King's College Hospital. I joined the SVT exec committee in 2018. My main interests are in imaging diabetic foot and vascular access.

3-D Ultrasound (*Sponsored by Philips*)

Professor Daniel Staub

*Angiology/Vascular Medicine, Medical Head Department of Circulation,
Thorax and Transplantation,
University Hospital Basel, Petersgraben 4, CH-4031 Basel, Switzerland*

Carotid Imaging

Osian Llwyd

Stroke Association Research Fellow - University of Oxford
Clinical Vascular Scientist - Oxford University Hospitals

National Carotid Stenosis Grading Audit



Osian is a Clinical Vascular Scientist at Oxford University Hospitals and a Stroke Association Research Fellow at the University of Oxford. He has been a member of the SVT since 2018 and joined the SVT research committee in 2021. His research fellowship focuses on developing methods for assessing cerebrovascular function and in developing an optimal technique that is suitable for patients. He is the project lead on the Oxford University Hospitals Carotid Stenosis Grading Audit and is also an investigator on the OXVASC population-based study that is identifying physiological indices that predict the future risk of stroke and cognitive impairment. He is also an investigator on the OXHARP trial that studies the effects of

phosphodiesterase inhibitors on cerebrovascular physiology in patients with cerebral small vessel disease.

Abstract:

An audit on ultrasound grading of carotid artery stenosis was reported in 2006 and UK guidelines were published in 2009. This audit aims to summarise current UK and Ireland practices. Seventy-two UK trusts and eight within Ireland that perform carotid surgery were identified and invited to complete an online questionnaire based on their velocity threshold criteria and practices. This talk will summarise and discuss some of the key results from the 58% of centres that completed the questionnaire.

Dominic PJ Howard

*Oxford Vascular Study Senior Clinical Fellow - Centre for Prevention of Stroke and Dementia
CI for the ADVANCE Trial
Consultant Vascular Surgeon
Oxford University Hospitals NHS Trust, United Kingdom*

Advances in AI to Assess Carotid Disease



Mr Howard an academic vascular surgeon whose research interests focus on the epidemiology of vascular disease. Since 2010, he has gathered unique data on a population-cohort of 100,000 people and published on improving the primary and secondary prevention of carotid, aortic, and peripheral vascular disease. He has won several awards, including The Queen's Prize for Higher Education, The Vascular Society Sol Cohen Prize (twice), The European Stroke Association Young Investigator Award, and the Charing Cross Symposium Clinical Prize.

Dr Steven K. Rogers

Scientific Director – MAVRIC, Manchester University NHS FT
NIHR Clinical Lecturer – University of Manchester
Vice-President Elect & Research Chair – SVT GB&I



“Advances in 3D-ultrasound Artificial Intelligence to assess Carotid Disease”



Brief Biography:

Steven is the current research chair and next Vice-President of the Society for Vascular Technology GB&I. In 2021, he was appointed as the UK’s first NIHR Clinical Lecturer in Vascular Science by The University of Manchester and is Scientific Director for MAVRIC at Manchester University NHS FT. As visiting Assistant Professor at Manchester Metropolitan University, Steven teaches and examines on both STP and HSST programmes and is part of the court of examiners for the ESVS. Steven is also a member of the Vascular Society research committee and sits on multiple Special Interest Groups.

Steven’s research interest spans advanced diagnostic vascular imaging with particular focus on novel 3D and contrast-enhanced ultrasound applications, artificial intelligence and their role in prevention and surgical planning. He regularly reviews potential manuscripts and grant applications for leading international Journals, the BHF, NIHR and UKRI. He has also advised NICE, the UK Biobank and industry.

Abstract:

Cardiovascular disease (CVD) accounts for 45% of all deaths in Europe and costs the UK economy £29 billion/year. We know that patients with symptoms associated with carotid disease (CAD) and PAD have the same high-risk of Major Adverse Cardiovascular events (MACE, inc. stroke) as those with ischaemic heart disease. Importantly, all MACE, not just myocardial infarction, are known to be associated with CAD. As the long-term effects of atherosclerosis are largely preventable, early detection by screening could reduce frequency and cost of MACE, especially when effective best medical therapy already exists. However, screening with 2D-ultrasound requires skilled staff and is unlikely to be cost-effective at population level. Using artificial intelligence (AI) combined with tomographic 3D-ultrasound we can quickly detect asymptomatic CAD in a cheaper, more effective way. AI can automatically measure the carotid disease in terms of its volume, morphology and fluid-tissue interaction to identify which people are at high-risk of MACE, so physicians can put in place early interventions.

Prof. Ciarán McDonnell

*Consultant Vascular Surgeon & Clinical Lead for Vascular Surgery,
Mater Misericordiae University Hospital, Dublin*

Identification of the “at risk” carotid plaque



Professor Ciarán McDonnell is a Consultant in Vascular Surgery at the Mater Misericordiae Hospital in Dublin. He graduated from the Royal College of Surgeons in Ireland in 1995 and undertook his surgical training in Ireland and Australia. He joined the Consultant staff in the Mater Hospital in 2007. Professor McDonnell is also on the Academic staff of University College Dublin, having been appointed as Associate Clinical Professor of Vascular Surgery in 2015.

His special interests include: aortic aneurysm repair, carotid surgery, endovascular surgery, peripheral vascular disease and varicose veins. In addition to the Mater Hospital he also treats patients at the Mater Private hospital and the Bon Secours Hospital in Dublin.

VICE PRESIDENT'S SESSION

Diabetic Foot

Joao Carreira

Senior Clinical Vascular Scientist – MAVRIC, Manchester University NHS FT
Research Manager – IVS Ltd & Tomorrow Health Group



“Calf and pedal vessel 3D and Contrast Ultrasound Imaging”



Brief Biography:

Joao Carreira is a Senior Clinical Vascular Scientist at Manchester Academic Vascular Research and Innovation Centre and leads a team of vascular scientists as Research Manager for IVS Ltd. For both roles he is based in the UKAS accredited laboratory run by IVS at Manchester University NHS FT. Over the last 7 years, Joao has been part of a research team with special focus in the development of 3D and contrast-enhanced ultrasound imaging whom have published numerous works that have been recognised by NICE. Joao's personal research interest has focused on utilising this advanced imaging technology in the fields of lower limb arterial disease and the diabetic foot and how it can be translated effectively into routine clinical practice.

Abstract:

Clear imaging of below knee and foot arteries in those in need of vascular intervention is essential for successful reconstruction planning. Contrast-enhanced tomographic 3D ultrasound (CEtUS) has proven to be an alternative diagnostic modality for imaging these vessels when compared with other standard imaging methods such as CTA, MRA or digital subtraction angiography. CEtUS has the advantage of avoiding exposure to ionising radiation and nephrotoxic contrast agents and furthermore, is quick to perform and easy to interpret in an outpatient setting. We are now exploring CEtUS' clinical utility as a treatment planning tool to determine if it can improve patient outcome.

Dr Lorenzo Patrone

Consultant Interventional Radiologist, Guys & St Thomas' NHS FT

Endovascular treatment of the Below-the-Knee vessels



Dr Patrone is a Vascular and Interventional Radiology Consultant. Since January 2016 he works in a newly created and innovative Department where Vascular Surgery and Interventional Radiology have been merged under the name of West London Vascular and Interventional Centre. His main focus is lower limb recanalisation and diabetic foot management. Moved by a true passion in teaching and sharing, he has published and presented widely on his innovative mini-invasive techniques, being involved in collaborative research, trials and endovascular training.

In the interactive talk Dr Patrone will explain the possible revascularisation options for patients affected by PAD/CLTI and how Duplex ultrasound can be used to plan even complex endovascular interventions.

Dr Wing May Kong

*Consultant Physician Diabetes and Endocrinology, London North West University
Teaching Hospitals
Head of Ethics and Law, Undergraduate Medicine, Imperial College School of Medicine*

Treatment/management of the Diabetic foot – The bigger picture



Wing May Kong is a consultant physician in diabetes and endocrinology with a special interest in diabetes foot complications. In 2017 she led a successful NHS England bid securing almost £900k transformation funding for diabetes foot care in North West (NW) London. This funding has established a diabetes foot network in NW London which has co-produced service specification for diabetes foot, foot care training resources for health professionals and online foot resources for people with diabetes as part of the innovative KnowDiabetes website. She is currently clinical lead for Diabetes Foot in NW London. In this role she has led on the development of a NW London Foot dashboard which will provide real time, patient level data on footcare, foot risk and outcomes including, healing times, emergency admissions, revascularisations and amputation. She is also part of the national

Complete Care Communities, focusing on interventions to address health inequalities in relation for diabetes foot complications.

Abstract: Diabetes foot complications can be life changing and the impact on wellbeing, quality of life and mortality is often underappreciated. Management of foot ulcers costs an estimated £1 billion per year in England and Wales alone. I will draw on our work developing the NW London foot dashboard and addressing health inequalities in relation to diabetes foot to make the case for a joined up high tech-low tech approach to sustainably transform the experience and outcomes of diabetes foot disease.

Jodie Buckingham

Consultant Podiatrist – Oxford University Hospitals NHS Foundation Trust

“Diabetic Foot Multi-Disciplinary Team”



Brief Biography:

Jodie Buckingham has held the post of Consultant Podiatrist at Oxford University Hospitals NHS Foundation Trust since 2013 and leads the Diabetic Foot Service. She has focussed on establishing the Diabetic Foot Multi-Disciplinary Team and embedding diabetic foot disease into hospital wide training for doctors, nurses, allied health professionals and non-registered staff. Jodie completed an MSc in Evidence based Health care through the University of Oxford in 2018 and became an independent prescriber in 2020. Over the years she has been increasingly involved in establishing and shaping governance frameworks and policy within individual organisations, countrywide services and across regional networks.

Abstract:

Diabetic Foot Disease is one of the largest single areas of spending in health care services, with high risk of life changing outcomes for patients. It has long been recognised that a multi-disciplinary approach to disease management can improve these outcomes. The structure, benefits, and challenges of such a service will be explored.

Prof. Matt Bown

BHF Professor of Vascular Surgery,
University of Leicester and University Hospitals of Leicester NHS FT

Automated devices for PAD population screening



Brief Biography: Matt Bown is the British Heart Foundation Professor of Vascular Surgery. He has a research interest in the pre-surgical management of AAA including screening. He is the Chief Investigator of the NIHR Peripheral arterial disease, High blood pressure and Aneurysm Screening Trial (PHAST) programme. As part of the PHAST programme his research team have been investigating the potential for automated ABPI measurement devices to be used for PAD screening in the context of the AAA screening programmes.

Pasha Normahani

*NIHR Clinical Lecturer – Imperial College London,
Specialist Registrar in Vascular Surgery – Imperial College Healthcare NHS Trust,
Zinc/ NIHR Innovation Fellow*

“Diagnostic tools to establish the presence and severity of peripheral arterial disease in people with diabetes”



Pasha Normahani is a NIHR Clinical Lecturer at Imperial College London and Specialist Registrar in Vascular Surgery at Imperial College Healthcare NHS Trust.

His primary interest is in translational research with a particular focus on diagnostic devices, digital health and artificial intelligence. His work is currently supported by funding from the NIHR, UKRI and the Wellcome Trust.

Abstract:

Peripheral arterial disease is a risk factor for cardiovascular disease, foot ulceration and limb amputation in diabetic patients. Diagnosis enables optimisation of therapies to manage these risks. Its diagnosis is fundamental though challenging. Although a variety of diagnostic bedside tests are available, there is no agreement as to which is the most useful. A recent study (TrEAD) identified visual arterial spectral waveform assessment as the most promising test. These results are being further validated in the NIHR funded DM PAD study.

Thursday 23rd November

Room – Wicklow Hall 2A

Trainee Breakout

17:00-18:00

Liffey Meeting Room 3, Level 1

Recently Completed Studies Abstract Presentations

Emily Alderson

Clinical Vascular Scientist
Cambridge University Hospitals NHS FT

‘An audit to determine whether patients at Cambridge University Hospitals receive two forms of carotid imaging pre-operatively when carotid endarterectomy is being considered, in line with the European Society for Vascular Surgery 2017 Clinical Practice Guidelines’

Emily Alderson

Cambridge University Hospitals NHS FT, Cambridge, UK

European Society for Vascular Surgery (ESVS) guidelines recommended patients who undergo carotid endarterectomy (CEA) receive two forms of pre-operative carotid imaging. This audit aimed to assess compliance with the ESVS pre-CEA imaging guideline at Cambridge University Hospitals (CUH), identify reasons for non-compliance and implement strategies to improve.

Patients who underwent CEA between 1st January 2019 and 31st December 2021 at CUH were retrospectively identified. Pre-operative carotid imaging data were collected from each patients' hospital record and percentage compliance with the guideline was calculated. Reasons for non-compliance were explored. Strategies to improve compliance were developed and implemented. A re-audit of patients receiving CEA between 1st July 2022 and 31st December 2022 measured the efficacy of interventions.

86.3% of patients in the initial audit complied with the pre-CEA imaging guideline. There was no singular explanation for non-compliance. Therefore, universal points and key clinicians in the patient pathway were identified to enable the development of a multifaceted intervention. There was 100% guideline compliance in the re-audit, this was a statistically significant improvement compared to the initial audit ($p=0.006$).

Implementation of a multifaceted CEA pathway intervention successfully improved guideline compliance at CUH without requiring changes to staffing, working pattern or equipment.

Anna Corby

Clinical Vascular Scientist

Oxford University Hospitals NHS Foundation Trust

‘Open repair (OR) Abdominal Aortic Aneurysm (AAA) patients provide additional insights into their post-operative inpatient care compared to those undergoing endovascular aneurysm repair (EVAR)’

Anna Corby¹, Klaus Bond¹

¹Oxford University Hospitals NHS Foundation Trust

Introduction

This study aimed to understand the post-operative inpatient experiences of patients undergoing open (OR) and endovascular (EVAR) repair for AAA at this Trust, as few studies have previously investigated this element of the AAA patient pathway.

Methods

This was a mixed-methods prospective service evaluation. 37 patients completed a qualitative questionnaire and the quantitative PPE-15 questionnaire. Six patients were selected for additional semi-structured interviews. The qualitative questionnaire and interview transcripts were analysed thematically. Pearson’s chi-squared test was used to test differences in the proportion of patients reporting problems for each PPE-15 question.

Results

Five themes were common across intervention groups: active participation, gratitude, the hospital environment, communication with staff and confidence in staff. OR patients generated additional unique subthemes: patience, feeling lucky, fear of infection, links to the outside and self-advocacy. PPE-15 responses across both intervention groups suggested improvements could be made in information provision, particularly regarding possible adverse events and medication side effects.

Conclusion

OR patients have additional insights compared to EVAR patients about their inpatient experience. Furthermore, aspects of the hospital environment and information provision have been identified for improvement which could contribute to enhanced experiences for future AAA patients at this Trust.

Anice Aidi

Clinical Vascular Scientist

West Hertfordshire Teaching Hospitals NHS Trust, Watford

‘A retrospective study assessing the clinical significance of pre-operative carotid ultrasound screening prior to cardiac surgery.’

Anice Aidi

West Hertfordshire Teaching Hospitals NHS Trust, Watford, United Kingdom

Carotid disease is a risk factor for stroke during/after cardiac surgery. Therefore, all patients are scheduled for a carotid ultrasound scan for the detection of carotid artery stenosis (CAS) as part of their surgical work-up. This study aims to address if it is necessary to scan all patients and if there is potential to identify certain factors which can be used to screen only those at high-risk of CAS.

962 patients who had a scan prior to cardiac surgery from 2017- 2022 were retrospectively reviewed. The prevalence of CAS and their surgical follow-up was recorded. Statistical analyses were conducted on 2 risk factors (sex and age) to determine if there was an association with the presence of CAS (>50%).

The results showed a low prevalence (12.3%) of patients that had CAS and of this, a high proportion (84%) of these patients who were not treated for their CAS prior to cardiac surgery, despite the extent of their disease. Males and those ≥ 65 years old were found to be significant independent predictors for patients having CAS.

Selectively screening only high-risk patients reduces the screening load and has the potential to save the NHS time and resources from unnecessary scans.

Elizabeth Washak

Clinical Vascular Scientist

Guy's and St Thomas' NHS Foundation Trust

‘A Comparison of Duplex Ultrasound and Computed Tomography Angiography in the Assessment of Internal Carotid Artery Stenosis Classification and Plaque Morphology: A Single-Centre Audit’

Elizabeth Washak

Guy's and St Thomas' NHS Foundation Trust

Background

Accurate and timely carotid imaging is essential for effective stroke prevention. This study aims to assess the agreement between Duplex Ultrasound (DUS) and Computed Tomography Angiography (CTA) when evaluating Internal Carotid Artery (ICA) stenosis and plaque morphology classification and whether DUS operator expertise affects agreement.

Methods

300 ICA from 150 patients who received DUS and CTA over a 24-month period were retrospectively analysed. The degree of ICA stenosis and plaque morphology descriptions were collected from imaging reports. Stenoses were graded by the North American Symptomatic Carotid Endarterectomy Trial criteria and classified as non-significant (0-49%), significant (50-99%) or occluded (100%).

Results

The study showed strong Kappa agreement ($k=0.83$, 95% CI:0.76-0.89) between DUS and CTA in stenosis classification and minimal Kappa agreement ($k=0.40$, 95% CI:0.29-0.51) in plaque morphology classification. Eleven DUS users had varying agreement ($k=0.52-1.00$). There was no significant difference in agreement between experienced and less experienced users ($k=0.81$, 95% CI:0.73-0.89) and ($k=0.80$, 95% CI:0.67-0.92) respectively.

Conclusion

The detection of significant and non-significant ICA stenoses assessed by DUS strongly agrees with CTA, whilst evaluation of plaque morphology has poor agreement. Overall, departmental carotid DUS imaging is being performed adequately at all skill levels and to standards comparable in published literature.

Invited Speaker

Ben Warner-Michel

*Ultrasound Clinical Lead – Salford Royal Hospital
Advanced Practitioner Sonographer and Senior Vascular Scientist – Northern Care Alliance*



Ben Warner-Michel is the clinical lead for ultrasound at Salford Royal Hospital. Following his training as a vascular scientist at the Jackie Walton Vascular Studies Unit in Oxford, Ben proceeded to undertake further training in the fields of abdominal, scrotal, gynaecological, and obstetric ultrasound at Salford Royal Hospital before taking the role of clinical lead there.

Ben routinely performs a mix of vascular and general ultrasound in a variety of hospital and community settings, and is particularly interested in arteriovenous fistula imaging and training general sonographers to use Doppler ultrasound techniques to a high standard.

In 2022 he was awarded best speaker in the student stream at BMUS for his talk on ultrasonic diagnosis of Fournier's disease, and he currently sits on the SVT Research Committee.

'Bridging the Gap: Implementation of Duplex Ultrasound Techniques in General Medical Ultrasound Practice'

Duplex ultrasound is a difficult modality to master, and is a tool applied skilfully by vascular scientists regularly for a wide range of investigations within the field of vascular medicine. However, there are a number of sonographic investigations within other medical areas that strongly benefit from the skilful application of duplex ultrasound, including placental insufficiency scans, hepatic and renal transplant assessment, and investigation of potentially malignant lesions.

Incorrect application of Doppler ultrasound techniques is common within general medical ultrasound practice, which unfortunately does result in rare instances of misdiagnosis and significant clinical sequelae.

In this talk I will posit that vascular scientists are ideal candidates for further training in additional areas of medical sonography for this reason, and reflect upon my own experiences as a vascular scientist-turned sonographer.

Scientific & Case Study Abstract Presentations

Rahul Rai

Trainee Vascular Scientist
Portsmouth Hospitals University NHS Trust

‘Case Study: Acquired Arterio-Venous Fistula following Deep Vein Thrombosis’

Rahul Rai, Dr Alison Charig, Dr Michelle Bonfield
Portsmouth Hospitals University NHS Trust, Portsmouth

Background

Acquired arterio-venous fistula (AAVF) following deep vein thrombosis (DVT) is uncommon, and the pathogenesis of its formation remains unclear.

Case Presentation

A 78-year-old male presented to ambulatory care with left leg swelling and a previous history of left ileo-femoral DVT 12 months prior. A lower limb DVT scan demonstrated chronic occlusive thrombus in the popliteal and distal femoral vein (FV) and partial thrombus extending from the proximal FV to the external iliac vein. The waveform in the patent channel was pulsatile, arterialised flow, consistent with an AV fistula. A connection was seen between the proximal common femoral artery and the sapheno-femoral junction, however, there was no history of vascular access via the groin, excluding iatrogenic injury as a cause.

Review

A literature analysis revealed three documented cases of AAVF following DVT with similar presentations. The pathogenesis remains unclear, however, factors such as venous hypertension, hypoxia, shear stress, inflammation, angiogenesis, and neovascularisation are thought to contribute to AAVF formation. Treatment options include stenting and embolisation.

Conclusion

This presentation is rare, with very few reports of AAVF in DVT patients. AAVF following DVT should be considered in patients with long-standing symptoms that cannot be explained by recurrent DVT or post-thrombotic syndrome.

Yasmeen Gouda

Senior Clinical Fellow

King's College Hospital, London

‘Crural-to-Crural/ Pedal bypasses: a reasonable alternative in challenging cases and times’

Yasmeen Gouda¹, Abdullah Thawabeh¹, Ruwan Weerakkody¹,
Professor Domenico Valenti¹, Hani Slim¹
¹King's College Hospital, London, United Kingdom

Introduction:

Distal and pedal bypasses origination from femoral and popliteal artery as inflow has been well documented. The aim to assess outcomes using Crural vessels as inflow for Crural and Pedal bypasses.

Methods:

Retrospectively analysis of all patients who underwent Crural-Crural/Pedal bypasses (2015-2022). Primary end points were 30-day mortality, limb salvage and graft patency rates.

Results:

A total of 41 cases presented with critical limb ischemia. Mean age 66 years (40 -87). Indication was; Ischemic rest pain (3), tissue loss (15), with gangrene (21) Acute on chronic ischemia in 1 and trauma in 1. The incidence of Diabetes mellitus, chronic kidney disease and Ischemic heart disease were 90%, 39% and 50% respectively. Two needed Immediate Hybrid II angioplasty to the plantar arch ending with ruptured anastomosis and 1 had failed bypass attempt due occluded runoff, All 3 were excluded from analysis. 12 cases were performed under Local anesthetic. The 30-day mortality was 0% and limb salvage rate was 100%. Primary and secondary patency rates at 1 year were 57% and 83%.

Conclusion:

Crural-Crural/Pedal bypass is a feasible and reliable option in selected patients. Medium term results showed good outcome with good patency and high limb salvage rates.

Rhodri Furlong

Clinical Vascular Scientist

St George's University Hospital NHS Foundation Trust, London

'Creating and delivering a scientist and nurse-led supervised exercise programme at St George's hospital, London.'

Mr Rhodri Furlong, Miss Elizabeth Gibson

St George's University Hospital NHS Foundation Trust, London, United Kingdom

The benefits of supervised exercise therapy for patients with intermittent claudication are far reaching and widely acknowledged. Despite this, the delivery of this service is underutilised within NHS hospitals despite being recommended as the initial management strategy for all claudicants as per NICE and global vascular guidelines.

This presentation will discuss how a supervised exercise programme was created and delivered by a Vascular Scientist and Vascular Clinical Nurse Specialist at a tertiary hospital in London, with specific focus on the logistical challenges that were presented and overcome. Data of a 3-month pilot will also be reported.

Adam Levay

Clinical Vascular Scientist

Independent Vascular Services Ltd, Manchester University NHS FT

‘Differences in duplex ultrasound measurement of Carotid artery blood flow velocity measurements with the subject supine versus seated up-right when performed by accredited vascular scientists.’

Adam Levay^{1,2}, Joao Carreira^{1,2}, Professor Frank Bowling^{2,3}, Dr Steven Rogers^{2,3}

¹Independent Vascular Services Ltd, Vascular Studies unit, Wythenshawe Hospital, Southmoor Rd, Manchester, M23 9LT, UK,

²Manchester Academic Vascular Research and Innovation Centre (MAVRIC), Manchester, UK,

³Division of Cardiovascular Sciences, University of Manchester, Manchester Academic Health Science, Manchester University NHS Foundation trust, Manchester, UK

BACKGROUND:

Percentage internal carotid artery (ICA) stenosis using duplex ultrasound (DUS) grading criteria is underpinned by substantial clinical trials. Careful haemodynamic measurement, including ICA peak-systolic velocity (PSV) and end-diastolic velocity (EDV), are critical for accurate stenosis decile reporting. The clinical trials performed DUS with patients supine. There is minimal evidence velocity criteria apply to the seated patient, which is often necessary due to co-morbidities. This study measures haemodynamic differences based on patient position.

METHODS:

PSV and EDV within the common carotid and ICA in 31 symptomatic TIA patients (41 stenoses) was measured using DUS in both supine and seated positions. Stenoses were graded as per SVT guidelines and blinded inter-observer differences were measured.

RESULTS:

There was no significant mean difference (6.4 ± 38.8 cm/s, $p=0.2245$) comparing PSV between position. Mean EDV difference was significantly lower in seated patients (12.9 ± 82.5 cm/s, $p<0.05$). One patient recorded a lower stenosis decile as a result. Inter-observer agreement for PSV and EDV in both positions correlated excellently ($r=0.97, 0.95, 0.95$ and 0.88) with minimal mean differences.

CONCLUSION:

Changes in haemodynamics reduces velocity criteria accuracy and may impact management decisions in patients who are borderline for intervention. Scientists should consider this measurement error when grading stenoses with patients seated.

Joao Carreira

Senior Clinical Vascular Scientist

Independent Vascular Services Ltd,
Manchester Academic Vascular Research and Innovation Centre (MAVRIC),
Manchester University NHS FT

‘The impact of contrast-enhanced ultrasound on 5-year outcomes in patients under EVAR surveillance’

Joao Carreira^{1,2}, Usman Ammar², Prof. Georgios Antoniou^{2,3}, Prof. Frank Bowling^{2,3},
Dr Steven Rogers^{2,3}

¹Independent Vascular Services Ltd, Manchester, UK

²Manchester Academic Vascular Research and Innovation Centre (MAVRIC), Manchester, UK

³Division of Cardiovascular Sciences, University of Manchester, Manchester, UK

Introduction:

In EVAR patients, computed tomography angiography (CTA) and contrast-enhanced ultrasound (CEUS) are different imaging modalities utilised for advanced definitive diagnostics when duplex ultrasound suspects a presence of endoleak or remnant aneurysm sac growth.

Methods:

Retrospectively comparison over a 5-year period of patient’s whom received either CTA-first versus a CEUS-first imaging as definitive diagnostics when suspected endoleaks or growth is identified. Outcomes were, early, mid, and late re-intervention, survival rate (all cause and AAA), rupture, and sac behaviour.

Results:

Data was available for 178 patients (CEUS=129) with 42% still to reach 5-years post definitive diagnostics. Age (86 ± 6.6 vs 87 ± 7.5), gender (female 15.5% vs 20.4%) and traditional cardiovascular risk factors were comparable across CEUS and CTA groups respectively. AAA-related mortality was not statistically different between groups. CEUS had a lower all-cause mortality (CEUS=36%, CTA=45%) but this was not significant. Re-intervention rates were not statistically different between groups (32% vs 31%) but CEUS identified significantly more type 2 endoleaks (73% vs 41%).

Conclusion:

Both groups had comparable all-cause, AAA-related mortalities and reintervention rates. Higher CEUS detected type 2 endoleaks, but similar reintervention rates, may represent a cost saving through reduced need for CTA as some patients are streamlined to 6-monthly duplex surveillance.

Akam Shwan

Clinical Research Fellow

College of Life Sciences, University of Leicester

‘Accuracy of Doppler Ultrasound in Assessing Below Knee Arteries: A Comparative Study’

Akam Shwan^{1,2,3}, Dr Tolaz Sultan², Dr Fatima Farman³, Heulwen Gilbert², Robert James², Nicola Palin², Ganesh Kuhan²

¹College of Life Sciences, University of Leicester, Leicester, United Kingdom,

²University Hospitals of Derby and Burton NHS Foundation Trust, Derby, United Kingdom,

³University Hospitals of Leicester NHS Trust, Leicester, United Kingdom

Purpose

To assess the accuracy of Doppler US in assessing below knee arteries in patients with Peripheral Arterial Disease (PAD) for whom cross-sectional imaging was deemed necessary for further management.

Method

Adult patients diagnosed with PAD who had Doppler US at a tertiary hospital between September 2021 to September 2022 were followed up. Patients who had Magnetic Resonance Angiography (MRA) before intervention were included. Below knee individual vessels were compared. Sensitivity, specificity, negative and predictive values of Doppler US compared to MRA were assessed.

Results

A total of 560 patients with suspected PAD had Doppler US and 68 (12.1%) had MRA before intervention. A total of 93 limbs were assessed. Overall sensitivity, specificity, negative and positive predictive values were 76.19%, 43.13%, 68.75%, and, 54.45% respectively. DUS sensitivity and specificity for peroneal artery were 81.57% and 55.35% compared to 92.00% and 88.37% for anterior tibial and 85.41% and 84.44% for posterior tibial arteries. Overall accuracy in non-diabetics was twice of those with diabetes.

Conclusion

Doppler US is a valuable tool for assessing below knee arteries. It has high sensitivity and specificity for Anterior and posterior tibial arteries but less for peroneal artery. Diabetes is the main patient risk factor causing inaccuracies.

Dr Nazia Saeed

Senior Clinical Vascular Scientist

London Northwest University Hospital Trust, Harrow

‘Reflections of setting up a new service in the NHS; The impact of Walk-in Ultrasound Imaging for GCA patients’

Dr Nazia Saeed¹

¹London Northwest University Hospital Trust, Harrow, United Kingdom

Giant-cell-arteritis (GCA) is a large vessel vasculitis comprising of cranial-and-extracranial disease. Vascular complications are due to delay in diagnosis and initiation of effective treatment.

Primary reports on potential applicability of Duplex Ultrasound (US) for the diagnosis of GCA dates back to 1997, yet the formal international consensus was published in 2018 outlining imaging guidelines with the description of the ‘halo sign’. Since then, the gold-standard Temporal-Artery-Biopsy is being replaced with US, which has shown to have a higher diagnostic yield, more cost-effective, and a positive prognostic impact.

The aim is to present the impact in our NHS Trust of the walk-in Vascular-imaging service for the GCA pathway. The periods in review are the trial period; March-2017 to March-2019 and implementation phase; September-2020 to Present. During the trial phase, a total of 65 patients were scanned, and 124 Duplex scans were performed during the implementation stage. Data are presented on referral patterns, demographics, diagnostic tests, and outcomes for this period of the service.

Consequently, the introduction of fast-track clinics for the urgent referral of patients to be assessed clinically and with US has significantly reduced the rate of permanent visual loss compared to standard clinical practice.

Angie White

Advanced Practitioner Sonographer

Royal Berkshire Hospital

‘An unusual case of ultrasound-proven occipital GCA: disproving the misnomer of Temporal Arteritis’

Angie White¹, Nikki Woods¹, Dr Sunil Melath¹

¹Royal Berkshire Hospital, Reading, UK

Giant Cell Arteritis (GCA) is the most common form of vasculitis. It affects medium to large arteries with a granulomatous-type inflammation of the vessel wall and can lead to blindness and stroke. GCA is commonly known as temporal arteritis (TA); TA is a misnomer, as GCA can affect vessels outside of the temporal arteries. Temporal Artery Biopsy (TAB) has long been considered the gold standard in diagnosis of the condition. Ultrasound is now proven to be a useful tool in non-invasive diagnosis of GCA; the ultrasound appearance of GCA is a ‘halo’ (circumferentially thickened and hypoechoic vessel wall). Standard protocol suggests evaluation of the bilateral axillary arteries as well as the bilateral common superficial temporal arteries (STA) and its frontal and parietal branches (1).

We present an unusual case of a patient presenting initially with occipital pain and ‘lumpiness’; corresponding ultrasound showed a halo of the occipital arteries (Figure 1) as well as the STAs and their branches (but more significant in the occipital arteries). This case indicates that occipital arteries should be imaged for those patients presenting with occipital pain, and that GCA is a more appropriate nomenclature than TA for the disease.

References

1. British Medical Ultrasound Society. Guidance for Giant Cell Arteritis Ultrasound and Service Provision: Recommended Practice Guidelines. UK 2021.

Jeny Anton

Clinical Vascular Scientist
King's College NHS Trust, London

‘A local evaluation of the fistula intervention timeline’

Jeny Anton¹, Ben Freedman¹, Raghvinder Gambhir¹

¹King's College NHS Trust, London, U.K.

Introduction:

Fistulas are essential in maintaining a kidney patient's life, however they often require intervention to maintain patency. Current guidelines recommend early treatment of failing fistulas as delays in intervention can lead to loss of access. Our aim was to establish waiting times between identifying significant stenosis or thrombus on duplex scan to intervention.

Method:

Our study retrospectively reviewed all patients with a red-coded fistula report by the Vascular Lab in 2022 to then establish waiting times for an intervention.

Results:

We identified 293 red-coded reports in 2022. Of these, 203 (69%) patients received an intervention and the average waiting time for an intervention was 27.7 days. 7 (3%) patients received an intervention on the same day as the red-coded report. 90 (31%) patients didn't receive any intervention due to a number of reasons such as unsuitability for any intervention, still had reasonable volume flow or the fistula blocked before elective surgery. In fact 16 (18%) patients with no intervention progressed to a thrombosed fistula.

Conclusion:

Although early intervention is recommended, patients are currently waiting a long time for treatment and therefore improving the time taken between identification of stenosis and treatment might reduce the number of thrombosed fistulas.

Alexandra Croucher

Trainee Vascular Scientist

King's College Hospital NHS Foundation Trust, London

‘Service evaluation of an ultrasound service for renal artery stenosis’

Alexandra Croucher¹, Ben Freedman¹, Dr Jonathan Dick¹

¹King's College Hospital NHS Foundation Trust, London, England

Introduction:

The STAR, ASTRAL and CORAL randomised control trials are a weight of evidence in favour of medication alone over revascularisation for the vast majority of patients with native renal artery stenosis (RAS). The lack of evidence supporting intervention combined with an anecdotal low positive finding rate and even lower intervention rate justified a service evaluation with a view to improving referral criteria for renal artery duplex scans.

Method:

All renal artery duplex scans performed in 2022 were retrospectively reviewed and analysed by outcome and referrer specialty. Positive findings were defined by a maximum PSV of $>1.8\text{m/s}$ and/or damped intrarenal waveforms.

Results:

Out of 930 performed scans: 651 were negative; 45 could not assess for RAS due to poor views of the renal arteries and kidneys; 190 found no severe stenosis but could not exclude moderate stenosis; and 42 were positive. Of these patients, only two had angioplasty.

The largest contributing referring group was Renal Medicine (27%), followed by General Internal Medicine (24%), Cardiology (10%), and Acute Internal Medicine ($<10\%$).

Conclusion:

There is potential to streamline the service by improving patient selection for renal duplex scans. Referral criteria which selects for patients phenotypes that improve after revascularisation could be introduced.

Jake Lantry & Prof Mary-Paula Colgan

Vascular Physiologist & Consultant Vascular Physician

St James's Hospital, Dublin

‘Is Blue-Dop an accurate screening tool for determining the presence of Peripheral Arterial Disease?’

Jake Lantry¹, Niamh O'Hare¹, Collette Fahy¹, Niamh Murphy¹, Zenia Martin¹, Adrian O'Callaghan¹, Caitriona Canning, Prakash Madhavan¹, Sean O'Neill¹, Prof Mary-Paula Colgan¹

¹St James's Hospital, Dublin, Ireland

Ankle-brachial pressure measurements (ABPIs) are increasingly used in community to assess for the presence of peripheral arterial disease (PAD). Results are both operator and equipment-dependent as well as being limited by patient compliance and arterial calcification.

BlueDop through a complex mathematical analysis of the transmitted Doppler waveform provides a cuff-free method of measuring ABPIs. The aim of this study was to compare ABPIs measurement using Blue-Dop and Falcon-Pro.

A total of 142 patients were studied. There were 44 females and 98 males. Age ranged from 29-91yrs with a mean of 68yrs. Almost one-third were current smokers and just under a third were diabetic.

We excluded calcified vessels from analysis leaving 225 limbs for comparison. We compared the higher of the two ABPI measurements for each leg and defined it as normal or abnormal.

These results yield a sensitivity of 89% and a specificity of 72% for BlueDop with a positive predictive value of 63% and a negative predictive value of 93%. Overall accuracy was 78%.

These findings support the role of BlueDop as a screening tool for PAD. Further work is required to determine its role in the presence of arterial calcification.

Poster Presentation

Akam Shwan

Clinical Research Fellow

College of Life Sciences, University of Leicester

‘The value of clinical assessment by vascular specialist prior to referral to vascular technology department: a quality improvement project’

Akam Shwan

Clinical Research Fellow

College of Life Sciences, University of Leicester

Purpose: To increase the efficiency of the vascular technology department through improving the referral pathway for better utilisation of resources.

Method: Lower Limb Arterial Doppler US referrals to the Clinical Measurement Unit at a Tertiary hospital between September 2021 to September 2022 prospectively collected. All the referrals analysed by two independent investigators for suspected pathology, referral pathway and if the patients have been reviewed by a vascular specialist (Vascular Surgery Consultant, Specialist Trainee, or Nurse Specialist) and matched with the outcome of the scans.

Results: During the 12-month period, a total of 575 lower limb arterial scans were performed, 560 (97%) for suspected Peripheral Arterial Disease (PAD). Eighty-One (14.4%) of the scans for suspected PAD resulted in normal or non-clinically significant findings. Of the 298 (53%) of the patients reviewed by vascular specialist prior to referral, 19 (6.3%) were normal in contrast to 62 (23.6%) normal scans out of total 262 (47%) referrals without vascular review. Statistically significant difference. (P Value of 0.00001).

Conclusion: Clinical examination by vascular specialist can reduce unnecessary normal scans and increase efficiency and better utilisation of resources. Appropriate referral pathway and promoting education, training and improvement in clinical skills might further improve efficiency.

Poster Presentation

Christine Sanadi

Senior House Officer
Cork University Hospital

‘Two unusual groin pseudoaneurysms’

Dr Christine Sanadi, Dr Tayyaub Mansoor, Dr Anuj Sauhta, Dr Phoebe Lyons,
Dr Matthew Larney, Dr Stephen Power, Professor Brian Manning
¹Cork University Hospital,

Introduction

We present two cases of complicated groin pseudoaneurysms which became symptomatic long after the causative event resulting in late referral.

Case 1

A 61-year-old female with a background of cardiac transplant and annual cardiac catheterizations presented with a two-year history of right groin swelling. She described acute reduction in the swelling associated with lower abdominal pain and a thrill in the groin. CT and duplex ultrasound demonstrated an arteriovenous fistula at the common femoral bifurcation with a pseudoaneurysm extending from the distal right external iliac artery. There were no endovascular treatment options and therefore she had open surgery with repair of pseudoaneurysm and surgical ligation of fistula.

Case 2

A 69-year-old female was noted to have a large left thigh swelling. An ultrasound confirmed a 10cm pseudoaneurysm arising from a branch of the proximal profunda femoris artery. A history of comminuted neck of femur fracture with intramedullary nail fixation one year previously was noted. The pseudoaneurysm was successfully treated by coil embolization of this vessel.

Discussion

These cases illustrate that groin pseudoaneurysms can present late and left untreated can continue to progress. An arteriovenous fistula is a rare but potentially life-threatening complication.

Keynote Speaker

Dr Siobhan Daly

*Head of School, School of Physics Clinical and Optometric Sciences
Technological University Dublin*



Dr Siobhan Daly is Head of School in the School of Physics, Clinical and Optometric Sciences at Technological University Dublin (formerly Dublin Institute of Technology). Whilst a physicist by training, Siobhan has more than two decades of experience in academic development and management of education in Vascular Physiology as part of Clinical Measurement Science/Physiology provision, coupled with key interactions and engagement with practicing vascular professionals and the Health and Social Care Professionals (HSCP) office of the Health Service Executive (HSE) in Ireland which oversees this discipline in our hospital system.

Abstract: Like most health care professions, the route to qualification and professional practice for Vascular Physiologists has seen many milestones and a myriad of developments in recent decades. This presentation will map such developments in the Irish context from part time education coupled with work-based learning pre 2004 to the current norm of honours degree provision. The presentation will elaborate on current developments including conversion programmes for suitably qualified graduates and look to future developments in this area including regulation and possible new models leading to qualification. TU Dublin has been the sole provider of third level education in this space since the late 1960's and continues to be a leader in the sector. Recent years has seen the welcome addition of undergraduate and graduate education offerings in Atlantic Technological University leading to increased access opportunities both geographically and in terms of university places available. Excellence in education for both entry grade vascular physiologists and in the CPD arena together with creativity and collaboration in both national and international contexts is the key to securing appropriate numbers of qualified vascular physiologists for the future of this profession. This presentation will challenge our thinking in this area.

Keynote Speaker

Dr Lisa Ayers

Interim Head of National School of Healthcare Science,



Lisa is currently the Interim Head of the National School of Healthcare Science and she has been the Training Programme Director for the Higher Specialist Scientific Training programme and the Regional Dean for Healthcare Science in the South East. She trained and worked as a Clinical Scientist in Clinical Immunology, during which time she completed a PhD, obtained Fellowship of the Royal College of Pathology by examination, and gained equivalence to join the Higher Specialist Scientific Register. Lisa is passionate about developing and expanding training and educational opportunities for Healthcare Scientists at all stages in their career.

Abstract – Direction of Healthcare Science Education in the UK

Training and education in Healthcare Scientists has evolved over the past few years. The commissioned programmes, STP and HSST, have expanded rapidly, with the alumni from these programmes supporting this growth as they move into supervisory roles. Alongside the well-established programmes, new targeted short course are being developed to support immediate workforce need. The ambitions of the Long-Term Workforce Plan include training more Healthcare Scientists, retaining those already working in Healthcare Science and reforming the way in which we all work, as such education programmes are adapting to make this possible.

The Great Debate

Should Vascular Scientists adopt Advanced/Extended Practice

A story as old as time, how do we progress professionally outside of the core scans? Vascular Technologists, Clinical Vascular Scientists, Clinical Vascular Interventionalists and so on, our titles have evolved to be more representative of our hands on involvement with patient management. With our anatomical, clinical, and technical knowledge, we are ideally positioned to progress into advanced practice and now with HCPC registration through equivalence, doors are opening and waiting lists are increasing but recruitment is difficult so why not?

FOR

Prof. Francesco Torella

Consultant Vascular and Endovascular Surgeon
Liverpool University Hospitals NHS FT



Francesco was appointed consultant vascular/endovascular surgeon in 2003. He works at the Liverpool University Hospitals and at the Liverpool Heart & Chest Hospital. He studied in Italy, Belgium and the United Kingdom and qualified in Medicine in 1992. He became a Fellow of the Royal College of surgeons of England in 1997 and subsequently trained in general/vascular surgery in Merseyside and Manchester. In 2002, he was awarded his Doctor of Medicine postgraduate degree in Manchester. He is a founding member of the Liverpool Vascular & Endovascular Service and, more recently, the Liverpool Cardiovascular Service, a national UK referral centre in which cardiac and vascular surgeons combine their skills to deliver treatment to patients with complex aortic disease. He has a research interest in open and endovascular aortic surgery, cross-sectional vascular imaging and evidence synthesis.

FOR

Steven Wallace

Vascular Laboratory Manager.
Liverpool Vascular and Endovascular Service. Liverpool University Hospital Foundation Trust.



I have been accredited to the Society for Vascular Technology of Great Britain and Ireland since 2002. During this time I have worked closely with senior surgical, radiological and managerial colleagues to further develop my knowledge and skills in vascular science and workings of the NHS.

Alongside my daily clinical work I have pursued a managerial career in vascular laboratory practice, AAA clinical skills training, training officer for STP students and recently completed the certificate of equivalence and subsequent HCPC registration.

The Great Debate

Should Vascular Scientists adopt Advanced/Extended Practice

AGAINST

Maciej Juszcak

Consultant Vascular Surgeon Honorary Senior Research Fellow
Institute of Inflammation and Ageing, University Hospitals Birmingham



I am a Vascular Surgeon, specializing in aortic pathology and focused on providing high-quality care. I am passionate about improving perioperative care standards and am actively involved in quality improvement initiatives.

My commitment to excellence extends beyond the operating room. I am deeply invested in research and education, holding the various roles including Specialty Research Lead within my NHS Trust and Specialty Lead for Academic Clinical Training in West Midlands Deanery. I am an accredited trainer, mentoring the next generation of medical professionals.

Innovation and research are at the core of my professional journey. I am actively engaged in cutting-edge initiatives, contributing to regional, national and international advancements in the field.

AGAINST

Katy Bloom

Senior Clinical Vascular Scientist - University Hospitals Birmingham



Katy Bloom is a Senior Vascular Clinical Scientist and training lead for the vascular lab at University Hospitals Birmingham. Katy qualified in 2014 on the Scientist Training Programme and became an accredited vascular scientist for the SVT in 2019.

Jackie Walton Lecture (jointly awarded)

Eleanor Stride

Statutory Professor – Department of Engineering Science & Nuffield Department of Orthopaedics, Rheumatology & Musculoskeletal Science, University of Oxford,

“Engineering magnetically targeted systems for precision drug delivery”



Brief Biography:

Eleanor Stride is a Professor of Bioengineering at Oxford University specialising in stimuli responsive drug delivery. She has published over 200 papers, 12 patents and is a director of 2 spin out companies set up to translate her research into clinical practice. She is a fellow of the Royal Academy of Engineering, the ERA foundation and Acoustical Society of America and was made an Officer of the Order of the British Empire in 2021.

Abstract:

Despite extraordinary advances in the development of new drugs and biotechnology, the rates of mortality due to cancer and cardiovascular disease continue to rise. In many cases the problem lies not with the drugs but rather the difficulty in successfully delivering them to the target site. The goal of the research being carried out in the Biomaterials and Bioengineering group is to develop new methods for delivering drugs that overcome these barriers. In particular physical stimuli such as ultrasound and magnetic fields are being used to localise the release and improve the distribution of drugs within tissue using micro and nanoscopic bubbles as delivery vehicles. This talk will present the new techniques that have been developed used to fabricate and characterise these bubbles; and how they are being translated into the clinic.

Jackie Walton Lecture (jointly awarded)

Prof. Ashok Handa

Professor of Vascular Surgery at Oxford University
Honorary Consultant Vascular Surgeon at the John Radcliffe Hospital in Oxford
He has been the Director for Surgical Education for Oxford University



Ashok Handa is Professor of Vascular Surgery at Oxford University and Honorary Consultant Vascular Surgeon at the John Radcliffe Hospital in Oxford. He has been the Director for Surgical Education for Oxford University since 2001.

He is Director of the Collaborating Centre for values-based practice in Health and Social Care based at St Catherine's College, Oxford and responsible for leading on education and research for the centre. He is Fellow in Clinical Medicine and Tutor for Graduates at St Catherine's College, responsible for over 450 graduates across all disciplines.

He has over 200 publications in vascular surgery, surgical education, patient safety and many on the topic of values-based practice, shared decision making and consent. He is the Principle Investigator of the OxAAA and OxPVD studies in vascular surgery. He has collaborated with Prof Eleanor Stride for 10 years on vascular applications of nanobubbles and is Co-PI of the Oxford University Global Surgery Research Group.

Honorary Awards 2023

Anne Farrell
&
Simon Ward

Anne Farrell



My career in vascular ultrasound began in 1988 when, after 11 happy years, I left the National Blood Transfusion Service laboratory in search of a new challenge. Little did I know when I responded to an advert for a multi-disciplinary research technician with the University of Manchester, based at Withington hospital, that it would indeed be a very exciting and interesting career; I would witness the evolution of ultrasound technology.

Initially my role was taking arm/ankle ratios and calculating Pulsatility Indices (PI) for patients undergoing vascular surgery. Undertaking this calculation involved an ultrasound probe attached to a device that resembled a radio, with heat sensitive paper and a manual plotter to trace and calculate the PI. One of the more memorable aspects of this job was sharing a scanning room with a department undertaking research into irritable bowel syndrome using hypnosis and rectal manometry. Room usage had to be carefully coordinated as ultrasound testing can be noisy - this did not help with the hypnosis!

Technology began to progress quickly in the early 1990s with the introduction of a large and bulky (by modern standards) continuous wave ultrasound machine with 2 probes, colour monitor and floppy disc storage. This was followed shortly after by a 2D scanning machine with pulsed wave Doppler and a small monitor. This system was the size of a washing machine, with a heavy mechanical phase scanning head that was prone to interference from air bubbles. However, the training process did not progress quite as quickly as the technology – a handbook was provided, and you were told to ‘see what you can do with it’!

In c.1990 a small group of vascular technicians, including myself, who often worked ‘alone in back rooms’ were invited to attend the annual vascular surgeons’ meetings. It was at one of these meetings, whilst in an Italian restaurant, that it was suggested that ‘you technicians need to form your own society and gain professional recognition for the valuable work you are doing’. As a consequence, in 1992, the first president and committee were elected, and the inaugural meeting of the Society for Vascular Technology (SVT) of Great Britain and Ireland was held in Oxford. I applied for membership and became the 13th member.

This was followed by a very busy 2 years; workload in the vascular lab was increasing, the first colourflow Duplex machine arrived in the department and my first trainee technician was hired. It was in 1995 that we were both invited to London for an SVT viva to assess our skills and knowledge. I remember the sleepless nights and the nervous journey down to London, but we were successful, and I became an accredited vascular technician.

Throughout the 1990’s, new developments in portable equipment continued, with the introduction of transcranial Doppler and cerebral oximetry. The equipment was also becoming increasingly portable, allowing us to leave the confines of the laboratory and undertaking scanning in the community. Ultrasound imaging was also becoming more widely used in industry. Hawker Siddeley (an aircraft manufacturer) came to me with small samples of carbon fibre wings to see if the Duplex ultrasound machines could detect imperfections; they could!

In the early 2000’s I was involved in the pilot study for Abdominal Aortic Aneurysm (AAA) screening, which evolved into the National Abdominal Aortic Aneurysm screening programme (NAAASP) in 2009. My home county of Greater Manchester and nearby East Cheshire were early implementers and one of the larger cohorts. I completed the National Aneurysm Screening Programme Trainers Course and become a clinical skills trainer (CST) and a QA lead. This was hugely rewarding as I became involved with the training of numerous AAA screening technicians who came from a wide variety of backgrounds.

It was evident that it was going to be necessary to train and monitor an increasing number of screening technicians to the approved standards of Public Health England. In 2017, the training for the screening technicians changed to the Health Screening diploma. I completed my certificates in Assessing Vocational Achievement (CAVA) and in 2020 the Internal Quality Assurance of Assessment Processes and Practice (IQA).

I have lost count of the number of Vascular Scientists, Screening Technicians, Nurses and Research Fellows that I have helped to train over the years. I have enjoyed the challenges, trials and tribulations in the developing field of vascular ultrasound and am very grateful for all the support that has been given to me by colleagues over the years.

Looking back, I hope that the knowledge that I have shared with trainees and others assists the SVT and the wider vascular healthcare community to continue to be a professional body with high and consistent standards.

I am extremely honoured and proud to have been offered honorary membership of the SVT and hope that in years to come my advice, tips and words of wisdom continue to be passed on.

Simon Ward



Simon the “Doppler Man”

Simon started in the world of Vascular Science back in 1987 as the “Doppler Man” at St Bartholomew’s Hospital in London, no one really knew what happened up on the 5th floor of the KGV block at Barts, the vascular ward was on the 4th Floor, Percival Pott ward, and Professors Lumley and Woods were the consultants. Every now and again, this person with a little blue box and head phones would come down onto the ward and do Dopplers. There was also a very big machine upstairs, that, I now know was a Duplex Machine. During his time at Barts, Simon met his wife Sue.

Simon left Barts to go across the river to St Thomas’s where, working with Professor Browse and Professor Bernand he further developed his skills in Vascular Ultrasound,. Simon was tempted away from the NHS and vascular scanning for a few months, to work in the pharmaceutical industry, but soon realised this wasn’t for him. He swiftly returned to vascular scanning working in Cheltenham, where he was involved in the beginnings of AAA screening. Plans were in place for a permanent move to Cheltenham, when in 1990, Simon was tempted back to London by Professor Ray Gosling to do a research project resulting in an MPhil at Guys. He had to juggle his studies and research with looking after a bouncing baby, so that Sue could go back to work full time to pay the bills, a research bursary didn’t pay will in those days!

At the end of the research project, it was time for Simon to get a “proper” job, the choice was between Brighton and Burnley... the seaside won and Simon started in Brighton in August 1993. The Royal Sussex County Hospital, the vascular assessment unit used to be on the ground floor of the old Barry Building, here Simon set up the Vascular Scanning unit for the hospital. The setting that totally inadequate and in 1999 the Vascular Scanning unit and the vascular wards moved out of the very old Barry building into the Thomas Kemp Tower. The new scanning unit was next to the vascular ward.

Simon was the SVT Committee Membership secretary from approximately 1995 to 1998. This was the committee that moved the SVT from an information sharing group to a professional body with the introduction of the AVT exam and qualification, hence he was one of the first accredited vascular technologists. This same committee was also responsible for pushing forward with the additional volumes of Vascular Laboratory Practice. Simon was a co-editor of part III - Lower limb arterial assessment.

Being one of the first accredited scientists in the country himself, Simon has been involved in the training of many vascular scientists. He has paid a very active part in the development of the Sussex Vascular Network Scanning service, with scanning now on 5 sites across the network. He has also been involved in the local National AAA screening programme, being the QA lead.

Simon retired from full time work in May 2023, just missing out on his 30-year, long service award. Not wanting to give up completely he now works two days a week at the Freeman Hospital in Newcastle, here he can do what he enjoys, scanning, without the stress of running a department. Simon is waiting for Sue his wife, a VNS to retire at some point next year.

Away from the world of vascular science, Simon is an avid rugby fan, having played until his knees gave up. He, managed to play a few minutes of rugby with his two sons before he finally hung his boots for good. He is a vice president of Hove RFC, and ran the “mighty beef”, the third team for many years. He still pops in to see them when he’s back in Brighton. Despite his hip and knee replacements, Simon enjoys skiing, and will be on the slopes again in December. Simon is married and has two sons and a daughter, all grown up and living in London.

Trainee Breakout Programme

Thursday 23rd November 2023, 17:00 – 18:00

Liffey Meeting Room 3, Level 1

17:00-17:15	REVIEW OF THE ACCREDITATION PATHWAY Review of the process of gaining your AVS and maintaining it beyond accreditation.
17:15-17:25	TRAINING IN VASCULAR ULTRASOUND An overview of suggested experiential learning while training.
17:25-17:45	PRACTICAL EXAM DISCUSSION AND QUESTIONS Q&A with a practical exam assessor and a recently passed AVS.
17:45	SIGNPOSTING AND CLOSE Close of session including contact details for committee and signposts for trainee wellbeing.

ANNUAL GENERAL MEETING

Thursday 23rd November 2023

16:50-17:30

AGM Agenda

- 1) *Creation of a new trading name - Results of the online Members Ballet***
- 2) Education Committee** *(verbal report)*
- 3) Presidents Report** *(verbal and book report)*
- 4) Professional Standards** *(verbal report)*
- 5) Research Committee** *(verbal report)*
- 6) Membership** *(conference book report only)*
- 7) Treasurer** *(conference book report only)*
- 8) BMUS Report** *(conference book report only)*
- 9) Website Report** *(conference book report only)*
- 10) Q&A open session**

Education Committee Report

Educational pathways:

The implementation of the new STP curriculum in 2022 has now seen a full year in practice with positive review and congratulations to all those who have graduated this year!

The new Healthcare Science (Vascular Science) BSc took its first intake of 5 direct entry and 4 apprentice students in September 2023 at the University of Gloucestershire. 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 and for those centres looking to develop these roles within their own workforce.

Work towards updating the level 4 vascular units with Pearson to make them more fit for purpose is underway and an SVT working group is working with the University of Gloucestershire to produce the end point assessment content for the degree which realises the discussions held in previous SVT Heads of Service meetings. With full support of the NSHCS we will be aiming for CASE accreditation.

For any advice regarding apprenticeship funding etc please get in touch via

educationpathways@svtgbi.org.uk

Update of documentation:

The SVT accreditation document is currently undergoing updates and 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 is undergoing a new update. Please keep an eye on the education section of the website for more information.

Theory Exams:

From Spring 2024, our current exam provider, Inteleos, will no longer be hosting our SVT theory exams. The theory exam team are working hard to implement a new provider ready to start with a smooth transition. Any changes to how we sit the theory exams in the future will be communicated to the membership by email in due course, so please keep an eye out for this. In the meantime, please continue to take your theory exams as normal. If you are having issues accessing these exams, please contact: theoryexam@svtgbi.org.uk

Practical Exams:

You may have noticed a new feature in the 2023 newsletters – a big congratulations to all newly Accredited Vascular Scientists! You can opt out of being announced in the newsletter (the practical exam team will contact you on accreditation of how to go about this), otherwise you can expect to see your name in shining lights for this huge achievement!

All practical exam documentation was updated earlier this year with minor changes to the scoring system. As always, we encourage anyone to volunteer to be an assessor for the practical exams; we currently have a particular need for anyone based outside of large cities.

If you want more information on being an external examiner or would like to ask any questions relating to the practical exams, please check out the education pages on the SVT website or contact practicalexam@svtgbi.org.uk

Study Days

Recordings of the Fundamentals Days were available on demand from 28th February to 28th March this year and were watched by many with a high number of accredited vascular scientists using the sessions as refreshers.

The Revision Days were held in person this year on 15th and 16th May 2023 with 48 attending over the 2 days. Some great feedback was received across the board 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:

We are currently undergoing our annual audit of 10% of the membership with 30 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 46 members this year who have been contacted for insufficient points, of which 6 are still outstanding.

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

The Committee:

To begin, I would like to say a massive thank you to Hannah Lines who has sat on the Education Committee for many years as CPD officer and since 2020, sat as Chair for Education stepping down this year as her tenure ended.

Hannah Lines has been an absolutely fantastic Chair and as a committee we would like to thank her for the endless energy that she gave to the role and the unwavering support that she gave to us – she is handing the role over in a very good place. Thank you, Hannah – you will be very much missed.

I would also like to say a very big thank you to Helena Edlin who has been on the committee for many years as our Educational Pathways Lead and has now stepped away from the role. Helena has worked tirelessly across many different organisations representing the SVT for various elements of vascular science education from Level 4 to Level 8. Helena's knowledge and wealth of experience will be truly missed on the committee, and I wish her the very best for the future. Michael Davis will be stepping in as our new Educational Pathways Lead – congratulations!

A big thank you also goes to Felicity Woodgate and Ryan Ward who have also both stepped away from the committee this year. Over the past few years, Ryan has worked hard to support various Educational Pathway developments alongside Helena and Felicity has worked diligently to support surgical training days held at previous ASMs.

Now it's time to say a big welcome to Alex Webb and Louis Alexnader who this year took on the roles of Fundamental Days Officer and Online-CPD Questions Officer, respectively, and Emma Blair who has joined as Practical Exam Co-Officer – welcome!

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

Alex Webb, Amy Bolsworth, Ana Morais, Caroline Dainty, Emma Blair, Laura Haworth, Louis Alexander, Michael Davis, 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 Williamson

Education Committee Chair

President's Report

The SVT has enjoyed a highly productive year, and I'm tremendously proud of the accomplishments made in pursuit of the ambitious goals set out last year. Our foremost objective was to expand access to educational content for our members. To achieve this, we embarked on the development of a comprehensive study day program, which includes face-to-face advanced skill workshops, on-demand content, webinars, as well as our fundamentals and revision day programs for trainees. Our collective efforts yielded two successful London-based advanced skill workshops: the Upper Limb Arterial and Venous Day and the Giant Cell Arteritis Day. Regrettably, we were unable to proceed with the planned EVAR workshop in Manchester due to insufficient registration numbers.

As part of a pilot initiative, we made the decision to record the workshop content, making it available as an on-demand learning resource for our members and beyond. This endeavour proved to be a resounding success, with an additional 44 bookings received for the on-demand Upper Limb workshop content. Furthermore, the Giant Cell Arteritis Day was also recorded, and the recordings can be accessed after online registration. These recorded workshops, along with future ones, will contribute to a valuable content library, accessible to our members and other allied health professionals for their Continuing Professional Development (CPD).

Our research committee successfully finalised the AVS research curriculum, complemented by a research series featured in our newsletter, as well as a research webinar series, all provided at no cost to our members. The webinars garnered significant interest and are readily available for on-demand viewing.

In July of this year, the new membership fees came into effect, marking the first increase in many years. I want to express my gratitude to all of you for your continued support and hope that you are enjoying the enhanced member benefits.

I'd like to acknowledge the efforts of Emma Tucker, our dedicated administrative support, who has worked closely with me and all committee chairs to implement behind-the-scenes changes aimed at enhancing committee productivity. Emma has been a valuable support to the SVT, facilitating the delivery of educational content through study days, on-demand content, webinars, newsletters, and the website. Emma will continue to support us with the forthcoming website changes next year, which are designed to improve membership management, CPD opportunities, and event coordination. I'd like to extend my heartfelt thanks to Emma for her unwavering support during my term in office, and I'm delighted to announce that she will continue to work for the SVT in the foreseeable future.

On September 11th, we conducted an Extraordinary General Meeting of the membership, following a vote at the Executive Committee, to propose a name change for the society. Our society's name has remained unchanged since its inception 30 years ago, while our professional title has evolved to Clinical Vascular Scientist since the early 2000s. Aligning the two to better represent our membership and contemporary times became a priority. The online ballot concluded on October 23rd, and the results will be shared with the membership. Additionally, we will vote at the Annual General Meeting in Dublin to address updates and changes to our constitution, including changes to language making it more inclusive and reflective of our Healthcare Science community. These proposed changes will be presented at the Annual Scientific Meeting.

The Education committee executed an exceptionally successful book grant scheme this year, resulting in numerous departments acquiring a diverse selection of new Vascular theory books. We hope you found this initiative enjoyable, and we eagerly anticipate running it again in the near future.

I would like to extend my deepest appreciation to Hannah Lines, Chair of the Education Committee, for her adept leadership in steering the education committee and steadfastly supporting the broader

objectives of our society over the past three years. Hannah's exemplary work in updating and maintaining the Education pages of the website and her diligent efforts behind the scenes to update all guidance and documentation are truly commendable.

As of this July, Hannah handed over her position as Chair to Hannah Williamson, and we look forward to her continued contributions to the committee's success.

The Equivalence award will continue in 2024 and the Education committee are working on an education grant scheme for the wider membership. We will keep you updated via the newsletter and website.

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 funding is crucial in supporting the membership to continue their research activities whilst offering a clinical service within the NHS and presenting the outcomes at the annual scientific meeting.

I would like to extend my sincerest thanks to Steven Rogers, Chair of the Research committee for his leadership and dedication to the Research committee.

The Professional Standards committee has dedicated the year to updating and developing crucial documentation and guidance for safe vascular ultrasound practice and professional development. We extend our heartfelt gratitude to Jo Walker for her unwavering support, sound guidance, and outstanding leadership. Your service is greatly appreciated.

Our partnership with BMUS remains robust, and we are delighted to continue organising the vascular stream at the BMUS Annual Scientific Meeting (ASM). Tanyah Ewen has once again excelled in planning an outstanding Vascular stream scheduled for December 6th. The annual conference will take place at York racecourse from December 5th to 7th. My thanks go out to the whole BMUS team for their support professionally and administratively and to Tanyah Ewen our BMUS and CASE representative.

The accreditation of vascular education holds utmost importance, and CASE is dedicated to expanding its pool of accreditors to strengthen this critical work. If you possess experience in this area and are interested in contributing, we encourage you to reach out and get involved. Tanyah Ewen is the current SVT CASE representative, and we are looking for more volunteers to join and represent the SVT.

Our collaboration with the Vascular Society in jointly organising the Vascular Societies Annual Scientific Meeting remains a key aspect of our efforts to deliver the foremost Vascular conference in the UK. This partnership has not only resulted in a successful conference but has also led to our invitation to participate in the Vascular Clinical Commissioning Group. The inclusion of our representation, alongside that of the SVN, in this group highlights our collective commitment to advancing vascular clinical initiatives and underscores the importance of our role in shaping the field's future.

The Vascular Services CRG, established in 2013, now operates in its fourth iteration within the Internal Medicine National Programme of Care (NPoC), one of six national programs under Specialized Services commissioned by NHS England. This CRG takes a 'lead and inform' approach, encompassing arterial and deep venous interventions, with the goal of aligning commissioned services with the Vascular Service Specification of NHS England. It serves as an advisory body to Specialised Commissioning, striving to enhance the quality of care, reduce health disparities, and promote evidence-based, data-driven, patient-centered interventions and care pathways. Additionally, it advocates for coordinated health services to prevent patients from slipping through the cracks and mitigate the risk of harm. Pherwani AD, Sayers RD. (2023). The CRG for Vascular Services *J.Vasc.Soc.G.B.Irel.* 2(2):62-64.

Towards the end of 2022, Neeraj Bhasin, Chair of the Circulation Foundation, approached the SVT with a proposal that the CF assume the role of the charity representing all vascular societies. This

proposal aimed to align with existing partnership arrangements with the ASM and journal, while also recognising the multidisciplinary nature of our professional work. We believe that this step will enhance the charity's strength, make it a more representative body of the professional vascular community, and improve its sustainability and resilience.

Since the initial approach, we have established Terms of Reference for this partnership and an MOU (Memorandum of Understanding). The SVT, SVN, and Rouleaux Club have all expressed their agreement with this collaborative venture. A member from the Executive committee will be appointed to the role of Circulation Foundation representative, facilitating a closer connection between our organizations.

As this marks my final Presidential address, I would like to take this opportunity to express my deep appreciation for the unwavering commitment and support of my dedicated colleagues on all four committees of the SVT. They have consistently demonstrated a relentless pursuit of excellence, and their hard work has not gone unnoticed.

Throughout the year, I've had the privilege of collaborating with several key stakeholders, including the Executive committee, the Professional Bodies Council of the AHCS, the Vascular Society, CASE, the Circulation Foundation, and the Vascular CRG. Their collective efforts are instrumental in shaping the future of healthcare science and Vascular services, ultimately leading to improvements. I extend my heartfelt thanks to all of them for their inclusiveness and unwavering support.

I am confident in the continued success of the society under the experienced leadership of Kamran Modaresi, together with the committees of the SVT and our partners we will continue to achieve great success.

I would like to extend my thanks to our terrific membership for your continued support, dedication, and contributions. We were delighted to see so many of you at our face-to-face study days and webinars. We are committed to serving you and look forward to continuing to do so.

Sincerely



Emma Waldegrave

President of the SVT (2021-2023)



Professional Standards Committee Report

It has been another busy year for our PSC team, and I'd like to thank the whole team for all the hard work in these voluntary roles. Our current aim is to support both individual members and all vascular departments with professional and safe practice.

For all our Clinical Vascular Scientist members we ensure you have up to date clinical resources such as the PPGs for performing vascular diagnostics to our SVT agreed standard, safe scanning practice articles, ambidextrous scanning recommendations, scan time recommendations, and RSI prevention advice.

To support individuals and services with career development we are currently working on developing the 'Professional Practice' webpage to include Clinical Vascular Science Job Profiles, job planning guidance, and Clinical Vascular Science generic job descriptions, alongside supporting the career structure framework. We still recommend individuals to consider undertaking STP equivalence to allow registration with the HCPC, and the SVT are working with the AHCS to try and align the AVS accreditation with the equivalence standards to streamline this process.

To support vascular diagnostic service quality and development, aligning with IQIPS V2, the PSC are currently working on a 'Service Management' webpage, to include Image and report Audit Guidance, a Quality Manual Template, and a Vascular Service Quality Management article. These resources will sit alongside the current Ultrasound equipment quality assurance guidelines, and uncertainty of measurement guidance. The SVT PSC recommends that all services should consider IQIPS accreditation, or at least use these standards to align with individual service provision.

The usual business of updating the Professional Performance Guidelines (PPGs) has been undertaken, and a reminder that these are now all available to the public for reference via the website. We will shortly be publishing a Doppler waveform article which outlines recommended descriptors which should be considered and used for reporting. It is important for all departments to ensure that protocols or standard operating procedures documents are aligned and referenced with the SVT PPGs.

We also acknowledge all the amazing work Kamran did with the PSC, who now will be taking a leading role as our SVT President.

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

On behalf of the PSC team: Eleanor Blaxland, Alison Charig, Maria Morgan, Ved Ramnani, Nicholas Sanudos

Jo Walker,

PSC Chair

Research Committee Report

The research committee have been busy over the past 12-months with lots of refreshing, rebranding, and a significant number of educational outputs which we hope the membership have enjoyed. You will have noticed that the Website Secretary, Rob James, has been doing some excellent work improving the website. We will review and refresh the content on the webpages over the coming months.

To achieve these milestones our committee has almost doubled in size and is composed of Steven Rogers (Chair), Nida Nadeem (Deputy Chair), Yvonne Sensier, Laura Scott, Osian Llwyd, Isaac Colliver, Emily Morgan, Ben Warner-Michel, Siobhan Trachowski and Alannah Morley-Brown.

Webinars:

Following on from the success of the research workshop held at the 2021 ASM, the committee has been running a monthly one-hour webinar (inclusive of the summer break) that aims to provide educational content and a point of advice for the membership. The plan is to walk members through the research roadmap and provide visual teaching to coincide with our research series in the newsletter and extensive guidance on the website. The next session on basic statistics has been moved to November and this will be followed by webinars on dissemination and fellowships in Q1 of 2024. We are working on a programme of more focused and specific webinars for Q2 onwards and encourage you to let us know if there is anything you would like us to cover. If you have been unable to join the webinars live, they have been recorded and you can obtain the password by contacting the email address at the bottom of this report.

Newsletter Research Series and Bitesize Research:

We have continued to write the newsletter series which you will have seen took a slight hiatus. This was intentional to sync the series with the webinar series as they are on the same topic/complement one another. You can find the back catalogue in the research section of the website. We hope you have found these useful as their aim is to provide a light overview of various steps in the research pathway. Still to come will be articles on funding, basic statistics, and dissemination. Alongside these articles you will have noticed that Bubbles has had a complete rebranding and is now called Bitesize research. Rather than continue the eclectic review of different manuscripts we have decided Bitesize will be a more focused critical appraisal, in short format, of important and relevant publications along one theme. Our first issue was on asymptomatic carotid disease and subsequent editions will be on topics such as waveform terminology and venous stents. If you have a topic or an idea you would like us to cover or if you would like to write and edit yourself, please get in touch via the email address at the bottom of this report.

SVT Research Grants:

We are continuing to offer the SVT Research/Innovation 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 later. There is a total of £9,000 available per year, with a maximum of £4,000 per award. New for 2023 was 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 to kickstart the grant writing process. Winners of the most recent award are being announced in the AGM presentation and a new round for both the research award and writing grant opens today and will close at the end of March 2023. Congratulations to all our successful applicants.

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.

There have been no editorial board meetings since the last AGM and we have no further updates on the progress of the Journals application to join PUBMED. However, we do encourage all SVT members to consider submitting their works to the journal.

Vascular Society Research Committee and Special Interest Groups:

The work of the James Lind Alliance Vascular Priority Setting Partnership was successful and over £14-million in funding has been gleaned from the NIHR to support national studies which address them. Key studies many members may be involved in designing include EVOCC, THRIVE, PEADIS and VEIN to name a few. I have continued to attend the Vascular Society research committee where a lot of discussion has focused on what future roles the Special Interest Groups will play, and whether a technology SIG is now needed. Whilst these discussions are still ongoing, I am pleased to report that an SVT member now sits on every SIG to ensure our interests are heard.

Research Module:

The committee has continued to develop the syllabus for the new research module which has now been approved by the SVGT Executive Committee after it was mapped for equivalence to the STP syllabus. The details of how this module will work in practice, how it will affect members and importantly at what timepoints will be presented at the AGM. However, we hope you agree that the module is essential in helping members obtain the research evidence needed for STP equivalence which we encourage everyone to consider.

I have agreed to continue as research chair for at least the next 12-months as we seek a new chair whilst I transition into the vice-president role. Our aim is to have the new chair in post, following a period of shadowing prior to my commencement as president in November 2025.

Finally, on behalf of the entire membership, I wish to thank all committee members for their continued hard work, often late in the evening, at weekends and frequently to tight deadlines. We hope you, the membership, have enjoyed the changes and increased content being provided which we will carry into the next financial year.

Please contact us with any questions, comments, or suggestions via research@svtgbi.org.uk

Kind Regards,

Dr Steven K. Rogers,

Research Committee Chair and Vice-President Elect.

Membership Report

Membership numbers as of October 9th 2023 are as follows.

Total:	511
Associate:	20
Honorary:	14
Ordinary:	199
Accredited Vascular Scientist:	278

This year has been an exciting one with many new membership benefits coming to fruition following development of an education program for SVT members. This year the SVT hosted two face to face advanced skills workshops in London and recorded these events allow all SVT members to access via on demand content. The research webinar series have been a huge success and these are totally free to our members to watch on demand following simply registration via the events page of the website.

A slight change was made to the renewal of membership process. Previously, there was a longer window of renewal to enable the treasurer and membership secretary to verify payments via bank statements but, now that all renewals are done on the website, this is no longer required. The grace period has been reduced but this has led to an increase in lapsed members. So, we would urge you to keep an eye out for your renewal reminder emails.

This year we have had 34 new member registrations, including:

Modernising Scientific Careers Trainees:	9
AVS Trainees:	14
Other Trainees:	10
Non-Disclosed:	1

As always, if you have any issues regarding your membership, please contact the membership team who are always happy to help.

Kind Regards,

Lynne McRae

Membership Secretary

Treasury Report

SVT Treasurer report - Year Ending 31st August 2023

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

Account balances as 31st Aug 2023

Reserve account	£132497.69
Current account.....	£19328.08
Total Funds.....	£151825.77

Current account

Opening balance.....	£15294.36
Closing balance.....	£19328.08
Income	£47114.11
Transfer from reserve a/c	£15000.00
Expenditure	£57440.40

Reserve account

Opening balance (01.09.22).....	£146289.47
Transfer reserve to current a/c	£-15,000.00
Closing balance.....	£132497.69

BMUS Report



It has been a busy year for BMUS!

Preceptorship Endorsement Scheme:

This is a simple scheme that aims to recognise departments that are able to offer a supportive environment for ultrasound practitioners of all grades and experience. The scheme has been designed to help departmental managers and ultrasound leads support, develop and retain valuable workforce, and identify how well they are supporting staff and highlighting areas for improvement. The scheme provides departments with a useful checklist of essential and desirable criteria associated with best practice and equitable staff management.

BMUS Travelling Ambassador:

The Travelling ambassador will visit centres around the country, highlighting ultrasound and BMUS, in order to promote best practice and training in ultrasound topics. The aim is for the Ambassador to visit a minimum of 5 centres that might not otherwise have access to such opportunities. A bursary of up to £3000 is available to support the Ambassador in delivering this fantastic opportunity.

Study Days:

BMUS run a variety of study days and courses throughout the year. These are spread across the country and differ from year to year in terms of speciality topic. A few core days are held such as Gynaecology, Head and Neck and Musculoskeletal skeletal ultrasound, which are run on an annual basis. Fortnightly webinars are also held online on a variety of topics, to name a few Physics, Veterinary and Recruitment and Development.

This year BMUS has updated their website, making the website easier to navigate for its members and keeping them updated on all the goings on, study days, webinars, professional and clinical guidance, clinical protocols and useful resources.

Annual Scientific Meeting:

This year's meeting will be held at York Racecourse 5th – 7th December 2023. This is the 54th Annual Scientific Meeting. There is a full and varied programme covering all aspects of ultrasound in the form of presentations and hands on workshops.

Vascular imaging is obviously a very important component of the annual meeting, and there are two full lecture-based vascular sessions scheduled for the second day, and then two practical sessions – on carotid and upper limb scanning –for the third day.

BMUS try to define an overarching theme for their annual scientific meetings, and this year they have chosen 'pushing the boundaries of medical imaging'. The idea here is to get the organisers, speakers and attendees to think slightly more deeply than they might otherwise have done about new techniques, new technologies, and, if appropriate, new ways of working in ultrasound imaging.

I would like to thank everyone who has agreed to present at this year's meeting and contribute to the practical sessions. Without your support this event would not be possible.

The main vascular session is on Wednesday 6th December. The first session will look at pushing the boundaries of vascular ultrasound. The topics will include artificial intelligence, the use of deep learning within ultrasound equipment and Vflow.

- Deep Learning
- Bridging the Gap: Implementation of duplex ultrasound techniques in general medical ultrasound
- Vflow – Promising Vascular Study Tool
- Bilateral Persistent Sciatic Artery
- A multidisciplinary team-led approach to improving care for patients with suspected giant cell arteritis

The second session will include pelvic congestion imaging, tumours that mimic DVT and the importance of carotid velocity criteria.

- When an occluded vein isn't thrombus - a case study on Leiomyosarcoma
- Carotid velocities – the importance of correct measurements
- Disparity in Pelvic Vein Incompetence: Time To Recognise and Treat in Women
- Pelvic Vein Embolisation, the Vascular Radiologist Perspective

I would also like to take this opportunity to thank Prof Adrian Lim, Dr Peter Cantin, Joy Whyte and the wider BMUS council for their continued support professionally and administratively of the SVT. I would also like to thank Emma Tucker “BMUS Operations and Development Manager” for her continued support and advice.

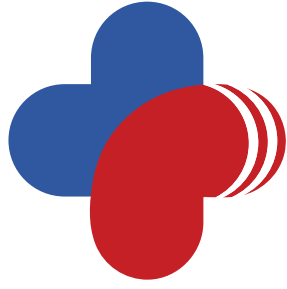
Website Secretary Report

Website:

- The front end of the website has been partially updated
- A deeper review into the structure and functionality of the wider website is still in progress
- The major email communications fault has been resolved

Social Media:

- Total social media following has increased by 32% (year-over-year)
- Continued efforts to improve visibility and awareness of the SVT and its wider activities will continue



THE SOCIETY FOR
VASCULAR TECHNOLOGY OF
GREAT BRITAIN AND IRELAND