VASBI

ANNUAL MEETING 2016

DELEGATE HANDBOOK

22ND & 23RD September 2016

The Queens Hotel, Leeds, LS11PJ

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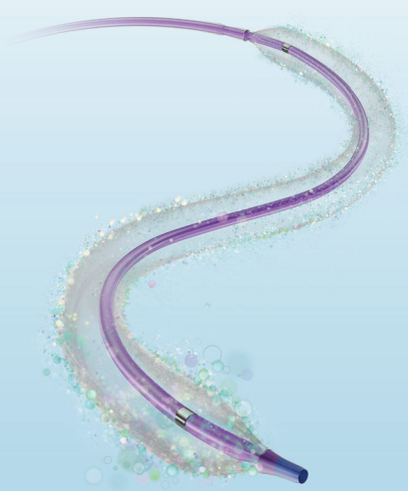

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VASBI 2016 WELCOME

Dear Delegates,

This is our 7th Annual Meeting and hopefully it will have as good a feedback as previous years. At this year's annual meeting we are not having any workshops but are focussing on the scientific programme which includes a session on State of the Art Interventional Radiology Access procedures, invited faculty here includes Dr Kate Steiner talking on her extensive experience and interest in drug-eluting balloon technology and Dr Tom Vesely from St Louis Missouri who is a longstanding supporter of VASBI and international expert in vascular access intervention.

Another session is dedicated to discussing what should we do with aneurysmal fistulas and high flow fistulas with hopefully a conference agreement as to their management by the end of the session. The following day we have a session looking at international trends as well as more locally with Dr Maciej Zielinski, giving as an insight as to the trends in Poland. Dr Alexander, microbiologist from Public Health England, will frighten us with what infections are heading our way. A separate session has been designed for the vascular access nurses focusing on needling and surveillance.

This year has been busy for the society with us expanding our meetings beyond just the annual meeting. In March we ran a successful trainee training day in Birmingham, next year we will be running this again but have expanded this to a two day session, so please encourage your trainees to attend. In April this year Mr Nick Inston and Mr Domenico Valenti, both ex-Presidents of VASBI, organised a three day surgical vascular access course within the Charing Cross Meeting, with a number of council members taking an active role lecturing and teaching during the course. The first day concentrated on vascular access steal and hopefully guidelines with regards the management of this debilitating condition will soon be published, VASBI will also be involved in the course for April 2017. The same week, there was a VASBI Nurses Forum held at the Royal Free, this has led to an agreement to promote a UK wide needling competency frame work. . The graft registry is now in its second year and Mr Gilbert will be giving us some feedback. There has been some suggestion of setting up further registries and we will ask the members as to their thoughts.

VASBI is a multidisciplinary society for everyone involved in access, with representatives, from surgery, nephrology, radiology, access nurses and dialysis nurses, vascular scientists, sonographers and patients. If you are interested in becoming more involved we are always looking for new members on council . After the annual meeting we will be holding elections for new positions on council so please do speak to any of the council members whilst you are at the meeting if you are interested. We have partnerships with organisations in the Americas and Europe (VAS, VASA, CXMeeting, BSIR, Vascular Society and the Renal Association) and we are keen to continue these links.

Welcome to Leeds, enjoy the conference.

Dr. Robert Jones
Consultant Interventional Radiologist. CSL for Radiology.

PROGRAMME - DAY ONE

THURSDAY 22ND SEPTEMBER 2016

MEETING ROOM: PALM COURT
EXHIBITION, REFRESHMENTS & POSTERS: JOHN CHARLES SUITE

TIME	SESSION & TOPIC	CHAIR*/SPEAKER
08.30-09.15	**Registration**	
09.15-09.30	**Welcome**	Dr Sarah Lawman (President of VASBI)
09.30-10.30	**Scientific Session 1** (Please see page 14 for titles and Presenters)	Dr Jennifer Hanko* & Mr Max Troxler*
10.30-11.00	**Coffee Break & Posters**	
11.00-12.30	**Plenary I: Radiology State of the Art** • Haemodialysis Catheters in 2016 • Drug Eluting Balloons in AV access • Stent Grafts in AV Access	Dr Peter Littler* & Mr Nicholas Inston* Dr Tom Vesely Dr Kate Steiner Dr Rob Jones
12.30-13.00	**Lunch**	
12.45-13.15	**Medtronic Lunchtime Symposium** Emerging Therapy in Failing AV Access: Drug-Coated Balloons	Dr Konstantinos Katsanos
13.30-14.15	**Poster Adjudication**	
14.15-15.45	**Plenary II : Aneurysmal & High Flow AVF/AVG** • Surgical Management of Aneurysmal Fistulas • Radiological Management of Aneurysmal access • Cardiac Impact of High Flow AVF: Does it matter?	Mr Max Troxler* & Mr Paul Gibbs* Dr Maciej Zielinski Dr Tom Vesely Dr Joris Rotmans
15.45-16.15	**Coffee Break**	
16.15-17.30	**Mega MDT**	Dr Jennifer Hanko, Dr Peter Littler
19.00	**Welcome to Yorkshire: Drinks and Dinner** The Queens Grill	

PROGRAMME - DAY TWO

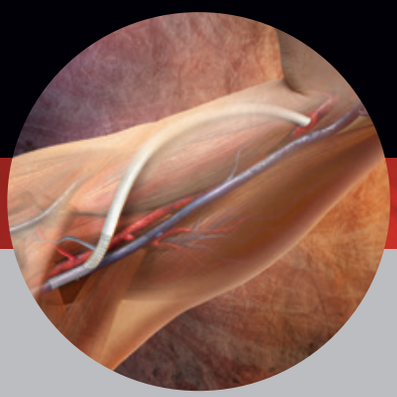
FRIDAY 23RD SEPTEMBER 2016

MEETING ROOM: PALM COURT
EXHIBITION, REFRESHMENTS & POSTERS: JOHN CHARLES SUITE

TIME	SESSION & TOPIC	CHAIR*/SPEAKER
08.30-09.30	**Renewal of VASBI Membership**	
09.30-10.30	**Scientific Session 2** (Please see page 17 for titles and Presenters)	Dr Tom Vesely* & Mr James Gilbert*
10.30-11.00	**Coffee & Posters**	
11.00-12.30	**Plenary III: Registries & International Practice** • Update on UK Access Data • Vascular Access Practice in Poland • Update on UK Graft Registry • Infection: What's round the corner	Mr Paul Gibbs* & Dr Johann Nicholas* Dr Sarah Lawman Dr Maciej Zielinski Mr James Gilbert Dr Eliza Alexander
12.30-14.00	**Lunch**	
13.00-13.30	**WL Gore Lunchtime Symposium** GORE® Hybrid Vascular Graft for challenging patients: • Expanding treatment options in AV Access • My experience with the GORE® Hybrid Vascular Graft for AV Access Creation	 Mr Domenico Vaemti Mr Hiren Mistry
13.30-14.00	**Poster Adjudication**	
14.00-15.15	**Plenary IV: Current Trials In Vascular access** 1. Radiology: Kate Steiner (PAVE), Rob Jones (DEVA), Rob Jones (TVA). 2. Surgical: Mel Field (GTN), Marc Clancy (Blocks vs LA), Paul Gibbs (VasQ), Nick Inston (Humanity), James Gilbert (FIR), Neil Parrott (Espirit Graft), Paul Gibb (Proteon), Paul Gibb (Liposomal Prednisolone). 3. Nephrology	Dr Tom Vesely*, Mr Nicholas Inston* & Dr Sarah Lawman*
14.00 -15.15	**Vascular Access Nurse Session:** Access Surveillance – What is Best ? (Room: Headingley Suite)	Ms Kristine Paule
15.15-15.30	**Prize-giving and Close of Meeting**	

CPD UNDER APPLICATION

Gore Lunch Symposium
VASBI Congress



September 23, 2016
1:00 to 1:30 pm

Venue
The Queens Hotel City Square,
Leeds, LS1 1PJ

MODERATOR:

Domenico Valenti, London

SPEAKER:

Domenico Valenti, London

Hiren Mistry, London

GORE® Hybrid Vascular Graft for challenging patients: Expanding treatment options in AV Access
Domenico Valenti

My experience with the GORE® Hybrid Vascular Graft for AV Access creation
Hiren Mistry

W. L. Gore y Asociados, S.L
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FACULTY LISTS

VASBI 2016 FACULTY

Dr Sarah Lawman	Consultant Nephrologist, Royal Sussex County Hospital, Brighton
Mr Nick Inston	Consultant Renal Surgery, Queen Elizabeth Hospital, Birmingham
Mr Max Troxler	Consultant Vascular Surgeon, Leeds Vascular Institute, Leeds
Dr Rob Jones	Consultant Interventional Radiologist, Queen Elizabeth Hosptal, Birmingham
Dr Jennifer Hanko	Consultant Nephrologist, Belfast City Hospital, Belfast
Mr Paul Gibbs	Consultant Vascular Surgeon, Queen Alexandra Hospital, Portsmouth
Mr James Gilbert	Consultant Vascular Surgeon, Oxford University Hospitals, Oxford
Dr Johann Nicholas	Consultant Nephrologist, Royal Wolverhampton Hospital, Wolverhampton
Dr Jason Wilkins	Consultant Interventional Radiologist, Kings College Hospital NHS Foundation Trust
Ms Kristine Paule	Royal Free London NHS Foundation Trust

INVITED FACULTY:

Dr Tom Vesely	St Louis, Missouri, USA
Dr Maciej Zielinski	Poznan University of Medical Sciences, Poland
Dr Eliza Alexander	Public Health England
Dr Kate Steiner	East & North Hertfordshire NHS Trust
Dr Joris Rotmans	Leiden University Medical Center
Mr Marc Clancy	Consultant Transplant Surgeon, Queen Elizabeth University Hospital Glasgow
Mr Domenico Valenti	Consultant Vascular Surgeon, Kings College Hospital NHS Foundation Trust
Mr Hiren Mistry	Consultant Vascular Surgeon, Kings College Hospital NHS Foundation Trust
Dr Kostas Katsanos	Guys & St Thomas' Hospital

FACULTY BIOS

DR ELIZA ALEXANDER

After finishing my training in paediatric infectious disease and immunology, decided I hadn't sat enough exams and re- trained in microbiology. I worked in Brighton and Sussex University Hospitals, leading the hospital antibiotic stewardship group and driving down the use of broadspectrum antibiotics. I now work for Public Health, as clinical lead for the National mycobacterial reference laboratory and as a microbiologist for North Central London.

I enjoy reading, which I do plenty of on my commute, if I can find a seat. I also play tennis with my 9 year old son and as yet still win. I will be doing my first open water swim as part of the Brighton Triathlon in Septmber. Not sure if that will become a hobby.

KRISTINE PAULE

Based in Royal Free Hospital, London, Kristine Paule is a senior clinical nurse specialist in renal dialysis access. Worked in Renal since qualifying as a registered nurse in 2008, her passion and work dedication focused in haemodialysis. She became an access nurse specialist in 2011 and had the opportunity to train as a surgical care practitioner in renal access with vascular and transplant surgeons. She gained vast surgical experience in pre-operative care, intra-operative care, surgeon's first assistant, autonomous follow-up clinics and providing training and education to junior colleagues.

As current VASBI Nurse Network lead her goal is to work closely with other dialysis access specialists members and to launch national projects alongside with BRS SIG Group that focuses in haemodialysis access.

FACULTY BIOS

DR JORIS ROTMANS

Dr. Joris Rotmans is an internist-nephrologist and associate professor at the Department of Nephrology of the Leiden University Medical Center (LUMC) in the Netherlands. He obtained his master's degree in Medicine (cum laude) at the Free University in Amsterdam. He received his PhD in 2005 at University of Amsterdam on new therapeutic strategies for vascular access for hemodialysis whereupon he started his residency in Internal Medicine. In 2008-2009, he did postdoctoral research on vascular tissue engineering at the Australian Institute of Bioengineering and Nanotechnology in Brisbane, Australia.

Since 2010, he combines clinical work as internist-nephrologist with vascular and renal research at the Department of Nephrology of the LUMC. His main focus of research is vascular access for hemodialysis. He was the principle investigator of the DialysisXS consortium in which a novel method to generate in vivo engineered blood vessels was developed. Furthermore, he was the chairman of the organizing committee of the First International Symposium on Vascular Tissue Engineering that was held in 2013. He received the first prize at the Investors forum of the Dutch LifeScience Conference in 2013. In 2014, he received a prestigious VIDI grant from NWO that allows him to expand his research group and to continue his research on vascular tissue engineering. He is the principle investigator of the LIPMAT-trial: a multicenter RCT on the efficacy of liposomal prednisolone to enhance AVF maturation in hemodialysis patients.

DR KATE STEINER

Dr Kate Steiner works as a consultant interventional radiologist at the Lister Hospital East and North Herts NHST in the U.K. She has a subspecialty interest in vascular intervention and vascular imaging. In particular duplex U/S in AV Access dysfunction and peripheral arterial disease.

She trained at the Royal Free Hospital London where she completed her fellowship in interventional radiology.

DR THOMAS M. VESELY

Thomas M. Vesely, MD is an interventional radiologist with 30 years of experience performing percutaneous procedures. During the past 20 years he has focused his clinical practice and research on the management of hemodialysis vascular access including prosthetic grafts, autogenous fistulas, and central venous catheters.

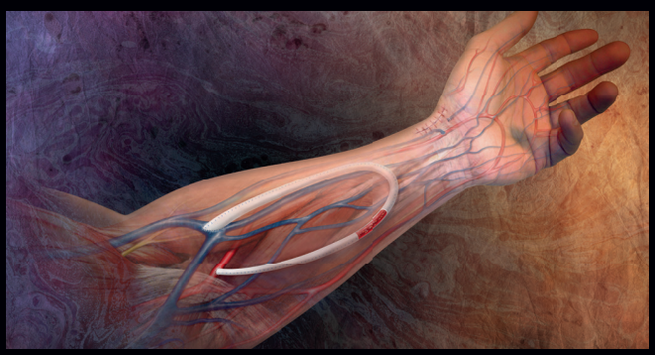
Dr. Vesely is Past-President of the Vascular Access Society of the Americas (VASA) and he has authored 75+ publications in the medical literature.

DR MACIEJ ZIELIŃSKI

Maciej Zieliński MD, PhD graduated from the Poznan University of Medical Sciences in Poland in 1997. During his study he was granted a scholarship and took part in the European Union medical staff training in Ireland in 1995. In 1997 after finishing his internship, dr Zielinski started his carrier as assistant physician in The Department of General and Vascular Surgery of Poznan University of Medical Sciences. At the same time he started his 1st degree specialization in General Surgery (finished in 2000) and Ph.D. Program. In 2001 and 2002 dr Zielinski got a 2-year research fellowship in the USA. He took an Advanced Microsurgery Course and worked as a research fellow in Cleveland Clinic Foundation, Department of Plastic Surgery. He was a member of prof. Maria Siemionow scientific team working on composite tissue allogenic transplants, diabetic neuropathy, peripheral nerves regeneration and microcirculation.

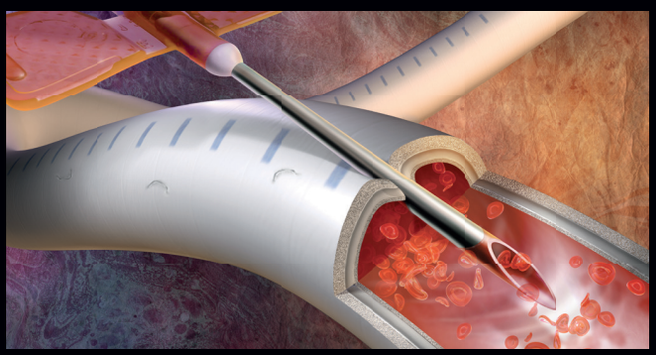
The fellowship in the USA resulted in PhD thesis on Ad-VEGF gen mediated therapy in neuropathy prevention and nerve regeneration in diabetes, 12 papers published in American journals and 18 studies presented during the congresses of American and international medical societies. After returning to Poland in 2003 dr Zielinski finished his Ph. D Program and continued working in The Department of General and Vascular Surgery of Poznan University of Medical Sciences. He introduced in Poland the Vac Therapy as a method of chronic and complicated wounds treatment which he learned in the USA. He was also a pioneer in the microsurgical decompression of peripheral nerves in the diabetic foot prevention proposed by prof. Dellon from Baltimore USA.

In 2005 Dr Zielinski finished his 2nd degree specialization in General Surgery and in 2010 he accomplished his vascular surgery specialization. Currently working as an assistant professor delivering lectures to students, residents and specialists of general and vascular surgery. As a faculty member, fully qualified vascular surgeon, performs the whole spectrum of vascular and endovascular procedures. His general professional interests are: peripheral vascular diseases, abdominal aortic aneurysms, venous diseases, diabetic foot, accesses for hemodialysis, microsurgery and wound management. He is an active member of many medical societies presenting studies in meetings and congresses and publishing papers in medical journals. He is a member and coordinator of several international medical trial teams.



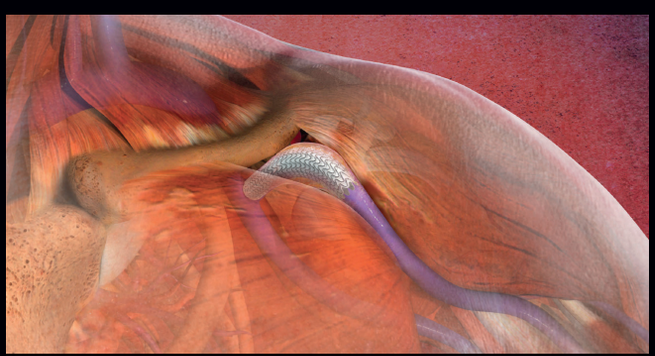
Powerful Patency

GORE PROPATEN VASCULAR GRAFT



Early Cannulation

GORE ACUSEAL VASCULAR GRAFT



Uninterrupted Dialysis

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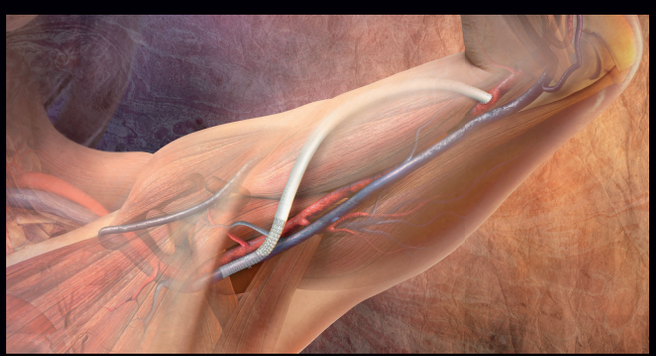

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ABSTRACTS - SCIENTIFIC SESSIONS

SCIENTIFIC SESSION 1 - THURSDAY 22ND SEPTEMBER 2016

Session	Title	Presenter
9	Ultrasound Imaging Velocimetry as a potential tool for in-vivo validation of numerical simulations of a patient-specific Arterio-Venous Fistula.	S. Drost
11	Juxta-anastomotic Stenoses in Native Arteriovenous fistulas: Duplex U/S Appearances.	K. Steiner
12	Duplex Ultrasound Parameters for a Functional AVF: Volume flow Measurements and Peri-anastomotic Diameter.	K. Steiner
24	Fluoroscopy guided placement of tunnelled haemodialysis catheters: report of a single institutional experience.	E. Hannon
27	High Flow Fistulae: At what point does fistula flow result in pathology?	N. Sangala
30	Ultrasound monitoring of brachial artery flow rates to guide arteriovenous fistula banding.	K. Larmour

SCIENTIFIC SESSION 2 - FRIDAY 23RD SEPTEMBER 2016

Session	Title	Presenter
1	United Kingdom experience of Haemodialysis Reliable Outflow (HeRO) graft use in vascular access.	J. Hunter
5	The Adductor Loop Arteriovenous Graft – 10 year follow up.	S. Body
6	AVF outcomes in Octogenarians are comparable to patients aged 50-60: A retrospective observational study.	N. Sangala
15	Buttonhole PTFE 18 Months On.	S. Kattenhorn
22	Initial Experience of Spiral Flow Graft for Arteriovenous fistula.	S. Body
23	Save Your Vein - A Health awareness campaign for renal patients and healthcare staff.	C. Hall

ABSTRACT 9

Title: Ultrasound Imaging Velocimetry as a potential tool for in-vivo validation of numerical simulations of a patient-specific Arterio-Venous Fistula.

Authors: S. Drost, M. Walsh, L. D. Browne, N. Aristokleous, J. G. Houston, D. Newport
Institution/Affiliations: University of Limerick, University of Dundee/Ninewells Hospital and Medical School

Introduction: Wall shear stress is generally believed to play an important role in vascular access failure. Computational models are used to elucidate its influence on phenomena like intimal hyperplasia and vascular remodelling. We investigate the feasibility of using Ultrasound Imaging Velocimetry (UIV) for in-vivo validation of such computational models. Computational Fluid Dynamics (CFD) simulations allow for the detailed study of hemodynamics in complex, patient-specific geometries, with the attractive possibility of studying the influence of variations in e.g. geometry on important quantities like wall shear stress.

Methods: Before CFD results can be used in clinical practice, validation is required. We aim for a multi-step validation process, where first the model is verified using Particle Image Velocimetry (PIV) in a well controllable and reproducible in-vitro experiment. As the requirement of optical access for PIV prohibits its use in-vivo, we propose the use of its ultrasound-based counterpart, UIV, for the ultimate in-vivo validation of the modelling assumptions. Because UIV is a relatively new technique, not yet as well established as PIV, as an intermediate step its performance is compared with that of PIV in the same in-vitro set-up. A rigid, patient-specific model of an arterio-venous fistula (AVF) is used, supplied with a flow waveform measured in the same patient.

Results: First results look promising, and a series of further experiments is planned for more rigorous testing.

Take-home message: Having a tool for rigorous in-vivo validation of hemodynamics simulations would be a further step forward in the understanding, predicting, and eventually preventing of vascular access failure.

ABSTRACT 11

Title: Juxta-anastomotic Stenoses in Native Arteriovenous fistulas: Duplex U/S Appearances.

Authors: C von Stempel, J Cloran, S Selvakumar, P Jeeveratnam, M. Metcalfe, K Steiner I
nstitution/Affiliations: The Lister Hospital, East and North Hertfordshire NHS trust

Introduction: Doppler Ultrasound (DUS) has a high sensitivity and specificity in the diagnosis of venous stenosis in native arteriovenous fistulas (AVFs). In experienced hands DUS can detect >90% of significant stenoses. Juxta-anastomotic stenoses are a recognized cause of failure of maturation and fistula thrombosis.

Methods: 150 Consecutive DUS examinations were retrospectively reviewed over a 6-month period. At the time of the examination vein diameter was measured and where seen, neointimal thickness at the site of a juxta-anastomotic stenosis (JAS). Luminal diameter was calculated. (Vein diameter – intimal thickness)

Results: There were a total of 36 JAS. Mean intimal thickness was 0.77mm (0-2.8mm). Mean vein diameter was 3.28mm (1.7-5.3mm). Mean luminal diameter was 2.5mm (0.7-4.6mm). On review of the data and imaging 3 types of stenosis were identified: 1. Stenoses secondary to venous constriction 2. Stenoses secondary to neo-intimal thickening 3. Stenoses secondary to a combination of both.

Discussion: JAS are not a uniform group. This may have implications for treatment strategies including percutaneous transluminal angioplasty, drug elution and surgery.

Take-home message: DUS can identify both the severity and type of juxta-anastomotic stenosis.
JAS are not a uniform group and this may have implications for treatment strategies

ABSTRACT 12

Title: Duplex Ultrasound Parameters for a Functional AVF: Volume flow Measurements and Peri-anastomotic Diameter
Authors: C von Stempel, J Cloran, M Guest, P Jeeveratnam, M. Metcalfe, K Steiner
Institution/Affiliations: The Lister Hospital, East and North Hertfordshire NHS trust

Introduction: A volume flow (VF) in the brachial artery of less than 500 mL/ min is associated with a significant relative risk of AVF failure, and may indicate a peri-anastomotic stenosis. The Doppler U/S parameters for a functional fistula based on VF measurements and peri-anastomotic diameter have not been defined.

Methods: 84 AVFs were examined. VF (mL/min) measured at the brachial artery. Luminal diameter was measured within the peri-anastomotic vein (PAV). Recirculation values, dialysis times, clinical observations and problem reports were recorded.

Results: Group 1 – 57 AVFs: 28 Brachial ; 29 Radiocephalic Good dialysis function, (no problem reports + full length dialysis + <10% recirculation + no falling access flows) no stenosis. Group 2 – 27 AVF: 14 Brachial; 13 Radiocephalic Poor/ deteriorating dialysis function, (dialysis curtailment ± falling access flows ± >10% recirculation) ± a significant stenosis. Group 1: Mean VF = 1482 mL/min; Mean PAV diameter = 4.25mm Group 2: Mean VF = 919 mL/min; Mean PAV diameter = 3.74mm Statistically significant difference ($P<0.05$). ROC threshold value for normal functioning AVF = >1039 mL/min. A PAV luminal diameter of ≥3.5mm correlates with VF >1039 mL/min.

Discussion: VF >1039 mL/min and a PAV diameter of ≥3.5mm can be used to define a functioning AVF in this cohort.

Take home message: Where there is a VF > 1000 mL/min and a PAV diameter of ≥3.5mm this indicates a functioning fistula. These parameters could be used in clinic to exclude a significant in-flow stenosis.

ABSTRACT 24

Title: Fluoroscopy guided placement of tunnelled haemodialysis catheters: report of a single institutional experience.
Authors: Hannon E[1] O'Hagan N[2], McGregor J[2], McSorley D[2], Campbell D[2], Mzimba Z[3], Shivashankar G[1]
Institution/Affiliations: Altnagelvin Hospital, Western Trust, Northern Ireland. Author information: [1]Renal Unit, Altnagelvin Hospital; [2]Interventional Radiology Department, Altnagelvin Hospital; [3]Vascular Surgery, Altnagelvin Hospital

Introduction: Tunnelled catheters at our institution are placed by a Nephrologist using real-time ultrasound-guided puncture and fluoroscopy guidance. We examine our success and immediate complication rates and reflect on near miss events which may have gone undetected without fluoroscopic imaging.

Method: A retrospective analysis was undertaken of Nephrology placed tunnelled catheters in Altnagelvin from January 2013 to present. Data was obtained from our Radiology database and Emed system.

Results: 138 procedures were carried out in 118 patients. Preferred access choice was right internal jugular catheter (IJC) placement (91.3%). Seven left IJC and five femoral catheters were placed. Success rate was 97.8%. Three were unsuccessful due to vessel patency – two vessel stenoses and one clotted vessel identified fluoroscopically after contrast insertion. One immediate complication occurred during insertion of a left IJC with the catheter tip exiting the brachiocephalic vein entering the mediastinum. No surgical intervention required. Three near miss events were identified through fluoroscopic technique including: 1) Curled and kinked guide-wire due to stenosis; 2) Identification of split-sheath catheter outside vessel lumen; 3) Ante-grade flexion of the guide-wire.

Discussion: Fluoroscopic guidance enables early detection of guide-wire mishaps enabling corrective action. Vessel damage can be a fatal complication of this procedure. The radiological image demonstrating our one identified complication emphasises just this, with the catheter tip abutting the descending aorta. Fluoroscopy guidance is not universal practice amongst Nephrologists and with our experience we wish to highlight the success rate and safety benefits of this approach.

Take home message: Fluoroscopy guided tunnelled line insertion is successful and may enhance safety.

ABSTRACT 27

Title: High Flow Fistulae: At what point does fistula flow result in pathology?
Authors: N Sangala, S Kattenhorn, C Whitehill and P Gibbs.
Institution/Affiliations: Vascular Access Development Audit & Research (VADAR) group, Wessex Kidney Centre.

Introduction: The definition of high flow fistulae is unclear. Access flow rates between 600-1200ml/min are targeted whilst those in excess of 2L/min are associated with high output cardiac failure. Understanding the risk associated with high fistula flow rates will help guide the decision to intervene.

Methods: We identified all patients who had fistula flows recorded between January 2011 and April 2016 at the Wessex Kidney Centre. Patients who underwent fistula ligation or banding due to symptomatic complications were identified.

Results: 925 patients had at least one fistula flow recorded during the study period (average flow 1417ml/min). There were 120 symptomatic interventions (ligations or bandings), of which 57 had fistula flow rates recorded prior to surgery. 39/744 patients with flows <2000ml/min underwent surgery for symptomatic complications compared with 18/181 with flows >2000m/min (p=0.024). Reasons for surgery included aneurysmal fistulae (n= 11, average flow 2227ml/min), steal syndrome (n=32, average flow 1610ml/min), arm swelling (n=3, average flow 2493ml/min), cardiac failure (n=6, average flow 1900ml/min), other reasons (n=5, average flow 356ml/ min). 3 patients underwent banding for asymptomatic high flows (average flow 2673m/min).
Discussion: Patients with fistula flows in excess of 2000ml/min are at increased risk of symptomatic complications. Of 163 asymptomatic patients with flows >2000ml/min only 3 underwent elective banding to reduce flows. The benefit of intervening in asymptomatic patients is unclear.

Take-home message: Fistula flows >2000ml/min are associated with increased symptomatic complications. Further work is needed to establish whether early intervention on asymptomatic patients will prevent future complications.

ABSTRACT 30

Title: Ultrasound monitoring of brachial artery flow rates to guide arteriovenous fistula banding
Authors: K Larmour, J Wishart, T Brown, J McDaid, J Hanko
Institution/Affiliations: Regional Nephrology Unit, Belfast City Hospital

Introduction: Banding of an arteriovenous fistula (AVF) is one method used to manage steal syndrome related to an AVF. This is commonly done by clinical assessment of peripheral pulses and AVF thrill during the procedure. From 2012 we introduced the option of intra-operative ultrasound (US) assessment to guide the degree of banding; AVF banding procedures at our centre were reviewed.

Methods: All patients who had an AVF banding procedure recorded on the regional renal database (eMed) from April 2012 were included. The data collected included: primary renal disease, vascular access history, where available intra-operative pre and post-bandng brachial artery flows and any follow-up ultrasound measurements.

Results: 23 patients had banding procedures (3 patients required 2 procedures). Intra-operative US monitoring was performed and results recorded in 17 cases. Average AVF flow pre-procedure was 2686ml/min (range 1450-5316ml/min). Flow was reduced by an average of 53% (average reduction of 1471ml/min, range 500-3566ml/min). Six patients had follow-up assessment; the majority (5/6) had ongoing overall reduction in flow recorded at review, with an average of 29% flow reduction compared to pre-banding. Currently 10 patients continue to use their AVF, 5 have been transplanted, 5 patients' AVF failed or was ligated, 1 patient remains pre-dialysis and 2 are deceased.

Discussion: Intra-operative US assessment of brachial artery flow has been used to successfully guide AVF banding at our centre. It was not possible to compare the outcomes of banding procedures carried out with or without intra-operative US assessment due to the small number of included patients.

Take home message: Intra-operative US assessment of brachial artery flow can be used to guide the degree of AVF banding with a low rate of subsequent thrombosis and maintenance of flow reduction on subsequent follow-up.

ABSTRACT 1

Title: United Kingdom experience of Haemodialysis Reliable Outflow (HeRO) graft use in vascular access.
Authors: J Hunter, N Inston, A Tavakoli, D Ridgway, S Suttie, S Sultan, T Brown, J Hanko, D Kingsmore & J Gilbert

Introduction: Patients with central venous stenosis requiring vascular access are a challenge. The Heamodialysis Reliable Outflow (HeRO) graft provides a conduit passing through central venous pathology with dependable outflow whilst preserving native arterial inflow. We describe the UK HeRO series to date.

Methods: Data were collected retrospectively from eight of nine UK centres to have performed a HeRO graft insertion between July 2013 and May 2016. Demographics, primary and secondary patency rates and complications were analysed.

Results: 47 patients underwent HeRO graft insertion. Median age was 52 ± 15, 20 (43%) were male and 27 (57%) were Asian. Median follow up was 308 (10-966) days and patient survival was 35/47 (74%). 44 procedures were in the upper limb using the brachial artery as inflow (74%) and the IJV or SCV as access for outflow insertion (61%). Six and twelve month primary patency rates were 52% and 46% and secondary patency rates were 92% and 86% respectively. There were 75 surgical interventions and 41 radiological interventions. 2.25 interventions per year were required to retain patency. Complications included 4 infections and 2 episodes of steal syndrome.

Discussion: The UK HeRO series provides primary and secondary patency rates that are comparable with US HeRO data without additional complications. In order to retain patency HeRo grafts require relatively high intervention rates.

Take Home Message: HeRo graft provides favourable 12-month primary and secondary patency rates and acceptable complication rates in a UK multicentre series. HeRO should be considered in complex access patients with central pathology.

ABSTRACT 5

Title: The Adductor Loop Arteriovenous Graft – 10 year follow up
Authors: McEwan S, Body S, Gibbs P
Institution/Affiliations: Vascular Access, Development, Audit and Research (VADAR) Group, Wessex Kidney Centre, Queen Alexandra Hospital, Portsmouth

Introduction: Our unit has been using a modified adductor loop arteriovenous graft as an alternative for definitive access in haemodialysis patients for over 10 years. This approach uses the mid-thigh sub-sartorial SFA and SFV and PTFE graft to create a loop. Our initial primary and secondary patency rates were high at 70% and 90% respectively at 1 year. (1) This study aimed to look at long-term outcomes.

Method: A prospective database of all adductor loop patients was collated with data on primary and secondary patency rates and complications.

Results: In 10 years, 44 adductor loops have been inserted in 43 patients. 30/44 adductor loops were in the right limb. The primary and secondary patency rates of 35 loops monitored at 1 year were 83% and 97% respectively, of 27 loops monitored at 2 years were 68% and 80% respectively and at 5 years 13 were being monitored with rates of 54% and 69% respectively. One patient was lost to follow up, 5 patients underwent a renal transplant. Maximum infection rates were 6/44 (14%) loops, although only 2 had positive cultures. 3 grafts were removed for infection and one had a jump graft around an area of ulceration. All had been used for >6 months. The remaining two remained in situ. Only one patient to date has required a second loop and this was placed in the same leg.

Discussion: This adductor loop technique continues to illustrate high patency rates and low infection rates at 10 year follow up and preserves the groin vessels for further vascular access surgery if required.

(1) Gilbert JA, Gibbs PJ. Good Long Term Patency Rates Associated with an Alternative Technique in Vascular Access Surgery – The Adductor Loop Arteriovenous graft. Eur J Vasc Endovasc Surg (2001) 41, 566-569

ABSTRACT 6

Title: AVF outcomes in Octogenarians are comparable to patients aged 50-60: A retrospective observational study.
Authors: H Edwards, S Kattenhorn, C Whitehall, P Gibbs & N Sangala
Institution/Affiliations: Vascular Access Development Audit & Research (VADAR) group, Wessex Kidney Centre

Introduction: Patients reaching end stage renal failure are increasingly elderly and more comorbid. Vascular access in these patients can be more complex & more data is needed to establish whether AVF remains the access of choice.

Methods: We identified all patients who had a fistula created between January 2011 & December 2015 at the Wessex Kidney Centre. We compared access outcomes of patients aged 80 and above at the time of surgery to those of a control group aged 50-60. Demographic data, comorbidities, type and site of access, and the use of anticoagulation were recorded.

Results: 91 patients aged 80 and older had fistulae created during the study period compared to 190 patients in the control group. Average follow up time was 155 weeks. Primary failure rate (6.8% vs 8.8%), 12 month primary patency rate (60.1 vs 68.1%) and primary patency duration (58 vs 52.1 weeks) were similar in both groups. 70% of the elderly group did not have any intervention during the study period compared to 57.4% of the control group (p=0.049). None of elderly group had their fistula banded or ligated for cardiac reasons or steal compared to 13 in the control group (p=0.011).

Discussion: This study, whilst retrospective and observational, has the benefit of a large sample size. It suggests that being aged 80 or over is not a barrier to AVF formation.

Take-home message: Fistulas in the elderly population are an effective form of vascular access with similar outcomes to younger patients.

ABSTRACT 15

Title: Buttonhole PTFE 18 Months On
Authors: Sarah Kattenhorn, Claire Whitehill & Paul Gibbs
Institution/Affiliations: Vascular Access Audit Development & Research (VADAR) group, Wessex Kidney Centre.

Introduction: Last year, the Wessex Kidney Centre presented its initial experience with buttonholing PTFE grafts. We now present outcome data of the first 10 grafts.

Methods: Risks and potential benefits were highlighted to the patients. Patients formed their own tracks under supervision. Surveillance was monthly Transonic. Two patients were in centre, 8 at home using the NXStage machine. All grafts were Venaflo.

Results: Eight of the 10 grafts are still in use and all 8 continue to use buttonholes. Median time of buttonhole use 8 months (range 1 to 23 months). One leg loop was removed as a result of a surgical site infection unrelated to any buttonholes. One patient died (unrelated) 10 months after starting using buttonholes. Five of the grafts have only ever been buttonholed. Of these, only 1 intervention (fistuloplasty of in-graft stenosis) has been required, unrelated to a buttonhole site. This was performed at 19 months. The other five were grafts were between 2 and 6 years old prior to the development of buttonholes. They had been rope laddered.

Discussion: With almost 7 patient years (82 months) of buttonholing PTFE, we have had no infective complications. In the PTFE's that have had buttonholes from the start there appears to be a lower intervention rate.

Take-home message: Early experience with buttonholing PTFE grafts appears safe and can be performed with low infective complication rates in both new and established grafts.
The buttonhole method may prolong the life of the PTFE grafts.

ABSTRACT 22

Title: Initial Experience of Spiral Flow Graft for Arteriovenous fistula

Authors: Body S, McEwan S, Gibbs P

Institution/Affiliations: Vascular Access, Development, Audit and Research (VADAR) Group, Wessex Kidney Centre, Queen Alexandra Hospital, Portsmouth

Introduction: The use arteriovenous graft is becoming increasingly common, especially once all autologous options have been exhausted, as this is the only option for continued haemodialysis other than central venous catheters. Spiral Flow AV graft is a novel PTFE conduit designed to promote a natural spiral pattern of blood flow that is claimed to reduce the risk of neointimal hyperplasia that can arise from unnatural turbulence in blood flow. There is limited literature of the clinical effectiveness of Spiral Flow grafts.

Methods: Since June 2014 a series of 7 Spiral Flow grafts have been implanted in Portsmouth in 7 patients. These patients were prospectively identified and patency and complications recorded over the initial year after insertion.

Results: Of the 7 patients who underwent a Spiral Flow Graft, 3 were implanted in the upper arm, 1 in the forearm and 3 were adductor loops grafts. Initial patency was 100%, death censored secondary patency at 6 and 12 months was 6 of 7 (85%). One patient died within 2 months of the procedure. One patient required a patch plasty for a kink in the venous-graft anastomosis at 22months.

Conclusions: Initial results are promising with minimal intervention required in the first year after implementation however further follow up and evidence is needed in this new area.

ABSTRACT 23

Title: Save Your Vein - A Health awareness campaign for renal patients and healthcare staff

Authors: Hall, C. Crane, J. S.

Institution/Affiliations: Imperial College Healthcare NHS Trust

Introduction: Renal patients require frequent venepuncture resulting in venous scarring. This makes arteriovenous fistula (AVF) creation technically challenging and more likely to fail. 'Save Your Vein' is a quality improvement initiative designed to increase AVF prevalence, deliver optimal dialysis care and reduce morbidity and costs.

Methods: The study was conducted in 3 parts using questionnaires: 1. Pre-campaign awareness and practice– Assessed in 136 patients and 80 healthcare professionals. 2. Campaign implementation– Patients in 10 hospitals were issued alert cards and leaflets. Staff were given lanyards and attended teaching sessions. Posters were placed in key areas. 3. Post-intervention awareness and practice – Assessed in 88 patients and 40 staff.

Results: Prior to intervention, 31.5% of patients and 3% of healthcare staff were aware of vein preservation. Of those aware, only 3% were preserving their veins. Post campaign results showed a marked improvement; 94% of patients and 92% of staff demonstrated awareness of vein preservation and 90% of patients underwent venepuncture in the back of the hand.

Discussion: The 'Save Your Vein' campaign was highly effective and resulted in improved practice. With charitable support, the campaign is being upgraded and extended nationally. Moving forwards, it is being augmented with additional tools including the provision of alert wristbands and staff learning modules.

Take-home message: The Save Your Vein campaign is a simple and effective intervention that has been proven to increase knowledge and practice of vein preservation

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THURSDAY 22ND SEPTEMBER 2016

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Dr Sonal Tripathi, Dr Tim Leach, Dr Julian Atchley, Dr David Flowers

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Javeria Peracha, Johann Nicholas

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Dr V. Lam, Dr S. Hudson, Dr M. Glasby, Dr K. Waters

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Sarah Kattenhorn Claire Whitehill Lyn Sanford Nelson Batualyn Julius Dagunan Paul Gibbs

P 2 B 18 **ESTABLISHING THE MULTI DISCIPLINARY VASCULAR ACCESS DEVELOPMENT AUDIT & RESEARCH (VADAR) GROUP. IMPROVING SERVICE DELIVERY AND DEVELOPING RESEARCH IDEAS WITH A SMILE.**
N Sangala & P Gibbs

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Mrs Alison Swain, Ms Joanne Tilbury, Dr Oliver Flossmann, Mr James Gilbert, Mr Sanjay Sinha, Dr Emma Vaux

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FRIDAY 23RD SEPTEMBER 2016

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Dr Tereza Cairns, Dr Ajith Kurien, Dr Jyoti Baharani

P 3 C 4 **WEIGHTED- CATHETER TECHNIQUE FOR PERITONEAL DIALYSIS**
S Stonelake, J Baharani, M Thomas, R Adkins, L Hollingsworth, T Wilmink

P 3 C 13 **APPLICATION OF REDUCE RISK STRATIFICATION SCORING TOOL TO PREDICT SUCCESS OF NEW ARTERIOVENOUS FISTULAS: A PROSPECTIVE STUDY**
L Mustafa-Kamil, M Anandarajah, I Sarantitis, S Drinkwater

P 3 C 19 **EFFECT OF ETHNICITY AND SOCIO-ECONOMIC FACTORS ON RENAL TRANSPLANTATION AND TIME ON HAEMODIALYSIS PRIOR TO TRANSPLANTATION**
Maria Mahmood, Lee Hollingworth, Jyoti Baharani, Teun Wilmink

P 4 D 7 **SHOULD THE RADIO-CEPHALIC ARTERIOVENOUS FISTULA BE THE FIRST SURGICAL OPTION?**
Mireia Cusso, Raghvinder Gambhir, Roberta Brambilla, Fatima De Figueiredo, Hiren Mistry, Domenico Valenti, Hisham Rashid

P 4 D 8 **TWO-STAGE BRACHIOBASILIC ARTERIOVENOUS FISTULA –IS IT REALLY WORTH THE EFFORT?**
M. Cusso, R. Brambilla, M. Ward, D. Valenti, H. Mistry, F. Calder, N. Karydis, I. Loukopoulos, , R. Gambhir

P 4 D 14 **ADEQUACY OF NON-STANDARD FOREARM ARTERIOVENOUS FISTULAE COMPARED TO STANDARD AVF AND ARM GRAFTS**
Massimo Vezzosi, Tamasin Stevenson, Sarah Powers, Lee Hollingworth, Jyoti Baharani, Teun Wilmink

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Beekno N, Sloane B, Mistry H, Slim H, Valenti D, Rashid H. Gambhir R

P 4 D 31 **A CASE OF UPPER LIMB VENOUS HYPERTENSION FROM AN AVF 'STUMP'**
O McCloskey, R Lindsay, W Loan, J Hanko

VASBI

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DEADLINE FOR ABSTRACTS: 14TH FEBRUARY 2017

(Email submission (100) on an Interesting Vascular Access Case to vasbi.org@gmail.com)

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VASBI 2017 TRAINEE DAY PROGRAMME

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DAY 1: WEDNESDAY 8TH MARCH 2017

10.30	Registration and coffee	
11.00	Introduction to RRT	Dr Sarah Lawman
11.45	Planning vascular access	Dr Jennifer Hanko
12.30	Lunch	
13.30	Imaging modalities – pre-op	Dr Rob Jones
14.15	Surgical assessment and fistula formation	Mr Paul Gibbs
15.00	Coffee	
15.30	PTFE and HeROics	Mr James Gilbert
16.15	Case discussions (All)	
17.45	Close	
19.00	Course Dinner (Faculty and Delegates)	

DAY 2: THURSDAY 9TH MARCH 2017

09.00	Coffee	
09.30	Needling and monitoring	Ms Sarah Kattenhorn
10.15	Fistula surveillance	Dr Johann Nicholas
11.00	Coffee	
11.30	Surgical Treatment of Complications	Mr Paul Gibbs
12.15	Radiological Treatment of Complications	Dr Rob Jones
13.00	Lunch	
14.00	Workshop (HeRO, Needling Model, AVF scanning, angiojet)	
16.00	Feedback and Prize for best case presentation	
16.15	Close	

Registration: £40, payable by cheque, BACS, online at www.vasbi.org.uk or call +44 (0)141 942 8104.
Deadline for abstracts: 14th February 2017. Please email abstract of no more than 100 words to vasbi.org@gmail.com. Each registrant to submit an abstract of no more than 100 words about an interesting vascular access case. Best 10 will be invited to do a 7 + 2 minute PowerPoint presentation at the end of Day 1 with a prize for the best case.

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CPD APPLIED

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