



# VASBI

ANNUAL MEETING 2018



## DELEGATE HANDBOOK

27<sup>TH</sup> - 28<sup>TH</sup> SEPTEMBER 2018

Portsmouth Marriott Hotel,  
Southampton Road, Portsmouth, PO6 4SH

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# WELCOME TO VASBI 2018

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**Dear All,**

Welcome to the historic naval city of Portsmouth for the 9th Annual conference of the Vascular Access Society of Britain and Ireland.

I think and hope you will all agree that this is another excellent looking meeting which we all hope you enjoy from both scientific and social aspects and are able to take things back to your respective units to improve the care you offer to your patients.

I would like to thank all the members of the VASBI council for all their help and support during my first year as president and with the development of the programme for this meeting. I would also like to thank our visiting speakers for their engagement with our society and we look forward to their sessions.

A lot has happened behind the scenes this year. VASBI has become an affiliate member of the BRS and we look forward to a closer working relationship with them. Working with the BRS and MAGIC group, we have developed clinical practice guidelines for needling and, following a Coroner's inquest, guidelines and information related to the prevention of life threatening bleeds for AVFs and AVGs. The latter being adopted by the ambulance services and will be incorporated into their haemorrhage algorithms. Both will be available via the VASBI website.

As I hope you have all seen, the VASBI website has been updated and upgraded thanks to the efforts of Ruth, Steve and Hiren. Please visit it as often as you can. The more it's visited, the more it will grow and improve.

Membership has always been part of the annual conference fee, but for various reasons we need to change how this is paid and managed. Starting after the conference, membership for consultants will be £60 per year and for all other members it will be £30 per year. The majority of this will be refunded by early bird registration at the annual conference. However, next year there is no VASBI annual conference as we will be having two joint meetings. The first will be with VAS in Rotterdam in April 19. Sarah Lawman and myself are on the organising committee and the meeting is looking very good and I would implore as many of you to go as possible. Abstract submission will be open from Sept to December so get your writing heads on now. The second joint meeting is with the home therapies meeting in Manchester in Sept 2019. Details for both will be on the website. We would be grateful if anyone registering for VAS does so via the VASBI website as this will guarantee your membership reduction. The annual conference will return in Sept 2020. Details will be on the website.

Finally, another reminder that no heels are to be worn at the Gala diner on Thursday night on HMS Warrior as the stairs are steep and hazardous but also because they will damage the wooden flooring.

Thanks again for attending and have a great meeting.

**Mr Paul Gibbs**  
**VASBI President**

# PROGRAMME - DAY ONE

## THURSDAY 27<sup>TH</sup> SEPTEMBER 2018

ALL SESSIONS WILL BE HELD IN THE MARIE ROSE SUITE UNLESS OTHERWISE INDICATED

Time	Session & Topic	Chair*/Speaker
08:30-08:55	<b>Registration</b> ( <i>Marie Rose Foyer</i> )	
09:00-09:15	<b>Welcome, VASBI President</b>	Mr Paul Gibbs
09:15-10:15	<b>Scientific Session 1</b> ( <i>See page 6</i> )	Mr Paul Gibbs* & Mr James Gilbert*
10:15-10:30	<b>SONAR &amp; VASBI Website Update</b>	Mr Gavin Pettigrew & Mr Hiren Mistry
10:30-11:00	<b>Coffee Break - Exhibition</b> ( <i>Chichester Suite</i> )	
11:00-12:15	<b>Plenary 1: MAGIC Update &amp; Dialysis Controversies</b> <ul style="list-style-type: none"> <li>• Abstract: MAGIC &amp; KQUIP</li> <li>• Collaborating to Drive Quality Improvement in Vascular Access Care</li> <li>• MAGIC Update</li> <li>• Needling an Endo AVF Fistula</li> <li>• Debate: To Buttonhole or not to Buttonhole - That is the Question?</li> </ul>	Sr Margaret Aitken*  Ms Leeanne Lockley  Ms Alison Swain Ms Karen Tullett Sr Sarah Kattenhorn & Sr Margaret Aitken
12:15-12:45	<b>Oral Poster Presentations</b> ( <i>See page 25</i> )	Dr Jennifer Hanko* & Mr Hiren Mistry*
12:45-14:00	<b>Lunch - Exhibition - Industry Symposium - Posters</b>	
13:15-13:45	<b>W.L. Gore Symposium</b>	
14:00-15:30	<b>Plenary 2: Teamwork - Learning from Mistakes</b> <ul style="list-style-type: none"> <li>• Royal Navy</li> <li>• McLaren F1</li> <li>• Civil Aviation Authority</li> </ul>	Mr Paul Gibbs* & Dr Rob Jones* Cmdre Craig Wood Mr Andy Latham Dr Sally Evans
15:30-16:00	<b>Coffee Break - Exhibition</b> ( <i>Chichester Suite</i> )	
16:00-17:00	<b>Mega MDT</b>	Dr Jennifer Hanko* & Dr Kate Steiner*
19:00-23:00	<b>Drinks &amp; Dinner - HMS Warrior 1860</b>	
19:00	• Coaches Depart Portsmouth Marriott Hotel	
20:30	• Dinner Service (Please read venue disclaimer provided)	
23:00	• Coaches Return to Portsmouth Marriott Hotel	

# PROGRAMME - DAY TWO

**FRIDAY 28<sup>TH</sup> SEPTEMBER 2018**

ALL SESSIONS WILL BE HELD IN THE MARIE ROSE SUITE UNLESS OTHERWISE INDICATED

Time	Session & Topic	Chair*/Speaker
08:00-08:30	<b>Industry &amp; VASBI Executive Feedback</b>	
08:30-09:15	<b>Renewal VASBI Membersahip</b> ( <i>Marie Rose Foyer</i> )	
09:15-10:15	<b>Scientific Session 2</b> ( <i>See page 6</i> )	Dr Kate Steiner* & Dr Johann Nicholas*
10:15-11:00	<b>State of the Art Lecture</b> • EndoAVF: Just a Flash in the Pan or the Future of AV Access?	Mr Paul Gibbs* Dr Tobias Steinke
11:00-11:30	<b>Coffee Break - Exhibition - Posters</b> ( <i>Chichester Suite</i> )	
11:30-11:45	<b>Prize Giving</b>	Mr Paul Gibbs*
11:45-12:45	<b>Plenary 3: Paediatric Vascular Access</b> • Nephrologist • IR • Surgeon • Dialysis Access Specialist Nurse	Mr Jeremy Crane* & Dr Scott Oliver* Dr Louise Pittendrigh Dr Sam Stuart Mr Francis Calder Ms Lynsey Stronach
12:45-14:00	<b>Lunch - Exhibition - Industry Symposium - Posters</b>	
13:00-13:30	<b>Merit Medical Symposium</b>	
14:00-15:30	<b>Workshops</b> • Radiology - Fistulograms ( <i>Marie Rose Suite</i> ) • Dialysis Machine ( <i>Chichester Suite</i> ) • Examination & use of AVF/AV Graft	Dr Rob Jones & Dr Kate Steiner Sr Margaret Aitken & Sr Kristine Paule Dr Jennifer Hanco, Ms Ming Yeung Mr & Richard Craven
15:30	<b>Close of Meeting</b>	

# ABSTRACTS - SCIENTIFIC SESSIONS

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## SCIENTIFIC SESSION 1 - THURSDAY 27<sup>TH</sup> SEPTEMBER 2018

Session	Title	Presenter
1	Changing perspective on vascular access choice in elderly population in the intervention era – Observation from a single centre retrospective study.	Sivaramakrishnan Ramanarayanan
2	Endovascular AV Fistula creation – Early UK Experience and Results.	Rob Jones
3	Prospective multi-centre audit of current thrombolysis practice in dysfunctional tunnelled central venous catheters for dialysis access.	Aurang Zaib Khawaja
4	The Capability to Feel 'Normal': Developing a Vascular Access Quality of Life Tool.	Sharon Greenwood Kathryn Larmour
5	Predicting haemodialysis survival for older patients: Important for vascular access planning.	Mohamed ElZawahry
6	Is the need for early fistuloplasty after AV fistula creation associated with poor long-term patency?	

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## SCIENTIFIC SESSION 2 - FRIDAY 28<sup>TH</sup> SEPTEMBER 2018

Session	Title	Presenter
1	The UK Vascular Access Graft Registry – What do 3 years of data collection tell us?	James Gilbert
2	The Use of an Audiovisual Tool to Enhance Professional Learning Experiences and Improve Patient Care.	Claire Whitehill
3	Using the Button-Hole (BH) technique to cannulate PTFE grafts: 46months of experience.	Nick Sangala
4	Surfacer Inside-Out Catheter System: A single-centre case series.	John O'Callaghan
5	Utilizing Arteriovenous Grafts in Maintaining Dialysis Access.	Rowland Storey
6	Phase 3 Trials of Vonapanitase to Promote Fistula Patency and Use for Haemodialysis.	Steve Burke

Full abstracts can be found on pages 16-24



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## GORE LUNCH SYMPOSIUM PROGRAM

GORE SOLUTIONS FOR DYSFUNCTIONAL VASCULAR ACCESS

**SEPTEMBER 27, 2018, 1:15–1:45 PM**

Portsmouth Marriott Hotel, Southampton Road, PO6 4SH

### Speakers

*Mr Nikolaos Karydis*

Consultant Transplant Surgeon  
Guy's and St Thomas' NHS Foundation Trust

*Dr Peter Riley*

Consultant Interventional Radiologist  
University Hospitals Birmingham NHS Foundation Trust

GORE® ACUSEAL Vascular Graft:  
a useful alternative to CVC in rescuing failed vascular access

*Mr Nikolaos Karydis*

Long-term outcomes of stent-graft placement to treat central venous stenosis and  
occlusion in haemodialysis patients with arteriovenous fistulas

*Dr Peter Riley*

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# MERIT MEDICAL SYMPOSIUM

FRIDAY 28TH SEPTEMBER 2018, 13.00-13:30  
PORTSMOUTH MARRIOTT HOTEL, SOUTHAMPTON ROAD, PO6 4SH

## **SPEAKER:**

Mr. James Gilbert  
Consultant Transplant & Vascular Access Surgeon  
Oxford University Hospitals NHS Foundation Trust

## **TITLE:**

The problem of Central Venous Occlusion – Is there a way out?  
The Surfacer<sup>R</sup> Inside-Out<sup>R</sup> Access Catheter System

## **DESCRIPTION:**

Mr Gilbert will discuss the Surfacer System,  
along with the Oxford, and European, initial experiences  
of using this novel, minimally invasive  
approach to restore central venous access.



# FACULTY LISTS

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## VASBI 2018 FACULTY

Mr Paul Gibbs	VASBI President, Consultant Vascular Surgeon
Dr Jennifer Hanko	VASBI Secretary, Consultant Nephrologist
Dr Rob Jones	VASBI Treasurer, Consultant Interventional Radiologist
Mr Hiren Mistry	VASBI Website, Consultant Vascular Surgeon
Mr James Gilbert	Consultant Vascular Surgeon
Mr Jeremy Crane	Consultant Vascular Surgeon
Dr Kate Steiner	Consultant Interventional Radiologist
Mr Max Troxler	Consultant Vascular Surgeon
Dr Johann Nicholas	Consultant Nephrologist
Dr Saeed Ahmed	Consultant Nephrologist
Dr Scott Oliver	Consultant Nephrologist
Dr Emma Aitken	Surgical Registrar
Sr Margaret Aitken	Vascular Access Nurse
Sr Kristine Paule	Clinical Teacher
Mr Nick Palmer	Head of Advocacy of Kidney Care UK
Mr Richard Craven	Clinical Vascular Scientist
Ms Ming Yeung	Vascular Scientist
Sr Karen Tullett	Vascular Access Nurse
Sr Sarah Katterhorn	Vascular Access Nurse
Dr Jonathan Freedman	Consultant Interventional Radiologist

## INVITED FACULTY

Commodore Craig Wood	Commodore, Portsmouth Flotilla
Mr Andy Latham	Senior Engineer, McLaren Formula 1
Dr Sally Evans	Chief Medical Officer, Civil Aviation Authority
Dr Tobias Steinke	Head of Vascular Surgery, Am Heerdter Hospital 2 40549 Dusseldorf, Germany
Dr Sam Stuart	Paediatric Interventional Radiologist, Great Ormond Street Hospital
Dr Louise Pittendrigh	Paediatric Nephrologist, Royal Hospital for Sick Children, Glasgow
Mr Francis Calder	Paediatric Surgery, Guys & St Thomas Hospital
Ms Lynsey Stronach	Paediatric Surgery, Guys & St Thomas Hospital
Mr Gavin Pettigrew	University Reader in Clinical and Experimental Transplantation, Cambridge
Dr Peter Riley	W.L. Gore
Mr Nikolaos Karydis	W.L. Gore
Mr James Gilbert	Merit

# INVITED FACULTY BIOS

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## COMMODORE CRAIG WOOD

Royal Navy Commander, Portsmouth Flotilla

Craig Wood was educated in the Highlands of Scotland and joined the Royal Navy in 1989. Junior warfare officer appointments included the mine countermeasures vessel HMS Quorn as Navigating Officer, the Destroyer HMS Glasgow and as the first Navigating Officer of the frigate HMS Grafton. Second-in-Command of the fishery protection vessel HMS Lindisfarne was followed by Command of the Gibraltar Squadron patrol vessel HMS Trumpeter.



He undertook Principal Warfare Officer training in 2001-2 and was appointed to the frigate HMS Marlborough as the Operations Officer for the Naval Task Group 2003 deployment which included, literally, the opening salvos of the liberation of Iraq.

A short staff tour in Navy Command Headquarters preceded a return to sea as Second-in-Command of the frigate HMS Richmond in 2006. Shortly after joining he was selected for promotion to Commander and further Sea Command. Taking Command of the destroyer HMS Liverpool in 2007 he enjoyed regeneration from refit and a 7 month austral winter deployment to the South Atlantic. He completed Advanced Command and Staff Course in 2010 and was appointed to the UK's Permanent Joint Headquarters (PJHQ) responsible for operational planning within the Broader Middle East.

In 2012 he moved to the Ministry of Defence Central Staff to work within the Finance and Military Capability Directorate before returning to PJHQ on promotion in 2013. This time he was charged with running operations in the Broader Middle East including the UK's contribution to the coalition counter-ISIL effort.

Craig Wood graduated from the Higher Command and Staff Course in April 2016. Command of HMS DRAGON and the position of Captain Destroyers followed. He was promoted to Commodore and took Command of the Portsmouth Flotilla on 12 December 2017.

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## ANDY LATHAM

McLaren Applied Technologies, Chief Engineer

After graduating from Oxford University, Andy joined McLaren Racing specialising in vehicle dynamics and simulation to understand and improve the performance of the Formula 1 car as well as extensively developing their driver-in-the-loop simulator.



This was followed by 10 years trackside racing experience working with drivers such as Kimi Raikkonen, Fernando Alonso and Lewis Hamilton. This culminated in being Lewis Hamilton's head race engineer for 3 competitive seasons. The role included analysing large amounts of historic and practice session data, considering the advice of domain specialists, and utilising that information to make quick decisions that would provide the optimal racing opportunities for Lewis.

# INVITED FACULTY BIOS

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Andy's next role was as race strategy team leader, a team responsible for making all strategic decisions during race weekends such as pit stop timing and tyre selection.

Andy joined McLaren Applied Technologies in February 2015 after 15 years within McLaren Racing. His focus is on applying his extensive experience from within the Formula 1 environment, particularly in the area of data analysis and analytics, to the wide variety of projects within MAT.

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## **SALLY EVANS**

UK CAA Chief Medical Officer

Dr Sally Evans is the Chief Medical Officer and Head of the Medical Department of the UK Civil Aviation Authority (CAA). She is a Consultant in Occupational Medicine specialising in Aviation and Space Medicine. Dr Evans graduated in medicine from The Medical College of St Bartholomew's Hospital, London, UK in 1984. After qualifying as a general practitioner she worked for British Airways and then moved to the UK CAA in 1993 where she gained her Private Pilot's Licence. She was Head of the CAA's Aeromedical Section from 1999 until 2005 when she became Chief Medical Officer.



She is a member of the ICAO Medical Provisions Study Group, an honorary Civilian Consultant Adviser in Aviation Medicine to the Royal Navy, a Fellow of the Royal College of Physicians and the Royal College of Physicians, Edinburgh, a Fellow of the Royal Aeronautical Society, Vice-Chair of the UK Specialty Advisory Committee in Aviation and Space Medicine and Deputy Secretary General of the International Academy of Aviation and Space Medicine. She is Chair of the European Aviation Authorities' Chief Medical Officers' Forum and chaired the EASA FCL.001 Medical Sub-Group that drafted the European Union aviation medical requirements. In 2015 she was a member of the European Aviation Safety Agency's Task Force on measures following the accident of Germanwings Flight 9525.

Dr Evans' main research interests are incapacitation, mortality and cancer risk in aircrew. She has published on incapacitation and cardiovascular risk in commercial pilots, lifestyle and reproductive outcomes for flight crew, medical considerations for spaceplane operations, fitness to fly after chemotherapy and malignant disease in aircrew and colour vision assessment of pilots.

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## **DR. TOBIAS STEINKE**

Chief Physician, Department of Vascular and endovascular Surgery,  
Schoen Klinik, Duesseldorf

Chief physician of the Department of Vascular and endovascular Surgery  
at Schoen Klinik Duesseldorf, Germany since May 2005  
Main focus AV-Access

Outpatient Consultant at the Kaiserberg Klinik/ Vascular Surgery  
Main focus on minimalinvasive Venous Therapy



# INVITED FACULTY BIOS

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Consultant/Certified Specialist in Surgery  
Consultant/Certified Specialist in Vascular Surgery  
Certified Specialist in Endovascular Surgery (DGG)

Member of the German Society for Vascular Surgery (DGG)  
Member of the German Society for Surgery (DGCh)  
Member of the German Society for Angiology (DGA)  
Member of the Association Surgeons of North-Rhine-Westfalia

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## **DR SAM STUART**

Interventional Radiologist, Great Ormond Street Hospital

Sam is an interventional radiologist at Great Ormond Street Hospital with an interest in renal disease and interventions, dinosaurs and football.



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## **DR LOUISE PITTENDRIGH**

Dr Louise Pittendrigh is a final year Specialist Registrar in Paediatric Nephrology at the Royal Hospital for Children, Glasgow. She has an interest in Paediatric Haemodialysis and in particular Home Haemodialysis.

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## **FRANCIS CALDER**

Paediatric Surgery, Guys & St Thomas Hospital

I have been a Consultant surgeon at Guy's, Kings College, Great Ormond St and the Evelina Children's hospitals since 2006, with particular interest in Paediatric renal transplantation, Living Donation and Vascular access in children and adults.

I am a Consultant in Human Factors training for health care sciences at Kings College, University of London.

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The VASBI 2018 Faculty bios can be viewed on the new VASBI website:  
**[www.vasbi.org.uk/meet-the-team](http://www.vasbi.org.uk/meet-the-team)**

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# SONAR TRIAL

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The SONAR trial evaluates the role of early ultrasound surveillance (within the first two months after fistula creation) in improving arteriovenous patency rates. Funded by the award of a NIHR Health Technology Assessment grant, this multicentre trial consists of two phase that will be performed sequentially over a five year period.

The first phase consists of an observational study that aims to validate the use of early ultrasound to predict those nascent arteriovenous fistula that are likely to fail. This phase will recruit 350 patients and will take 15 months to complete. The second phase will commence upon confirmation from the first phase that ultrasound can reliably predict subsequent fistula failure, and will consist of a prospective trial randomising those patient identified with at-risk fistulas to either early salvage intervention or to continued conservative management. This phase will recruit approximately 1200 patients, over a three year period - we think this will represent the largest vascular access trial yet performed.

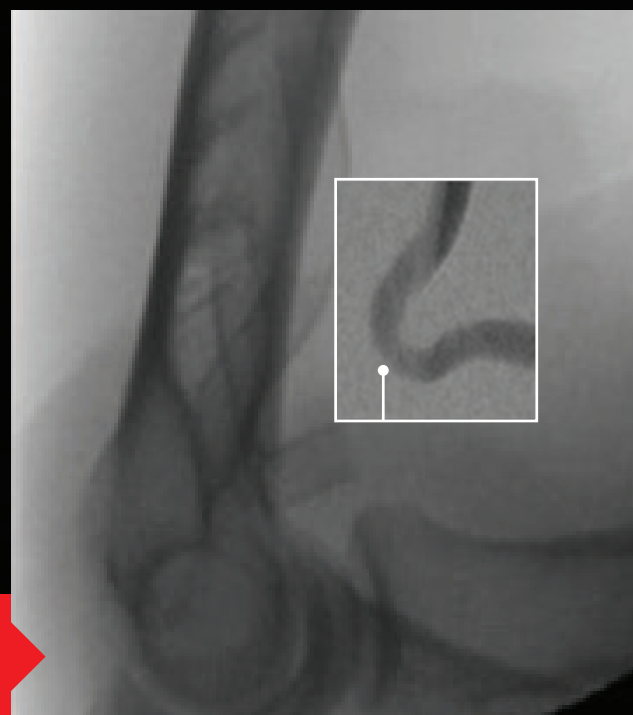
We welcome enquiries regarding participation in either trial.

## CONTACT DETAILS:

Anna Sidders - Trial manager: [anna.sidders@nhsbt.nhs.uk](mailto:anna.sidders@nhsbt.nhs.uk)  
Gavin Pettigrew - Chief Investigator: [gjp25@cam.ac.uk](mailto:gjp25@cam.ac.uk)



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1. W. L. Gore & Associates, Inc. GORE VIABAHN Endoprosthesis Versus Percutaneous Transluminal Angioplasty (PTA) to Revise AV Grafts in Hemodialysis (REVISE). ClinicalTrials.gov. Bethesda, MD: National Library of Medicine; 2014. <http://clinicaltrials.gov/show/NCT00737672>. Published August 15, 2008. Updated October 14, 2014. Accessed April 1, 2015. NLM Identifier: NCT00737672.

Angiogram image courtesy of William DaVanzo, MD.

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# ABSTRACTS

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## OP000074 - CHANGING PERSPECTIVE ON VASCULAR ACCESS CHOICE IN ELDERLY POPULATION IN THE INTERVENTION ERA – OBSERVATION FROM A SINGLE CENTRE RETROSPECTIVE STUDY

**Authors:** Sivaramakrishnan Ramanathan, Kate Steiner, Matt Metcalfe, Michael Guest, Sadasivam Selvakumar, Jeanette cloran, Sivakumar Sridharan, Raja M Kaja Kamal, Emily Harvey, Praveen Jeevaratnam  
Lister Hospital, East and North Hertfordshire NHS trust

**Introduction:** There is controversy surrounding creating AVF in elderly population due to concerns around AVF maturation and survival. To explore this further, we conducted a retrospective study of all the primary AV fistulas created in our centre from January 2014-June 2016.

**Methods:** All primary native AV fistulae fashioned from January 2014 to June 2016 at East and North Hertfordshire trust were included for the analysis. AVF survival were expressed as primary patency (intervention free survival), assisted primary patency (clot free survival) and secondary patency rates (from date of creation to final abandonment) at the end of two years from AVF creation.

**Results:** Two year intervention free survival was significantly worse among patients greater than seventy-five years compared to those lesser than or equal to 75 years (406.1 days versus 509.6 days) ( $P=0.03$ ). However, the cumulative secondary patency rates were not statistically significant across both the age groups ( $p=0.06$ ). The mean number of intervention required per AVF year was not statistically different between the elderly and non-elderly (0.73 and 0.42 respectively;  $p=0.12$ ).

**Discussion:** Based on the above data with limitations of a retrospective study it can be suggested that AVF could be the vascular access of choice in patients more than 75. However, they may require more number of interventions to keep the AVF functional and mature.

**Take home message:** Prospective studies comparing AVF and catheter survival in elderly population and also studying the influence of comorbidities and functional status may be needed to guide the choice of vascular access in this population.

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## OP000073 - ENDOVASCULAR AV FISTULA CREATION – EARLY UK EXPERIENCE AND RESULTS

**Authors:** Rob Jones - IR University Hospital Birmingham

**Category:** Oral

**Aims:** Surgical fistulas have revolutionised the outlook for millions of dialysis patients. They are however fraught with ongoing problems, with 40-50% failing to mature. Fistulas typically require multiple interventions to maintain patency and functionality. This failure may in part be due to manipulation of the vessels during surgical creation leading to intimal hyperplasia and stenosis. In recent years endovascular technology has been developed that allows the percutaneous creation of fistulas and we report our real world experience in using this technology in a large UK centre.

# ABSTRACTS

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**Materials and Methods:** Between November 2016 and April 2018 the EverLinQ endoAVF system has been used to create percutaneous fistulas in 24 patients. The technology involves 2 magnetic catheters, 1 arterial and 1 venous and accompanying radiofrequency energy to create a fistula between the deep ulnar artery and vein in the proximal forearm. Arterialised flow then passes through the deep venous perforator in the proximal forearm to the superficial cephalic and basilic veins, typically with shared flow between these vessels, allowing dialysis at multiple sites.

**Results:** Patient demographics were; Median age of 61.5yrs, 83% Male, 46% diabetic, 50% were pre-dialysis and 33% had previous failed ipsilateral surgical fistulas. Procedural success was 92%. Median follow up was 99days (0-391). Two-needle cannulation was achieved in 80% with median time to cannulation of 83days (41-169). Seven secondary procedures were required (4 coil embolisations of brachial veins, 1 superficialisation and 2 thrombectomies). A single adverse event was encountered involving localised arm pain and swelling that resolved spontaneously within 24 hours.

**Conclusions:** Early experience using the EverLinQ endoAVF catheter system has proven to be both safe and effective with high technical and functional success rates. EndoAVF is the most exciting development in VA access in 50 years but requires further evaluation to determine its long-term future in providing access for dialysis patients.

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## OP000064 - PROSPECTIVE MULTI-CENTRE AUDIT OF CURRENT THROMBOLYSIS PRACTICE IN DYSFUNCTIONAL TUNNELLED CENTRAL VENOUS CATHETERS FOR DIALYSIS ACCESS

**Authors:** Aurang Z Khawaja - Renal transplantation and vascular access University Hospitals Birmingham,  
Nicholas Inston - Renal transplantation and vascular access University Hospitals Birmingham,  
Sandip Mitra - Department of Nephrology Manchester Royal Infirmary,  
Mick Kumwenda - Department of Nephrology Betsi Cadwaladr University Health Board

**Category:** Oral

**Aims:** Synerkinase is used for thrombolysis of occluded tunnelled central venous catheters (TCVCs) for long-term dialysis however its dosage regimens used is without uniform consensus.

**Materials and Methods:** A prospective multi-centre audit of current practice was carried out from September 2017 to February 2018 using a standardised dose regime and algorithm developed by a UK multidisciplinary focus group. Patient and TCVC demographics, dialysis parameters, thrombolytic interventions and adverse events were recorded.

**Results:** 10 centres recruited 215 patients: 54% male, mean age 64(+/-15 SD), BMI 28(+/-7.5 SD), 41% diabetic. 59% TCVCs were placed in right and 20% in left internal jugular vein 9% left and 6.5% right femoral vein. TVCs were predominantly double lumen split tip design. 400 thrombolytic interventions (as first or subsequent) were carried out. Catheter occlusion clearance rate was over 90% with no significant difference between regimens for first intervention. High dose infusion (100-200,000 IU on or pre dialysis) was more efficacious as a second intervention ( $p<0.05$ ). Dwell lock overnight had no added.

**Conclusions:** SynerKINASE was safe and efficacious for restoring and maintaining patency TCVCs although no single regimen showed statistical superiority as a first intervention. An overall trend in achieving higher flow rates was observed with higher locking doses. High dose infusion is the treatment of choice for second interventions.

# ABSTRACTS

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## OP000034 - THE CAPABILITY TO FEEL 'NORMAL': DEVELOPING A VASCULAR ACCESS QUALITY OF LIFE TOOL

**Authors:** Dr. Sharon Greenwood - Sociology University of Glasgow,  
**Category:** Oral

**Aims:** Recent work by Casey et al (2014) has illustrated the impact vascular access (VA) can have on a patients' quality of life (QoL). However, measuring QoL specifically in relation to VA with this medically complex cohort presents barriers not often accounted for in more generalised tools to measure health-related QoL. This paper aims to provide an overview of a study that sought to use patient's experiences of VA and hemodialysis (HD) as a basis of the development a VA-specific QoL measurement tool.

**Materials and Methods:** An interdisciplinary team formed of surgeons, nephrologists, consultants, and a sociologist worked in collaboration to undertake qualitative research. Twenty-five patients, who were receiving HD supervised by the Glasgow Renal and Transplant Unit, were interviewed about their lived experience of VA, and their experience of dialysis more generally. Interview transcripts were thematically analysed, and emergent themes were interpreted using Nussbaum's (2011; 2000) 'capabilities approach' and Bury's (1982) theory of 'biographical disruption'.

**Results:** Patients who reported well-functioning access felt more secure, and felt more satisfied with their life. Most patients did not explicitly recognise the specific impact of VA on QoL, but indirectly associated VA problems with difficulties relating to (a lack of) personal time; general health; the ability to sustain employment; personal relationships; and a sense of personal autonomy. Significant tension was noted between VA-related problems and patients' abilities to fulfil societal expectations of 'normality'.

**Conclusions:** Findings from this study form the basis of a VA-specific QoL tool. Patients recognised the significant impact of HD on their QoL; however, many did not directly associate this with VA. Robust, well-functioning VA had a positive impact on QoL. Nussbaum's 'capabilities approach' provides a useful analytical framework for interpreting QoL – for most patients, it was the capability to do things (or lack thereof) that had an impact. Specific types of VA enhanced patient's sense of feeling capable; for many patients, this helped them to feel included, and in control of their care.

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## OP000031 - PREDICTING HAEMODIALYSIS SURVIVAL FOR OLDER PATIENTS: IMPORTANT FOR VASCULAR ACCESS PLANNING

**Authors:** Kathryn Larmour - Belfast Health and Social Care Trust Regional Nephrology Unit,  
Joan Brown - Belfast Health and Social Care Trust Regional Nephrology Unit,  
Jennifer Hanco - Belfast Health and Social Care Trust Regional Nephrology Unit,  
**Category:** Oral

**Aims:** Prognosis on haemodialysis (HD) should be taken into account when planning vascular access. All patients ≥70 years of age who commenced haemodialysis (HD) were reviewed to assess predictors of survival and to assess vascular access history.

# ABSTRACTS

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**Materials and Methods:** All patients  $\geq 70$  years of age who commenced HD from predialysis clinics between January 2011 and January 2017 were included. Patients who recovered, switched to PD or received a kidney transplant within one year were excluded. Medical records were reviewed. A scoring system was developed with one point for each of the following: diabetes /ischaemic heart disease, concerns regarding functional status, patient reluctance for HD, multidisciplinary team concerns about poor prognosis. For patients who died within one year of commencing HD, data regarding their vascular access history was collected.

**Results:** 105 patients were included. 29 patients died or withdrew from HD  $< 1$  year after HD start and 13 further  $< 2$  years from HD start. Of patients scoring 0-1 ( $n=78$ ), 18% died  $< 1$  year (D1) and 28% died  $< 2$  years (D2) after HD start; patients scoring 2 ( $n=19$ ), 42% D1 and 68% D2; patients scoring 3-4 ( $n=8$ ), 88% D1 and 100% D2. Of those who died within one year, 28% (8/29) required only 1 access procedure; 34% underwent  $\geq 3$  access procedures per patient.

**Conclusions:** A simple scoring system which includes four variables (comorbidities, functional status, patient preference and healthcare professional opinion) may help predict survival on HD for patients aged over 70 years. For patients with a poor prognosis at one year, careful consideration should be given to the option of conservative care. If a patient chooses HD despite a potentially poor prognosis, the goal should be to create one functioning vascular access and not submit the patient to numerous procedures.

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## OP000042 - IS THE NEED FOR EARLY FISTULOPLASTY AFTER AV FISTULA CREATION ASSOCIATED WITH POOR LONG-TERM PATENCY?

**Authors:** Mohamed Elzawahry - Vascular surgery King's college hospitals NHS trust,  
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**Category:** Oral

**Aims:** Vascular access dysfunction/failure is a major issue in haemodialysis patients. Primary failure for AV fistulas ranges from 4-46%. The present study looked to establish if the need for an early fistuloplasty after AV fistula creation is associated with poor long-term patency.

**Materials and Methods:** Medical records of patients who underwent fistuloplasty for the first time between Jan 2016 and Feb 2018 were retrospectively reviewed. Data was collected from Electronic patient records and Renalware.

**Results:** 78 patients were included. mean time from fistula creation to 1st fistuloplasty was 242.5 days. The 1st duplex after fistula creation showed that 3 had occluded. The average vein diameter was 5.9mm and mean flows were 1020.962 ml/min. 38.5% ( $n=30$ ) needed a fistuloplasty before starting dialysis through the AVF after an average of 152.7 days, of which 83.3% ( $n=25$ ) remained patent at 6 months & 53.3% ( $n=16$ ) at 12 months. 61.5% ( $n=48$ ) started dialysis through the AVF but needed a fistuloplasty on an average of 298.5 days after creation. 85.4% ( $n=41$ ) were patent at 6 months & 70.8% ( $n=34$ ) at 12 months.

**Conclusions:** Access surveillance with duplex ultrasound at regular intervals allows pre-emptive balloon angioplasty before AVF failure. Our results showed lower 12 month patency rates of 53% vs 70.8% in AVFs needing a fistuloplasty before starting dialysis. Post procedure duplex surveillance allows identification of AVFs needing a pre-emptive fistuloplasty.

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## OP000075 - THE UK VASCULAR ACCESS GRAFT REGISTRY – WHAT DO 3 YEARS OF DATA COLLECTION TELL US?

**Authors:** Mr James. A Gilbert – Oxford University Hospitals

**Introduction:** The UK National Vascular Access Graft Registry was developed and launched in 2015. Its main purpose was to provide clinicians with a platform in which to collect data relating to the placement of dialysis grafts in order to better understand how they perform over time in a given patient. The registry was also created with the intention of providing the wider dialysis access community with outcome data that could support clinical decision-making regards graft placement in specific patients during their vascular access journey. This paper reports the registry data collected over the last 3 years.

**Methods:** A retrospective analysis was undertaken of all graft cases entered into the registry since its launch. The initial analysis looked specifically at each type of graft used, the anatomical site it was placed and the configuration. 14-day outcomes of patency, infection and death were reviewed. A further analysis was done on all follow up data entered for each graft with particular interest in the end points of infection, patency and death rates.

**Results:** 354 grafts have been placed in 323 patients. The Male to Female ratio was 168:155. Most grafts were placed on the left (228) and the majority of the grafts used were PTFE (341). The Venaflow (99) or Flixene (98) were most commonly used and the commonest placement was an upper arm straight configuration (221). 14/354 grafts (3.9%) become infected within 14 days and 2/14 were removed. There was a 5% thrombosis rate (18/354) in the first 14 days and 9/18 were not salvaged. 2 Patients died in the first 14 days. 676 follow-up events have been recorded for 185 patients. There have been 121 episodes of thrombosis in 60/185 patients with 100 episodes resulting in successful salvage. 13 grafts have been removed for infection and 33 patients have been reported as having died.

**Discussion:** The UK National Vascular Access Graft Registry is the first of its kind internationally and despite a limited number of users has already seen over 350 graft insertions registered. The 14-day infection rate appears to be 3.9% with a secondary patency rate of 97.5%. 58% of patients have follow-up data recorded beyond 14 days with the majority of cases having follow-up beyond one year. 10% of patients have died and in those patients who have follow-up data recorded the secondary patency rate appears to be 88% with an infection rate requiring graft removal of 7%.

# ABSTRACTS

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## OP000024 - The Use of an Audiovisual Tool to Enhance Professional Learning Experiences and Improve Patient Care

**Authors:** Claire Whitehill - Renal Unit Wessex Kidney Centre, QAH, Portsmouth,  
Sarah Kattenhorn - Renal Unit Wessex Kidney Centre, QAH, Portsmouth,  
Jonathan Mackintosh - Library QAH, Portsmouth,  
Paul Gibbs - Renal Unit Wessex Kidney Centre, QAH, Portsmouth,

**Category:** Poster

**Aims:** Arteriovenous fistulas and grafts are the gold standard for vascular access. All health care professionals working with CKD and dialysis patients should be encouraging patients to have AVFs and AVGs above central venous catheters wherever possible. The more interested, informed and engaged health care professionals are, the more they can support their patients when choosing their dialysis access and modality. Answering questions and having access to a variety of teaching tools is essential. However, it is not possible for every health care worker to witness the procedures in person.

**Materials and Methods:** To enhance professional learning and development, a series of 5 minute vascular access films were made that illustrate a patient's potential vascular access journey from vein mapping and the initial surgical consultation to a range of surgical and radiological procedures. The films describe all surgical access and potential corrective procedures that may occur after fistula formation including interventional fistuloplasty, surgical patch plasty and banding. They are voiced over giving a clear and simple description to enhance the learning from the films, which are now available to view.

**Results:** Following introduction of the films in the classroom environment, learners are more engaged as the information is easy to consume. Having the ability to stop the film at any point is invaluable and provides an opportunity to clarify and/or discuss points of reference. The films can be accessed at any time by staff as a learning resource and aid self reflection and useful as coaching and mentoring tool.

**Conclusions:** The films were created firstly for staff and patient education, enabling better staff understanding of vascular access procedures allowing them to better support their patients and enhancing patient engagement with their care. Secondly, it increases staff awareness of what lies beneath the skin with the aim of helping the staff to support the patients to understand and care for their access which is their lifeline. The films are also a great way to inspire new ideas, refine skills and promote different strategies to fellow peers in the wider renal community.

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## OP000043 - USING THE BUTTON-HOLE (BH) TECHNIQUE TO CANNULATE PTFE GRAFTS: 46MONTHS OF EXPERIENCE

**Authors:** Sarah Kattenhorn - Renal Unit Wessex Kidney Centre, Queen Alexandra Hospital,  
Claire Whitehill - Renal Unit Wessex Kidney Centre, Queen Alexandra Hospital,  
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Paul Gibbs - Renal Unit Wessex Kidney Centre, Queen Alexandra Hospital,

**Category:** Oral



# ABSTRACTS

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**Aims:** National guidance recommends the rope ladder (RL) technique for cannulating PTFE grafts. This recommendation is based largely on the perceived increased risk of infection and pseudo aneurysm formation associated with the BH technique despite the absence of published evidence. We have supported the use of BH cannulation of PTFE grafts in a few patients who explicitly requested it since November 2014.

**Materials and Methods:** We reviewed the records of all patients who have used the BH technique to cannulate their PTFE grafts since November 2014. All complications were identified.

**Results:** 17 patients used the technique for an average of 70(5-145) weeks. 6 patients continue to use the technique and have done so for an average of 107(34-145) weeks. 5 patients exclusively used the BH technique on their PTFE grafts for a cumulative 360weeks - average 76(5 – 145) weeks - with 100% primary patency at 1 year and no infective complications. In total, the technique has been used for a cumulative 1162 weeks with 21 interventions, 2 positive blood cultures and 3 superficial infections.

**Conclusions:** Use of the BH technique in PTFE grafts is not recommended by any current guidelines or graft manufacturers. Good quality peer reviewed data are lacking and risks are therefore unquantifiable. Our cumulative experience is favourable, but good prospective ideally, randomized controlled studies are needed to confirm the risk profile and identify any potential benefits. In a select group of our patients, the BH technique appears to be a safe alternative to the RL technique for cannulating PTFE grafts.

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## OP000035 - SURFACER INSIDE-OUT CATHETER SYSTEM: A SINGLE-CENTRE CASE SERIES

**Authors:** John O'Callaghan - Oxford Transplant Centre Oxford University Hospitals,  
Joanna Carter - Oxford Transplant Centre Oxford University Hospitals,  
James Gilbert - Oxford Transplant Centre Oxford University Hospitals,  
**Category:** Oral

**Aims:** Long-term and repeated access to the major upper body veins carries a risk of central venous occlusion. When this occurs there is no effective, low risk procedure to address the problem. The Surfacers Inside-Out Catheter system provides a unique solution: A guide wire is inserted through the femoral vein and navigated to the occlusion. The device is passed over the wire, and establishes a transient passage across the occlusion, from where a needle wire is passed to the marked supraclavicular exit point on the skin.

**Materials and Methods:** We have conducted a prospective data collection and analysis of the first seven central line placements using the Surfacers system in Oxford.

**Results:** Six patients had a total of seven lines inserted by the Surfacers system. All had SVC occlusion. The average time from common femoral vein access to having the jugular wire out, and the peel-away sheath down, was 18.5 minutes (range 10-28 minutes). All cases were completed under general anaesthetic. There were no immediate or peri-procedural complications. One patient accidentally pulled out their line and had to have it replaced a few days later via the same technique.



# ABSTRACTS

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**Conclusions:** The Surfacar Inside-Out Catheter system provides a novel approach to establish central venous access for patients who have occluded. It can be used to place central access lines for haemodialysis, chemotherapy, nutrition, and pacing. The Surfacar system is the only formally marketed device to specifically restore access when central veins are blocked. It is safe, effective, and easy to use.

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## OP000070 - UTILIZING ARTERIOVENOUS GRAFTS IN MAINTAINING DIALYSIS ACCESS

**Authors:** Rowland Storey - Transplant/Vascular Access Hammersmith Hospital,  
**Category:** Oral

**Aims:** The native arteriovenous fistula (AVF) is the preferred modality for haemodialysis access. For those with no viable native option the use of a prosthetic graft may become necessary to maintain arteriovenous (AV) access. We document our experience of utilizing the early cannulation AV graft to maintain AV access in the setting of a failing or thrombosed AVF.

**Materials and Methods:** Patients who underwent surgery to rescue or maintain arteriovenous access utilizing a prosthetic graft were identified through electronic medical record review of patients listed within the trust theatre graft register.

**Results:** Between June 2014 and May 2018, 40 patients underwent surgery where a prosthetic AV graft was used to maintain AV access. Ten patients presented with significant AVF aneurysmal disease, 25 (62%) thrombosed AVF and five (12%) AVF needling segment stenosis. The Gore ACUSEAL® prosthetic AV Graft was utilized in 36 (90%) of patients. Early graft loss occurred in 2 (5%) patients. Successful cannulation occurred in 31 (77.5%) of patients within 48-hours. Assisted primary and secondary patency was 52.5% and 64.7% at 6-months and 40.2% and 58.2% at 12-months respectively

**Conclusions:** The AV graft may be used as a useful adjunct for both maintaining or re-establishing AV access.

**Take-home message:** The arteriovenous graft may be a useful adjunct to maintain vascular access in the setting of a failing or thrombosed AVF. Use of central venous catheters may be avoided and with careful planning further native options preserved.

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## OP000025 - PHASE 3 TRIALS OF VONAPANITASE TO PROMOTE FISTULA PATENCY AND USE FOR HAEMODIALYSIS

**Authors:** Steven Burke - Research and Development Proteon Therapeutics,  
Daniel Gottlieb - Corporate Development Proteon Therapeutics,  
**Category:** Oral

# ABSTRACTS

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**Aims:** Vonapanitase is an investigational recombinant human elastase that is applied once to the external surface of radiocephalic fistulas immediately after surgical creation. In an initial Phase 3 trial (PATENCY-1), vonapanitase did not achieve statistical significance on the primary endpoint, primary patency. However, vonapanitase was associated with increased secondary patency and use of the fistula for haemodialysis (Bleyer 2018 in press). A second actively enrolling phase 3 trial (PATENCY-2) was amended in response to these results. The changes and rationale are summarized and discussed.

**Materials and Methods:** The PATENCY-2 trial was designed originally to be a randomized, double-blind, placebo-controlled trial of 300 patients with the following efficacy endpoints - primary patency (primary endpoint), secondary patency, unassisted maturation by ultrasound criteria, rate of procedures to restore or maintain patency (all secondary endpoints), and unassisted use for haemodialysis (tertiary endpoint). Statistical testing was to follow a hierarchy from primary to tertiary endpoints as listed above. If superiority was not demonstrated for an endpoint all subsequent tests were to be viewed as descriptive.

**Results:** After discussions with regulatory agencies, fistula secondary patency and use for haemodialysis were elevated to primary efficacy endpoints. All other endpoints were demoted to “other” efficacy endpoints. The sample size was increased to 600 to provide 88% and 98% power for secondary patency and use for haemodialysis assuming the PATENCY-1 results. A Hochberg procedure was added. If both endpoints have a p-value  $\leq 0.05$ , both will be considered significant. If one endpoint has a p-value  $> 0.05$ , the other endpoint will be considered significant only if its p-value is  $\leq 0.025$ .

**Conclusions:** Staggering the start of the Phase 3 clinical trials allowed the results of the first trial to inform the endpoints, sample size, and statistical testing of the second trial. This staggered trial approach proved to be efficient from a timeline perspective as compared to sequential trials and increased the chance of success as compared to parallel trials. Top-line results of the PATENCY-2 trial using the new design features are anticipated in March 2019.

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