

# BSIR 2017

## ANNUAL MEETING



## DELEGATE HANDBOOK

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1ST-3RD NOVEMBER 2017

THE ICC  
BIRMINGHAM



British Society of  
Interventional  
Radiology

CORPORATE SPONSORS

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PLEASE VISIT THE BSIR MICROSITE:  
**<https://meeting.bsir.org>**

# WELCOME TO BSIR 2017

**BSIR ANNUAL SCIENTIFIC MEETING  
1ST - 3RD NOVEMBER 2017  
BIRMINGHAM INTERNATIONAL CONVENTION CENTRE**

Dear Delegates, Dear Industry Partners,

On behalf of the British Society of Interventional Radiology we welcome you to the 2017 annual scientific meeting in the vibrant city of Birmingham. The ASM will offer a great opportunity for interventional radiologists, trainees and allied healthcare professionals to learn from each other and to enjoy state-of-the-art lectures, cutting edge workshops and small seminars from national and invited international experts in the field of interventional radiology (IR). The meeting is the definitive UK platform for networking with our industry partners, who will highlight and showcase the latest innovations in minimally invasive, image-guided surgery.

This year there are many exciting presentations by national and international experts covering arterial and venous intervention, interventional GI- and urology and interventional oncology including irreversible electroporation.

There will be a range of exciting master classes that allows hands-on and interactive learning in various areas including arterial stents, GI stenting, renal intervention and venous disease. In addition, there are interactive workshops and seminars on embolisation and embolics agents, paediatric intervention, sedation techniques in interventional radiology, clinical coding for IR procedural reimbursement, transplant intervention and image guided ablation for solid organ tumours.

A new session format this year is a series of four 'Fundamentals of...' video workshops, which will demonstrate basic good technique by respective experts, aimed at senior trainee level and refreshers for experienced operators. In addition for the first time at BSIR our platinum sponsors will have a plenary session each.

We are privileged to have a range of international speakers coming from all around the globe ranging from USA to Korea. This year the Gold Medal will be awarded to Prof. M. Lee from Dublin and Honorary Fellowship will be awarded to Prof. H.-Y. Song from Seoul. Both will deliver state of the art lectures during the meeting.

Separate sessions for nurses and radiographers will be offered by the Society of Interventional Radiology Nurses and Radiographers (SIRNR). The British Society of Interventional Radiologists in Training (BSIRT) is hosting a parallel programme for Medical Students and Foundation Year doctors with an interest in interventional radiology.

Bursaries and essay competitions are being awarded to students and junior doctors to encourage their attendance at the meeting and to establish I/R as a career option. Birmingham is readily accessible by car and rail and has an international airport with excellent train connections.

More detailed information on the program is available on our website at [www.bsir.org](http://www.bsir.org). Please make the most of the opportunity to learn from and access leaders in the field, to network with national and international colleagues and enjoy the social programme. Any feedback and suggestions for future meetings are welcome and we encourage you to become involved in the society.

**Raman Uberoi**  
**President**

**Hans-Ulrich Laasch**  
**Chair of the SPC**

# SPEAKER INSTRUCTIONS

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## GENERAL:

There is no time in the conference schedule for over-running and the moderators of each session are under strict instructions to finish promptly. A cueing system is in use and if requested by the chairperson, please summarize and complete the presentation immediately.

## FINANCIAL/COMMERCIAL, & MHRA DECLARATIONS:

All presentations should include after the title slide, a separate slide stating a declaration of any sources of commercial sponsorship, honoraria etc. If there are no relevant sources please include a statement to that effect.

If for example, the paper concerns failure of a device (but not limited to), please include a statement to confirm that this has been reported to the MHRA. In addition, please state if 'off label' use of a drug or device is to be discussed in your presentation.

## SCIENTIFIC SESSIONS:

Please ensure that the presentation lasts 6 minutes or less, leaving 2 minutes for questions and debate. If you talk for more than 6 minutes, you will be interrupted and asked to sum up in 30 seconds to allow time for questions.

## PLENARY SESSIONS:

Please note the duration of each presentation according to the programme or as indicated by the session chairperson and allow an appropriate period for questions at the end of your talk.

## WORKSHOPS/MASTERCLASSES:

Please contact [meeting@bsir.org](mailto:meeting@bsir.org) for advice (if necessary) on structure.

## FILMING:

PLEASE NOTE: All sessions in Main Auditorium and Media Centre will be filmed as an educational resources for BSIR. These presentations will be held on a secure server on the BSIR website and will only be available to BSIR members.

## AV FACILITIES:

- Data projection is available in all conference & workshop rooms, therefore presenters will not be able to use their own laptop computers.
- There are no facilities for slide or OHP projection.
- The accepted presentation format is PowerPoint 2007 (Microsoft Office 2007) with an aspect ratio of 16:9. This is compatible with previous PowerPoint versions. Please do NOT bring any other presentation formats.
- Please choose the "On screen show" output within the "slide set up" menu when formatting your presentation.
- All presentations should be on CD Rom, or a USB compatible flash memory device.
- All presentation media should be clearly marked with session title, presenter surname & initials, title, date & time of presentation.
- Report to the duty AV technician in AV room as soon as possible and at least 4 hours before the presentation time to allow the presentation to be checked and loaded onto the system.
- We strongly recommend that if you intend to use VIDEO clips within a presentation, please send it to the AV technicians a minimum of 48 hours beforehand. General advice is that video clips in WMV format is the most likely to be compatible.
- You MUST inform the BSIR conference office ASAP if you have any additional AV/internet requirements. These cannot be guaranteed and must be discussed beforehand.

## THE BSIR AUDIO-VISUAL SERVICE CENTRE:

BSIR Registration Foyer, ICC Birmingham, Broad St, Birmingham B1 2EA.

OPENING TIMES:	Tuesday 31st October 2017	3pm to 6pm
	Wednesday 1st November 2017	8am to 6pm
	Thursday 2nd November 2017	8am to 6pm
	Friday 3rd November 2017	8am to 2pm

## FOR ALL MEETING AND EXHIBITION BOOKING ENQUIRIES, PLEASE CONTACT:

Ruth Moss, Course Organiser, BSIR Secretariat  
63 Lincoln's Inn Fields London WC2A 3JW  
Tel: +44 (0)20 7406 5998  
Email: [meeting@bsir.org](mailto:meeting@bsir.org)  
Web: [www.bsir.org](http://www.bsir.org)

# DAY 1 - WEDNESDAY 1ST NOVEMBER 2017

PLEASE BOOK MASTERCLASSES AT REGISTRATION: PLACES LIMITED

TIME:	SESSION, TOPIC & VENUE:	CHAIR* & SPEAKER:
08:45-08:55	<b>Introduction &amp; Welcome</b> (Main Auditorium Hall 1)	Dr Raman Uberoi
08:55-09:40	<b>State of the Art 1 - Peripheral Arterial Disease</b> <ul style="list-style-type: none"> <li>• Endovascular Treatment in PAD, What's New?</li> <li>• Conservative Management or Surgery, the only options for PAD</li> </ul>	Dr Raman Uberoi* & Dr Trevor Cleveland* Professor Stefan Müller-Hülsbeck Professor Andrew Bradbury
09:40-10:30	<b>Plenary 1 - Venous Disease</b> (Main Auditorium Hall 1) <ul style="list-style-type: none"> <li>• Recanalisation in Acute Thrombosis</li> <li>• Recanalisation in Chronic Thrombosis</li> </ul>	Professor Duncan Ettles* & Dr Raman Uberoi* Professor Mick Lee Dr Andy Wigham
10:30-10:55	<b>Refreshment Break &amp; Posters</b> (Exhibition: Hall 3)	
10:55-11:55	<b>Scientific Session 1 - Aortic, Visceral &amp; Major Venous Intervention</b> (Main Auditorium Hall 1)	Dr Mo Hamady* & Dr Graham Robinson*
10:55-11:55	<b>Scientific Session 2 - Interventional Oncology</b> (Media Suite) <p>Scientific Session Programmes are available on page 8. Scientific Session Abstracts are available from pages 31-36.</p>	Dr Dinuke Warakaulle* & Dr Damian Mullan*
12:00-12:30	<b>Industry Symposium 1</b> (Main Auditorium Hall 1) See page 9 for full programme.	Penumbra
12:30-13:15	<b>Lunch, Exhibition and Posters</b> (Exhibition: Hall 3)	
12:30-13:15	<b>Industry Showcases</b> See page 21 for full details & rooms.	
13:15-13:45	<b>Graham Plant Lecture - Great Expectations</b> (Media Suite) Perceptions, Practicalities and Progress in IR Training	Dr Raman Uberoi* Professor Duncan Ettles
13:50-14:50	<b>Masterclass A1 - Vascular Stents</b> (Hall 10a)	Professor Stefan Müller-Hülsbeck & Dr Raghuram Lakshminarayan
13:50-14:50	<b>Masterclass B1 - Urology</b> (Hall 10b)	Dr Amit Patel Dr Ros Ahmad Dr Cherian George Dr Ian McCafferty
13:50-15:50	<b>BSIR Political Session</b> (Media Suite) <ul style="list-style-type: none"> <li>• The IR Gender Gap</li> <li>• Work-life Balance</li> <li>• The Challenges of On-Call</li> </ul>	Dr Hilary White* & Professor Tze Wah* Professor Anna-Maria Belli Dr Iain Robertson Dr Jane Phillips-Hughes
15:00-15:55	<b>The consultant contract: Present and future</b> (Media Suite) Debate	Dr Anne Carson
14:55-15:55	<b>Masterclass A2 - Vascular Stents</b> (Hall 10a)	Professor Stefan Müller-Hülsbeck & Dr Raghuram Lakshminarayan



# DAY 1 - WEDNESDAY 1ST NOVEMBER 2017

PLEASE BOOK MASTERCLASSES AT REGISTRATION: PLACES LIMITED

TIME:	SESSION, TOPIC & VENUE:	CHAIR* & SPEAKER:
14:55-15:55	<b>Masterclass B2 - Urology</b> (Hall 10b)	Dr Amit Patel Dr Ros Ahmad Dr Cherian George Dr Ian McCafferty
13:50-15:55	<b>SIRNR Symposium</b> (Main Auditorium Hall 1) See page 22 for full programme.	
15:55-16:15	<b>Refreshment Break &amp; Posters</b> (Exhibition: Hall 3)	
16:15-17:00	<b>Plenary 2 - Urology Challenges</b> (Main Auditorium Hall 1) Interactive Case Discussions	Dr Phil Haslam* Dr Ian McCafferty & Dr Amit Patel
16:15-17:00	<b>Plenary 3 - Transarterial Therapies for HCC</b> (Media Suite) • TACE for HCC • SIRT for HCC	Dr Jai Patel* & Dr Pavan Najran* Dr Christoher Hammond Dr Jonathan Bell
16:15-17:00	<b>BSIR Workshop 1 - Radial Access</b> (Hall 11b)	Dr Damian Mullan
17:05-17:50	<b>State of the Art 2 - Benign Embolisation</b> (Media Suite) • Prostate • Uterus	Dr Graham Robinson* & Professor Duncan Ettles* Dr Tim Bryant Professor Duncan Ettles
17:05-17:50	<b>State of the Art 3 - Ablation</b> (Main Auditorium Hall 1)	Professor Tze Wah* & Professor Raj Narayanan
17:05-17:50	<b>BSIR Workshop 2 - Developing Intellectual Property</b> (Hall 11b)	Mr Julian Potter
17:55-18:35	<b>Morbidity and Mortality: My biggest clanger</b> (Main Auditorium Hall 1)	Dr Nabil Kibriya*, Dr Damian Mullan, Dr Peter Littler & Dr Homoyon Mehrzad
18.00-19.15	<b>Welcome Drinks Reception</b> (Exhibition Hall 3/Foyer)	

# SCIENTIFIC SESSIONS 1 & 2

## SCIENTIFIC SESSION 1: AORTIC, VISCERAL & MAJOR VENOUS INTERVENTION

Main Auditorium Hall 1 - Wednesday 1st November 2017

Moderators: Dr Mo Hamady & Dr Graham Robinson

ORDER: TITLE, SPEAKER & INSTITUTE

- 1 Long term complications and sequela of percutaneous groin access for EVAR**  
Krit Dwivedi - Sheffield Teaching Hospitals NHS Trust, Sheffield Vascular Institute
- 2 Introducing a catheter directed thrombolysis for life-threatening acute pulmonary embolus**  
Jules Harvey - St Thomas' Hospital, Interventional Radiology
- 3 Endovascular Management of Aorto-enteric Fistulas**  
Alexa Templeton - Southampton University Hospital Trust, Vascular Surgery
- 4 10-year Outcomes of Transjugular Intrahepatic Portosystemic Shunt treatment for Budd-Chiari Syndrome.**  
Lazaros Reppas - Attikon University General Hospital, Athens, Greece, 2nd Radiology Department, Interventional Radiology Unit
- 5 Dose reduction strategies using hybrid theatre technology during Endovascular Repair of Abdominal Aortic aneurysm**  
Srujana Ganti - Pennine Acute NHS Trust, Clinical Radiology
- 6 Hybrid vascular suites: a necessity or luxurious investment**  
Usman Raja - Imperial College Healthcare NHS Trust, Interventional Radiology

## SCIENTIFIC SESSION 2: INTERVENTIONAL ONCOLOGY

Media Suite - Wednesday 1st November 2017

Moderators: Dr Dinuke Warakaulle & Dr Damian Mullan

ORDER: TITLE, SPEAKER & INSTITUTE

- 7 Percutaneous Irreversible Electroporation (IRE) of hepatic malignancy: a bi-institutional analysis of safety and outcomes**  
Sebastian Mafeld - Freeman Hospital, Interventional Radiology
- 8 Image Guided Irreversible Electroporation (IRE) of Renal Tumours: The Early Experience at a Regional Cancer Centre**  
Tze Min Wah - Leeds Cancer Centre, Institute of Oncology, Leeds Teaching Hospitals Trust, Beckett Street, Leeds LS8 2QF, Diagnostic and Interventional Radiology
- 9 Cryoablation of benign soft tissue lesions in children: initial experience**  
Alex Barnacle - Great Ormond Street Hospital for Children, Radiology
- 10 Outcomes and efficacy of thermal ablation of malignant renal tumours at a tertiary centre**  
Lizzie O'Mahony - Royal Liverpool University Hospital, Interventional Radiology
- 11 Selective Internal Radiation Therapy (SIRT) with Yttrium-90 followed by Liver Resection: safety and outcomes**  
Sebastian Charles Mafeld - Freeman Hospital, Interventional Radiology
- 12 Radioembolization With Yttrium-90 For Advanced Hepatocellular Carcinoma: A Ten-Year Canadian Experience.**  
Behnam Shaygi - University of Alberta Hospital, Interventional Radiology



# PENUMBRA EVENTS

## — BSIR 2017 —

WEDNESDAY, 1 NOVEMBER 2017

WORKSHOP | 10:00–16:00 | MAIN EXHIBIT FLOOR

### **Meet The Expert Workshop: Mechanical Thrombectomy in Stroke from one of the MR CLEAN centres**

**Dr. D. Van Den Heuvel**

St. Antonius Ziekenhuis Nieuwegein, Netherlands

Followed by a Hands-On Device Training & Discussion

Visit us at booth C2 to schedule a time to attend this open workshop. We will cater to your availability.

SYMPOSIUM | 12:00–12:30 | MAIN HALL

### **The Indigo System's Role in My Practice: for Fistula and Venous Thrombosis**

**Dr. Bella Huasen**

Royal Preston Hospital – Preston, United Kingdom



Product availability varies by country. Prior to use, please refer to the Instructions for Use for Indigo Aspiration System and Penumbra Pump MAX for complete product indications, contraindications, warnings, precautions, potential adverse events, and detailed instructions for use. Please contact your local Penumbra representative for more information.

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# DAY 2 - THURSDAY 2ND NOVEMBER 2017

PLEASE BOOK MASTERCLASSES AT REGISTRATION: PLACES LIMITED

TIME:	SESSION, TOPIC & VENUE:	CHAIR* & SPEAKER:
08:45-09:40	<b>BSIR - Stroke Thrombectomy</b> (Main auditorium Hall 1) • Lessons from the German Model • Training for IR in Stroke Thrombectomy • Feasibility of a UK 24/7 Service • Discussion	Dr Raman Uberoi* & Dr Trevor Cleveland* Professor Stefan Müller-Hülsbeck Dr Raman Uberoi Dr Trevor Cleveland Professor Phil White
08:45-09:40	<b>Fundamentals 1 - PTC</b> (Hall 10a)	Professor Otto Van Delden
09:45-10:30	<b>Plenary 4 - 30 Years of GI Intervention: From the Mind to the Global Stent Market</b> (Media Suite)	Professor Hans-Ulrich Laasch* Professor Ho-Young Song
09:45-10:30	<b>MDT - Locally Advanced Pancreatic Cancer</b> (Main auditorium Hall 1) • Interventional Radiology • Clinical Oncology • Medical Oncology • Pancreatic Cancer	Dr Peter Littler* & Dr Praveen Peddu* Professor Raj Narayanan Dr Katharine Aitken Dr Mairead McNamara Mr Andy Smith
09:45-10:30	<b>Fundamentals 2 - EVAR</b> (Hall 10a)	Dr Raghuram Lakshminarayan & Dr Raj Bhat
10:30-10:55	<b>Refreshment Break &amp; Posters</b> (Exhibition Hall 3)	
11:00-12:00	<b>Scientific Session 3 - Peripheral Vascular Intervention</b> (Main auditorium Hall 1)	Dr Vivek Shrivastava* & Dr Ramita Dey*
11:00-12:00	<b>Scientific Session 4 - GI / Hepatobiliary / Genitourinary</b> (Media Suite)  Scientific Session Programmes are available on page 12. Scientific Session Abstracts are available from pages 37-42.	Professor Tze Wah* & Dr Robert Stockwell*
12:00-12:30	<b>Industry Symposium 2 Medtronic: Expanding your Embolisation Options</b> (Main auditorium Hall 1) See page 13 for full programme.	Dr Trevor Cleveland* Dr Rob Morgan & Dr Dan Kusama
12:30-13:20	<b>Lunch, Exhibition and Posters</b> (Exhibition Hall 3) BSIRT AGM (Media Suite)	
12:30-13:00	<b>Industry Showcases</b> See page 21 for full details & rooms.	
12:30-13:20	<b>Poster Competition Winners: On the Soap Box</b> (Exhibition Hall 3)	Professor Hans-Ulrich Laasch
13:20-14:05	<b>Wattie-Fletcher Lecture</b> (Main Auditorium Hall 1) The Thin White Duke, 1805, The Beagle and UK Interventional Radiology	Dr Raman Uberoi* Dr Robert Morgan
14:05-14:20	<b>Gold Medal Presentation</b> - Recipient: Professor Mick Lee <b>Honorary Fellowship</b> - Recipient: Professor Ho-Young Song <b>Honorary Membership</b> - Recipient: Dr Richard Fitzgerald	
14:20-15:10	<b>BSIR AGM</b> Inauguration of new BSIR President: Dr Trevor Cleveland	Dr Raman Uberoi

# DAY 2 - THURSDAY 2ND NOVEMBER 2017

PLEASE BOOK MASTERCLASSES AT REGISTRATION: PLACES LIMITED

TIME:	SESSION, TOPIC & VENUE:	CHAIR* & SPEAKER:
14.20-15.10	<b>SIRNR AGM</b> (Media Suite)	
15.15-16.15	<b>Masterclass C1 - GI Stents</b> (Hall 10a)	Professor Hans-Ulrich Laasch Professor Ho-Young Song Mr Derek Edwards
15.15-16.15	<b>Masterclass D1 - Venous</b> (Hall 10b)	Professor Mick Lee Dr Sam Byott Dr Nick Chalmers Dr Mark Given
15.15-16.15	<b>BSIR Workshop 3 - Embolics</b> (Hall 11b)	Dr Ram Kasthuri
15.15-16.15	<b>BSIR Committees Headlines</b> (Hall 11a) <ul style="list-style-type: none"> <li>• Registries &amp; Audit</li> <li>• Communications</li> <li>• Education</li> <li>• Sponsorship registrations 2018</li> <li>• PR: Update &amp; Strategy</li> </ul>	Dr Said Habib Dr Phil Haslam Dr Raj Bhat ABHI PB Consulting
16:15-16.35	<b>Refreshment Break &amp; Posters</b> (Exhibition Hall 3)	
16.35-17.35	<b>Masterclass C2 - GI Stents</b> (Hall 10a)	Professor Hans-Ulrich Laasch Professor Ho-Young Song Mr Derek Edwards
16.35-17.35	<b>Masterclass D2 - Venous</b> (Hall 10b)	Professor Mick Lee Dr Sam Byott Dr Nick Chalmers Dr Mark Given
16.35-17.35	<b>BSIR Workshop 4 - Coding and Billing I/R Procedures</b> (Hall 11b)	Dr Craig Jobling
16.35-17.35	<b>BASIL Symposium</b> (Media Suite)	Professor Andrew Bradbury
17:40-18:40	<b>Complex Cases Panels</b> (Main auditorium Hall 1) Panel A: Dr Rob Morgan, Dr Hilary White & Professor Otto Van Delden Panel B: Dr Jane Phillips-Hughes, Dr Raman Uberoi & Professor Mike Lee	Dr Raj Bhat* & Dr Ram Kasthuri*
19:45	<b>Annual Dinner</b> (Hall 4)	

# SCIENTIFIC SESSIONS 3 & 4

## SCIENTIFIC SESSION 3: PERIPHERAL VASCULAR INTERVENTION

Main Auditorium Hall 1 - Thursday 2nd November 2017

Moderators: Dr Vivek Shrivastava & Dr Ramita Dey

ORDER: TITLE, SPEAKER & INSTITUTE

- 13 Mid-term single centre experience of "off-label" use of Vascutek Anaconda iliac limb stent grafts in the endovascular repair of popliteal artery aneurysms (EVPAR).**  
Dr Graham Pollock - Royal Derby Hospital, Imaging
- 14 Drug eluting versus standard balloon angioplasty for infrainguinal revascularisation in claudication and critical limb ischaemia: Three year follow up data.**  
Rosemary Cadwallader - University Hospital of South Manchester, Vascular and Endovascular Surgery
- 15 The effect of antiplatelet and warfarin therapy on access site pseudo-aneurysm thrombin injection**  
Dr Jonathan Delf - University Hospitals of Leicester, Radiology
- 16 Catheter-directed thrombolysis (CDT) and/or mechanical thrombectomy for acute iliofemoral DVT at a single centre**  
Mandela Thyoka - Sheffield Vascular Institute, Vascular Radiology
- 17 Venous thrombolysis: a single centre experience.**  
Sai Wunnava, Newcastle University
- 18 Aspirex Thrombectomy Procedures In Occluded Renal Dialysis Access Fistulae**  
Simon Lambracos - Epsom & St Helier Trust, Gastroenterology

## SCIENTIFIC SESSION 4: GI HEPATOBIILIARY / GENITOURINARY

Media Suite - Thursday 2nd November 2017

Moderators: Professor Tze Wah & Dr Robert Stockwell

ORDER: TITLE, SPEAKER & INSTITUTE

- 19 Radiological Venting Gastrostomy for the Management of Malignant Bowel Obstruction**  
Abedi Farhad Syed Abbas Hasan - The Christie Hospital NHS Trust, Radiology
- 20 Work in progress: Exploring the molecular mechanisms of NiTiNOL degradation leading to failure of GI stents.**  
Stephen J. Black - MATOM Ltd., Analytical Services
- 21 Success rates of forceps biliary biopsy vs. brushing cytology at PTC: A retrospective single centre analysis**  
Nikhil Birdi - Freeman Hospital, Newcastle upon Tyne, Radiology
- 22 Ella-HV anti-migration stent demonstrates superior performance for cancers of the Gastro-oesophageal junction.**  
Joe Mercer - The Christie NHS Foundation Trust, Radiology
- 23 Bacterial isolates from urinary cultures obtained during percutaneous genitourinary interventions: are we prescribing antibiotics effectively and appropriately?**  
Muhammad Khan - The Christie NHS Foundation Trust, Department of Radiology
- 24 Clinical benefit of collagen transhepatic track embolisation after percutaneous biliary procedures (PTC).**  
Matthew Hancock - The Christie NHS FT, Dept. of Radiology

# CORPORATE SYMPOSIUM - MEDTRONIC

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THURSDAY 2ND NOVEMBER 2017

Medtronic

Main Auditorium, 12.00-12.30

**Expanding your Embolisation Options**

Chair: Dr Trevor Cleveland, Sheffield Teaching Hospitals

**Novel Approaches in Endoleak Management**

Speaker: Dr Rob Morgan, St George's Hospital London

**Emerging Therapy for Pulmonary AVM**

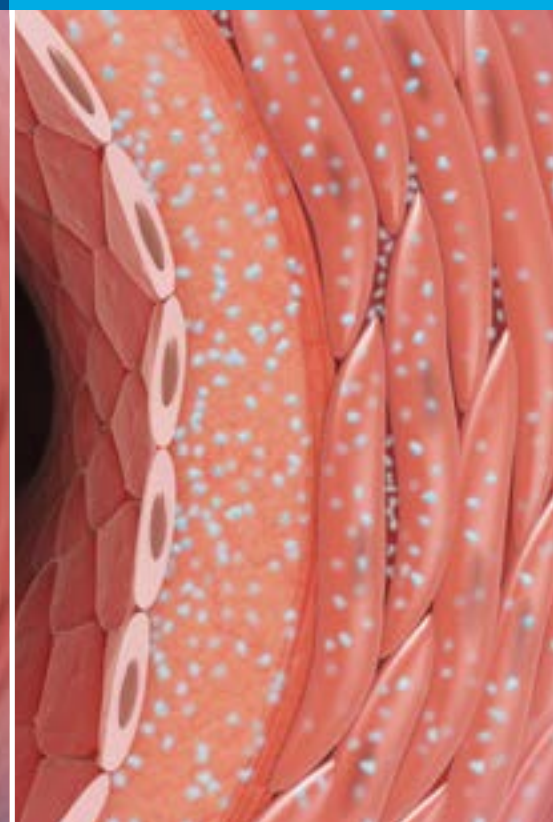
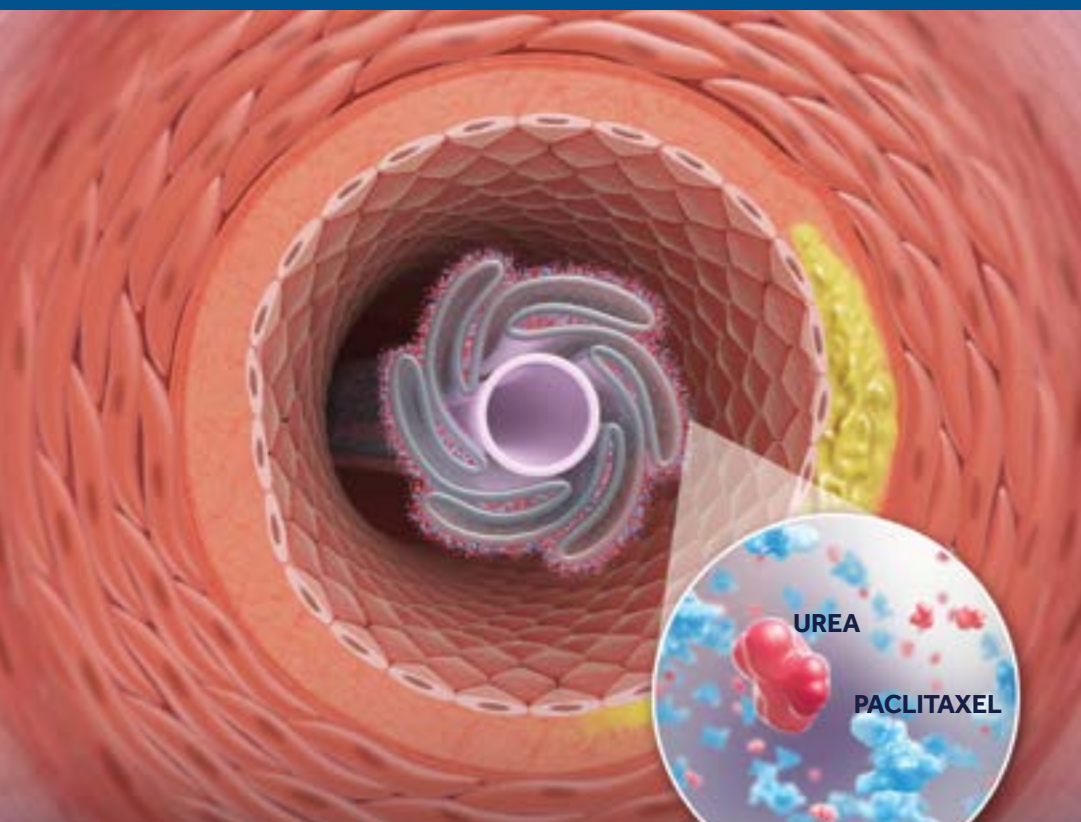
Speaker: Dr Dan Kusuma, Sheffield Teaching Hospitals

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represents the next generation of Paclitaxel  
releasing balloon technologies.*

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# DAY 3 - FRIDAY 3RD NOVEMBER 2017

PLEASE BOOK MASTERCLASSES AT REGISTRATION: PLACES LIMITED

TIME:	SESSION, TOPIC & VENUE:	CHAIR* & SPEAKER:
08:50-09:40	<b>Plenary 5 - Trauma Assessment, Imaging Protocols &amp; Procedures</b> (Main auditorium Hall 1) • Trauma Imaging • Trauma Intervention	Dr John Curtis* & Dr Ram Kasthuri* Dr John Curtis Dr Erika Kashef
09:45-10:35	<b>Biliary Round Table</b> (Main auditorium Hall 1) • IR • EUS • Surgery	Professor Otto Van Delden* Dr Homoyon Mehrzad Dr Brin Mahon Mr Keith Roberts
09:45-10:35	<b>Plenary 6 - Transplant Intervention</b> (Media Suite) • Renal Transplant • Liver Transplant • Multivisceral Transplant	Dr Teik Choon See* & Dr Neil Davies* Dr Sapna Puppala Dr Neil Davies Dr Teik Choon See
10:40-11:40	<b>Scientific Session 5 - Farrago</b> (Main auditorium Hall 1)	Dr Rubeena Razzaq* & Dr Nabil Kibrya*
10:40-11:40	<b>Scientific Session 6 - Embolisation</b> (Media Suite)	Dr Steve Thomas* & Dr Teik Choon See*
	Scientific Session Programmes are available on page 18. Scientific Session Abstracts are available from pages 43-48.	
11:45-12:15	<b>Industry Symposium 3 - BVM</b> (Main auditorium Hall 1) See page 19 for full programme.	
12:15-12:55	<b>Brunch &amp; Posters</b> (Exhibition Hall 3)	
12:15-12:55	<b>Fundamentals 3 - TIVAD Insertion</b> (Media Suite)	Dr Ram Kasthuri
12:15-12:55	<b>Fundamentals 4 - Nephrostomy</b> (Hall 11b)	Dr Phil Haslam
13:00 - 13:50	<b>Plenary 7 - Dialysis Access Intervention 2017</b> (Main auditorium Hall 1) • Access Maintenance & Salvage : All you need to know • A Changing Paradigm: Pathophysiology of AV Access Stenosis as a guide to treatment. • Endovascular creation of Dialysis Fistulae • Stent-grafts in AV Access	Dr Robert Jones & Dr Peter Riley* Dr Nick Chalmers Dr Kate Steiner  Dr Rob Jones Dr Peter Riley
13:00-13:50	<b>Plenary 8 - Paediatric Intervention</b> (Media Suite) • Central Venous Access • Biodegradable Stents & HPB • Arterial & Trauma Intervention • Paediatric Specific IR issues	Dr Sam Stuart * & Dr Aneeta Parthipun Dr Sam Stuart Dr Simon McGuirk Dr Sam Byott Dr Alex Barnacle
13:00-13:50	<b>BSIR Workshop 5 - Sedation</b> (Hall 11b) Issues in the Interface of Anaesthesia and IR	Dr Shane George President SAIR

# DAY 3 - FRIDAY 3RD NOVEMBER 2017

PLEASE BOOK MASTERCLASSES AT REGISTRATION: PLACES LIMITED

TIME:	SESSION, TOPIC & VENUE:	CHAIR* & SPEAKER:
13:55-14:45	<b>State of the Art 4 - Complex EVAR</b> (Main Auditorium Hall 1) <ul style="list-style-type: none"><li>• Why is IFU Important ?</li><li>• Fenestrated and Branched Solutions</li><li>• Polymer Based Solutions ?</li><li>• Off IFU Solutions</li><li>• When EVAR goes wrong</li></ul>	Dr Raghuram Lakshminarayan* & Dr Steve Butterfield*  Dr Dare Seriki & Dr Steve Butterfield
13:55-14:45	<b>State of the Art 5 - Obstetric Haemorrhage</b> (Media Suite) <ul style="list-style-type: none"><li>• Service Delivery</li><li>• Technique and Outcome</li></ul>	Dr Mo Hamady* & Dr Damian Mullan* Dr Rafiuddin Patel Professor Anna-Maria Belli
13:55-14:45	<b>BSIR Workshop 6 - Ablation</b> (Hall 11b)	Dr Nick Railton Dr Guy Hickson Dr Homoyon Mehrzad Dr Ian McCafferty
14:45-15:00	<b>Meeting Close</b> (Main Auditorium Hall 1)	Dr Trevor Cleveland



British Society of  
Interventional  
Radiology

## SOCIETY OF ANAESTHETISTS IN RADIOLOGY

The Society of Anaesthetists in Radiology is a young society that seeks to share experience amongst disparate specialist anaesthetists who work in the radiology suite.

Our current focus is on highlighting safety for anaesthetists, including trainees, whilst working in the different radiology suites, and understanding and promoting effective resources where anaesthesia is required to support Radiological procedures

# SCIENTIFIC SESSIONS 5 & 6

## SCIENTIFIC SESSION 5: FARRAGO

Main Auditorium Hall 1 - Friday 3rd November 2017

Moderators: Dr Rubeena Razzaq & Dr Nabil Kibrya

ORDER: TITLE, SPEAKER & INSTITUTE

- 25 **The Interventional Radiology Nurse Practitioner: Rationale, Role Development and Outcomes**  
Jimmy Kyaw Tun - Barts Health NHS Trust,
- 26 **CT guided transforaminal cervical epidural injection**  
Humza Mahmood - Princess Alexandra Hospital,
- 27 **The contribution of IR to the management of children with button battery ingestion injury**  
Alex Barnacle - Great Ormond Street Hospital for Children
- 28 **Eye Radiation Monitoring and Protection**  
Cha-ney Kim - Hull Royal Infirmary
- 28 **Why we should all own a PlayStation®**  
Ali Alsafi - Imperial College Healthcare NHS
- 30 **Real world IR costs - a first national multicentre survey**  
Duncan Ettles - Hull Royal Infirmary

## SCIENTIFIC SESSION 6: EMBOLISATION

Media Suite - Friday 3rd November 2017

Moderators: Dr Steve Thomas & Dr Teik Choon See

ORDER: TITLE, SPEAKER & INSTITUTE

- 31 **Experience with bronchial artery embolization for haemoptysis in patients with aspergilloma**  
Krishna Prasad Bellam Premnath - Barking Havering Redbridge University Hospitals NHS Trust
- 32 **Out-of-hours endovascular haemorrhage control procedures in Scotland in 2009 and 2014: caseload, casemix and 30-day mortality**  
Neil Young - Ninewells Hospital
- 33 **Embozene versus Onyx embolisation of renal angiomyolipoma**  
Shahabaz Patil - Queen Elizabeth Hospital, Birmingham
- 34 **Role of pelvic venography and ovarian vein embolization in the treatment of lower limb varicosity, a single centre experience.**  
Yassir Al-Radhi - Hull Royal Infirmary
- 35 **Endovascular treatment modalities for haemorrhage control in abnormal placental implantation deliveries: a systematic review and meta-analysis**  
Yousef Shahin - University of Sheffield and Sheffield Teaching Hospitals NHS
- 36 **GDA embolisation in UGI non variceal bleed: single centre experience**  
Alberto Nania - Royal infirmary of Edinburgh

# CORPORATE SYMPOSIUM - BVM

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FRIDAY 3RD NOVEMBER 2017

BVM

Main Auditorium, 12.00-12.30

**Challenges of Radiology in Zambia and How You (BSIR) Can Help**

Speaker: Kay Hackett, Senior Lecturer in Radiography, Bradford University

**Challenges of Radiology in Trinidad and Tobago and How You (BSIR) Can Help**

Speaker: Dr Shivani Persad, Hull Royal Infirmary

BVM  
24 hours a day

# MASTERCLASSES & WORKSHOPS

PLEASE BOOK MASTERCLASSES AT REGISTRATION: PLACES LIMITED

TIME:	SESSION, TOPIC & VENUE:	CHAIR* & SPEAKER:
<b>WEDNESDAY 1ST NOVEMBER 2017</b>		
13.50-14.50	<b>Masterclass A1 - Vascular Stents</b> (Hall 10a)	Professor Stefan Müller-Hülsbeck Dr Raghuram Lakshminarayan
	<b>Masterclass B1 - Urology</b> (Hall 10b)	Dr Amit Patel Dr Ros Ahmad Dr Cherian George Dr Ian McCafferty
	A2 & B2 Repeated from 14.55-15.55	
16.15-17.00	<b>BSIR Workshop 1 - Radial Access</b> (Hall 11b)	Dr Damian Mullan
17.05-17.50	<b>BSIR Workshop 2 - Developing Intellectual Property</b> (Hall 11b)	Mr Julian Potter
<b>THURSDAY 2ND NOVEMBER 2017</b>		
15.15-16.15	<b>Masterclass C1 - GI Stents</b> (Hall 10a)	Professor Hans-Ulrich Laasch Professor Ho-Young Song Mr Derek Edwards Dr Gareth Davies Professor Sung-Gwon Professor Otto Van Delden
15.15-16.15	<b>Masterclass D1 - Venous</b> (Hall 10b)	Professor Mick Lee Dr Sam Byott Dr Nick Chalmers Dr Mark Given
	C2 & D2 Repeated from 16.35-17.35	
15.15-16.15	<b>BSIR Workshop 3 - Embolics</b> (Hall 11b)	Dr Ram Kasthuri
16.35-17.35	<b>BSIR Workshop 4 - Coding and Billing I/R Procedures</b> (Hall 11b)	Dr Craig Jobling
<b>FRIDAY 3RD NOVEMBER 2017</b>		
13.00-13.50	<b>BSIR Workshop 5 - Sedation</b> (Hall 11b)	Dr Shane George
13.55-14.45	<b>BSIR Workshop 6 - Ablation</b> (Hall 11b)	Dr Guy Hickson Dr Nick Railton Dr Homoyon Mehrzad Ian McCafferty



# MAJOR SPONSOR PROGRAMME

## TERUMO

Day 1 - Wednesday 1st November 2017, 12.45-13.15, On Stand

Title: **Revealing the Unseen Dimension of SIRT - QuiremSpheres**  
Speaker: Sander Poelert - Product Manager QuiremSphere

## COOK MEDICAL

Day 1 - Wednesday 1st November 2017, 12.45-13.15, On Stand

Title: **Venous stenting- our experience**  
Speaker: Prof Michael Lee - Professor of Radiology & Consultant in Interventional Radiology, Beaumont Hospital Dublin

Day 2 - Thursday 2nd November 2017, 12.30-13.00, On Stand

Title: **Endobiliary biopsy vs EUS FNA for proximal biliary strictures**  
Speaker: Dr. Homoyoon Mehrzad - Consultant Interventional Radiologist, University Hospital Birmingham

## BTG

Day 1 - Wednesday 1st November 2017, 12.45-13.15, Hall 11b

Title: **DC Bead LUMI™ Hands on Workshop**  
Speaker: BTGplc innovation team

Day 2 - Thursday 2nd November 2017, 12.30-13.00, Hall 11b

Title: **State of the art treatment for Pulmonary Embolism**  
Presenter: Dr Narayan Karunanithy - Guys and St Thomas'

## BOSTON SCIENTIFIC

Day 1 - Wednesday 1st November 2017, 12.45-13.15, On Stand

Title: **"Meet the expert" - Jetstream Atherectomy: a helpful tool in complex PAD**  
Speaker: Dr Richard O'Neill - Nottingham University Hospital

Day 2 - Thursday 2nd November 2017, 12.30-13.00

# SIRNR PROGRAMME

Main Auditorium Hall 1 - Wednesday 1st November 2017

TITLE	SPEAKER
Importance of Evidence based guidelines in IR	Kay Hackett
IVC Filter	Marie Nixon
Role Development	Mary Donnelly
Survey Resultys & Feedback	Kelly Harris



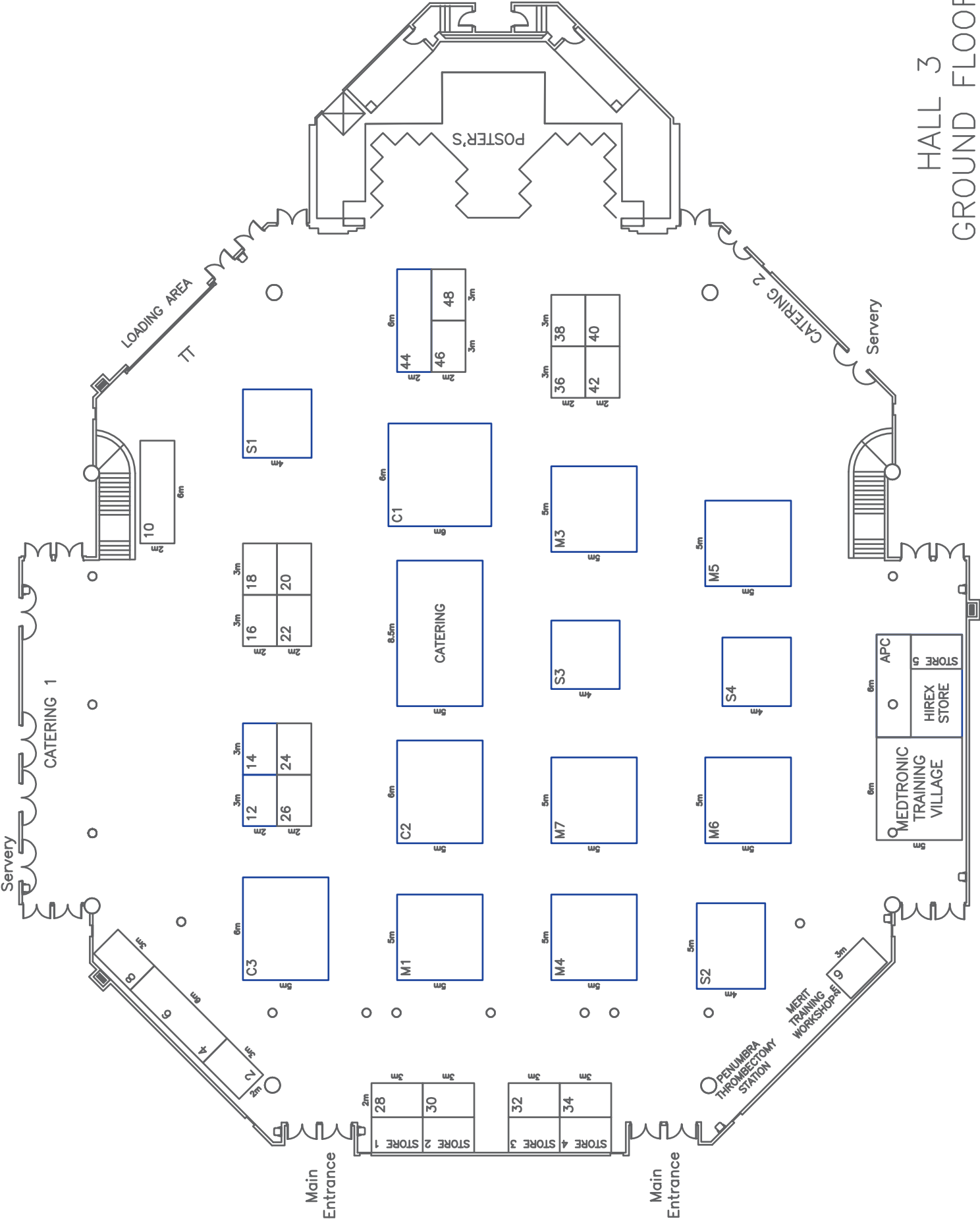
# TRAINEE DAY PROGRAMME

Main Auditorium Hall 1 - Friday 3rd November 2017  
The ICC Birmingham  
Hall 11a

TIME:	SESSION, TOPIC & VENUE:	CHAIR* & SPEAKER:
08.50-09.10	<b>Introduction</b>	
08.50-09.00	• Plan of Session	Shao Ong
09.00-09.10	• Radial Access Talk	
09.10-10.30	<b>Workshops</b> (Hall 3 Balcony Area) Workshop stations rotate every 20 mins	
10.30-10.50	<b>Coffee Break</b>	
10.50-11.30	<b>Workshops</b> (Hall 3 Balcony Area) Workshop stations rotate every 20 mins	
11.30-11.45	<b>Conclusion</b>	
	• Feedback Collection	Shao Ong
	• Question & Answers	BSIRT committee
11.45-12.15	<b>Re-Join Main Industry Symposium</b>	
12.15-12.45	<b>Brunch &amp; Posters</b>	
12.45-14.45	<b>Leadership Specials Talks - "Why I Do IR In..."</b>	
12.45-13.05	• Interventional Robots	Dr Mo Hamady
13.05-13.25	• Gastrointestinal & Oncological Intervention	Dr TC See
13.25-13.45	• Aortic & Vascular Intervention	Dr Sapna Puppala
13.45-14.05	• The Future of IR Training	Dr Trevor Cleveland
14.05-14.45	<b>Bsirt Trainee Day Closing Remarks</b>	
	• Feedback Collection	Dr Fatemeh Sakhinia
	• Question & Answers	Shao Ong
		BSIRT committee
14.45-15.00	<b>Meeting Close</b>	BSIR president

# EXHIBITION PLAN

## HALL 3 GROUND FLOOR



# LIST OF EXHIBITORS

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## MAJOR SPONSORS

SS	Sponsor
C1	BVM
C2	Penumbra
C3	Medtronic
M1	Vascutek
M3	Cook
M4	BTG
M5	Sirtex
M6	Boston
M7	Terumo
S1	Abbot
S2	Merit
S3	W.L. Gore
S4	Spectranetics

## ADDITIONAL SPONSORS

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10	Macromed
12	Cardinal
14	Cardinal
16	Delcath
18	Philips
20	Toshiba
21	APC Cardiovascular
22	Mana Tech
24	Vygon
26	Mermaid
28	GE
30	BD Medical
32	Frontmed
34	UK Medical
36	Bard
38	Trust Medical
40	Oncology
42	Bard
44	VP
46	Endologix
48	Medax

CRest2. Trial  
BASIL TRIAL  
BIBA MEDICAL  
NVD registry



# CReST2

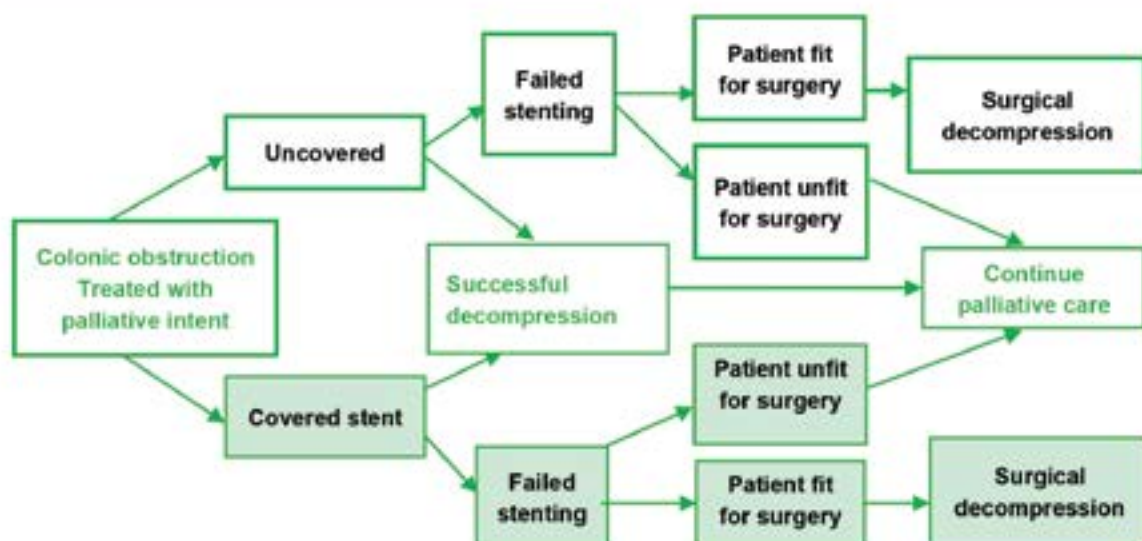
## ColoRectal Stenting Trial 2

Uncovered vs covered endoluminal stenting in the acute management of obstructing colorectal cancer in the palliative setting

### RATIONALE

- Colorectal cancer is the second most common cause of cancer death in the UK. Each year around 15% of people with colorectal cancer present with an obstruction
- Patients are living longer with stents in situ, so choosing the right design of stent is important to maximise quality of life. The type of stent may also affect rate of reintervention, and therefore costs
- Two designs of stent are in common use in the UK today. Nine out of ten stents placed to relieve an obstruction in those with colorectal cancer are uncovered, i.e. the stents are made of bare metal. The remaining stents in use in the UK are covered stents. These stents have a plastic covering designed to reduce the chance of blockage
- Currently there is insufficient information to decide which of these two stent types is the best to use in people with colorectal cancer. CReST2 is designed to determine which stent design is the most efficacious in improving the quality of life in patients with bowel obstruction arising from colorectal cancer.

### TRIAL DESIGN



#### CReST2:

- 5 year, NIHR HTA funded trial
- Blinded, Phase III Randomised Controlled Trial
- The trial aims to randomise 350 patients in 3 years
- 12 month internal feasibility phase

### ELIGIBILITY CRITERIA

#### Inclusion criteria:

- Patients, aged 16 or over
- Obstructing colorectal cancer which is to be treated with palliative intent
- Patients able and willing to give written informed consent.

#### Exclusion criteria

- Patients with impending or established perforation of the colon
- Patients with low rectal cancer (i.e. carcinoma in the lower third of the rectum)
- Patients being treated or considered for treatment with antiangiogenic drugs (e.g. bevacizumab)
- Pregnant patients.



Do you treat patients:

- with obstructing colorectal cancer?
- to be treated palliatively?



**CReST2 is a randomised controlled trial to compare covered and uncovered endoluminal stents in the palliative setting.**

**If you are interested in opening  
CReST2 at your hospital  
PLEASE CONTACT**

**CReST2 Trials Office  
BCTU | University of Birmingham  
Public Health Building  
Edgbaston | Birmingham B15 2TT  
☎ 0121 415 9103 | ✉ CReST2@trials.bham.ac.uk  
Suzanne Lockyer | CReST2 Trial Coordinator**

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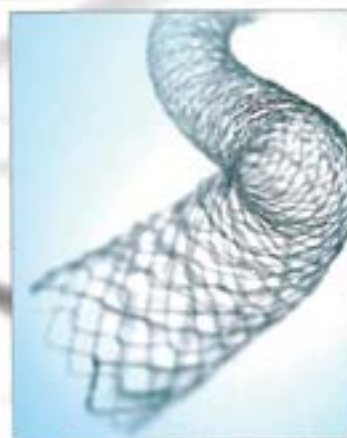
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# EGIS

*The Gastrointestinal Stents*



**EGIS, the Stents for** the Esophageal  
the Biliary  
the Pyloric  
the Colorectal

# CASE STUDY SCHOLARS

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Doctor Wasim Hakim

Doctor Drew Maclean

Doctor Nathania Bonanno

Doctor Wiliam Rhodri Thomas

Doctor Lara Maria Zammit

Doctor Jimmy Kyaw Tun

Doctor Dhiraj Joshi

Doctor Jim Zhong

Doctor Mark Macmillan

Doctor Andrew Gemmell

Doctor Gaurav Sundar

Doctor Ali Alsafi

Doctor Usman Raja

Doctor An Ngo

Doctor Tarryn Carlsson

Doctor Bella Huasen



# ABSTRACTS - SCIENTIFIC SESSION 1

## Scientific Session 1: Aortic, Visceral & Major Venous Intervention

Day: Wednesday 1st November 2017, Time: 10:55 – 11:55, Room: Main Auditorium Hall 1

Chairs: Dr Mo Hamady & Dr Graham Robinson

### 1. LONG TERM COMPLICATIONS AND SEQUELA OF PERCUTANEOUS GROIN ACCESS FOR EVAR

Krit Dwivedi – Sheffield Teaching Hospitals NHS Trust, Mark Regi – Sheffield Teaching Hospitals NHS Trust, Trevor Cleveland – Sheffield Vascular Institute, Doug Turner – Sheffield Teaching Hospitals NHS Trust, Dan Kusuma – Sheffield Teaching Hospitals NHS Trust, Steve Thomas – Sheffield Teaching Hospitals NHS Trust, Stephen Goode – Sheffield Teaching Hospitals NHS Trust

**Aims:** Percutaneous EVAR (PEVAR) has been shown to have high success rates, shorter operating times and length of stay compared to open access. However there exists a lack of long-term follow-up data on these patients and questions remain regarding longer term complications, and benefits for percutaneous groin access. This study aims to assess the long term sequela of PEVAR.

**Material and methods:** 154 consecutive cases over 9 years were analysed. Vessel depth, diameter, extent of calcification, dissection, pseudoaneurysm, and thrombus formation was reviewed at 30 day & latest available follow-up CT. Notes were reviewed for groin infections, haematomas and nerve injury.

**Results:** Mean patient age was 76.1, 87.2% male. Mean time to latest follow-up CT was 31.2 months. Technical success rate was 98.3%. Complications noted were 5 (1.8%) groin haematomas, 2 (0.7%) nerve injuries, 1 (0.3%) groin infection, 12 (4.3%) pseudoaneurysms, 7 (2.5%) dissections, (0.3%) and 1 (0.3%) significant thrombus. Comparing follow-up scans, there was a significant increase in extent of calcification & vessel diameter between the paired 30 day and final follow-up scans. All vascular complications apart from one clinically insignificant pseudoaneurysm resolved without intervention.

**Conclusion:** This study demonstrates PEVAR is safe & effective in the longer term. PEVAR has a low complication rate and accessed vessels do not show stenosis or thrombosis. Pseudoaneurysm, dissections and thrombus appear to gradually resolve without intervention. We would propose a greater uptake and usage of PEVAR and a move away from open access where there are no contraindications.

### 2. INTRODUCING A CATHETER DIRECTED THROMBOLYSIS FOR LIFE-THREATENING ACUTE PULMONARY EMBOLUS

Jules Harvey – St Thomas' Hospital, Irfan Ahmed – St Thomas' Hospital, Narayanan Thulasidasan – St Thomas' Hospital, Narayan Karunanithy – St Thomas' Hospital.

**Aims:** Acute pulmonary embolism is a major cause of morbidity and mortality in hospitalised patients. We instituted a multi-disciplinary Pulmonary Embolism Response Team (PERT) offering ultrasound-augmented catheter directed thrombolysis (US-CDT) at a tertiary NHS hospital. Patients from surrounding hospitals are also accepted. The initial case series results and service improvement suggestions are presented.

**Methods:** Institutional approval was sought. Acute PE patients were classified using European Society of Cardiology 2014 guidelines. US-CDT was deemed suitable for high and intermediate-high risk patients, after PERT discussion. Electronic and paper medical records of all patients treated were searched for details including demographics, thrombolytic dose and duration, short and medium term outcomes.

**Results:** Since 2013, 15 patients were treated with the EKOS US-CDT. 6 females, 9 males, mean age 60 years (range 21-77). 7 patients had high risk PE, 8 has intermediate risk PE. Procedural success was 100%. 1 patient died within 24 hours. 5 patients (33%) died within 30 days. The surviving patients made a good recovery to date. Review of the patients who died showed 2 were already on ECMO for other life threatening disease, 1 had chronic PE, 1 had recent major neurosurgery within 48 hours.

**Conclusion:** Introduction of a regional PERT in a "hub and spoke" model is possible with involvement with respiratory physicians, haematology, ITU and IR. US-CDT has excellent technical success but the case selection pathway can be improved. A strict CDT protocol (dose/duration) following published evidence is required for consistency, along with obligatory long-term patient follow-up.

# ABSTRACTS - SCIENTIFIC SESSION 1

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## 3. ENDOVASCULAR MANAGEMENT OF AORTO-ENTERIC FISTULAS

Alexa Templeton – Southampton University Hospital Trust

**Aims:** Aorto-enteric fistulas are a well recognised late complication of aortic intervention. Herald bleeding is following my massive gastrointestinal haemorrhage and in the majority proves fatal. Patients presenting with this are often elderly and have multiple comorbidities, precluding them from open repair. Fistula exclusion using an aortic stent graft is a potential life prolonging treatment for these individuals, however little is known on mid to long term outcomes. This study aims to assess survival in patients having undergone stenting for aorto-enteric fistula management at a single centre.

**Materials and Methods:** All endovascular aortic stent grafts performed at a single centre between January 2010 and December 2016 were reviewed retrospectively. Stents performed for cases of aorto-enteric fistulas were identified. Data on re-interventions, 30-day and all cause mortality were analysed.

**Results:** Eleven cases were identified. The majority were male (9/11) with a median age of 77 years. 10 cases were secondary fistulas with an average onset of 3 years following previous aortic surgery (43 days – 17 years). Following stent insertion five patients required further intervention, with two undergoing definitive open surgery for fistula management. One patient died within 30-days, with an overall median survival of 3 years (8-2332 days).

**Conclusion:** Endovascular stenting for management of aorto-enteric fistulas is a feasible solution in patients not fit for open surgery. This may be used either as a temporising method prior to definitive repair or as a palliative approach.

## 4. 10 YEAR OUTCOMES OF TRANSJUGULAR INTRAHEPATIC PORTOSYSTEMIC SHUNT TREATMENT FOR BUDD-CHIARI SYNDROME

Lazaros Reppas – Attikon University General Hospital, Athens, Greece, Stavros Spiliopoulos – Attikon University General Hospital, Athens, Greece, Charalampos Lalenis – Attikon University General Hospital, Athens, Greece, Chrysostomos Konstantos – Attikon University General Hospital, Athens, Greece, Konstantinos Palialiexis – Attikon University General Hospital, Athens, Greece, Maria Tsitskari – Attikon University General Hospital, Athens, Greece, Elias Brountzos – Attikon University General Hospital, Athens, Greece.

**Purpose:** To investigate long-term efficacy of transjugular intrahepatic porto-systemic shunt (TIPS) creation for the management of symptomatic Budd Chiari Syndrome (BCS).

**Materials and methods:** This was a retrospective, single-centre study of 27 consecutive patients (17 female; mean age:  $50.8 \pm 15.0$  years) who underwent TIPS, between July 2003 and June 2016, due to symptomatic BCS refractory to anticoagulation therapy. Model for end-stage liver disease (MELD) score, BCS–TIPS prognostic index (BSC–TIPS PI) scores and procedural details were recorded. Primary outcome measure was orthotopic liver transplant (OLT)-free survival. Secondary outcome measures included primary patency (PP) and reintervention-free interval as well as the identification of factors influencing outcomes.

**Results:** Mean time follow-up was  $46.5 \pm 38.7$  months (range 1–139). Mean MELD and BSC–TIPS PI scores were  $13.8 \pm 4.9$  (range 6–25) and  $4.9 \pm 1.3$  (range: 3.25 to 8.48); respectively. According to Kaplan-Meier survival analysis, estimated OLT-free survival rates were 96.3%, 96.3%, 82.5% at 2, 5 and 10 years follow up respectively. PP was 77.4%, 55.3% and 26.3% and reintervention-free interval was 80.4%, 57.4% and 30.8% at 1, 2 and 8 years follow up, respectively. Univariate subgroup analysis demonstrated that stent grafts were correlated with increased survival (HR: 0.0045; 95%CI 0.00003 to 0.701;  $p=0.035$ ) and PP (HR: 0.36; 95%CI 2.503 to 3.053;  $p=0.03$ ).

**Conclusions:** TIPS achieved high long-term OLT-free survival with satisfactory re-intervention rates in patients with symptomatic BCS refractory to anticoagulation. Stent grafts were correlated with increased survival and primary patency rates.



# ABSTRACTS - SCIENTIFIC SESSION 1

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## 5. DOSE REDUCTION STRATEGIES USING HYBRID THEATRE TECHNOLOGY DURING ENDOVASCULAR REPAIR OF ABDOMINAL AORTIC ANEURYSM

Srujana Ganti – Pennine Acute NHS Trust

**Aims:** Radiation protection is a fundamental and legal requirement of all imaging examinations involving ionising radiation. There is continued increase in number of cases with increasing complexity requiring longer radiation time and Digital Subtraction Angiography (DSA) in hybrid environment. Our aim is to increase awareness of a number of dose reduction strategies (DRS) during endovascular repair of aortic aneurysm (EVAR) procedures in hybrid environment without compromising on image quality.

**Materials and Methods:** A pilot study was performed post hybrid theatre installation for first 20 patients which noticed alarming increase in DAP count. Hence DRS were implemented and DAPS were measured subsequently in 50 patients. Various DRS used were : 1. Amendments to automatic exposure protocols. 2. Maximise use of digital zoom instead of magnification. 3. Reduction in angulation during the procedure. 4. Maximise the use of Image Fusion. 5. Reduction in subtraction frame rate from 4 frames per second to 2 frames per second for digital subtraction angiography (DSA). Continued measurement of quality was undertaken by radiation physicist throughout.

**Results:** There was 41% reduction in DAP following implementation of DRS, although, mean screening and operating times were unchanged.

**Conclusion:** Hybrid theatres do not necessarily reduce radiation doses on their own. Almost all of the current hybrid equipment available have a number of dose reduction programmes inbuilt; however it is up-to the operators to exploit them to the best advantage. We have demonstrated how we can implement number of DRS to reduce radiation dose without compromising imaging quality.

## 6. HYBRID VASCULAR SUITES: A NECESSITY OR LUXURIOUS INVESTMENT

Usman Raja – Imperial College Healthcare NHS Trust, Wasim Hakim – Imperial College Healthcare NHS Trust, Mohamad Hamady – Imperial College Healthcare NHS Trust, Erika Kashef – Imperial College Healthcare NHS Trust.

**Aims:** There is currently an increasing trend towards conversion of conventional operating and interventional rooms into hybrid suites for endovascular therapy. Yet there remains a paucity of data to support this enthusiasm. At a time of austerity measures, health system resources must be directed prudently. We present our EVAR outcome data performed within our vascular OR (with C-arm facilities) and IR suite set-up. We hypothesize that comparable outcomes are achievable within this traditional vascular framework.

**Materials and Methods:** We retrospectively reviewed all EVARs performed at our tertiary institution in 2016. Multiple variables pertaining to technical and clinical outcomes as well as radiation safety were evaluated and compared between the vascular OR and IR suite using electronic health records.

**Results:** 71 cases were included over the 12-month study period (mean age 71.58 +/- 11.65 years). 41 procedures were performed in the OR; 30 in the IR suite. Complex fenestrated grafts were preferentially deployed within the IR suite (8/10); emergency cases were predominantly performed within the OR (12/17). Allowing for variations in case types there was no significant difference between the two sites in: 7-day post-operative white cell/CRP levels or rates of pyrexia/positive blood cultures; contrast and radiation dose; screening/procedure time; complications; follow-up endoleaks; re-interventions; or 30-day mortality.

**Conclusion:** Collaborative multidisciplinary triage of patients can facilitate parity in technical and clinical success and adherence to infection control between the two sites despite variation in pathology complexity and imaging capabilities, thereby potentially obviating the need for expensive investment in infrastructures.

# ABSTRACTS - SCIENTIFIC SESSION 2

## Scientific Session 2: Interventional Oncology

Day: Wednesday 1st November 2017, Time: 10:55 – 11:55, Room: Media Suite

Chairs: Dr Dinuke Warakaulle & Dr Damain Mullan

### 7. PERCUTANEOUS IRRERERSIBLE ELECTROPORATION (IRE) OF HEPATIC MALIGNANCY: A BI-INSTITUTIONAL ANALYSIS OF SAFETY AND OUTCOMES

Sebastian Mafeld – Freeman Hospital, Jen-Jou Wong – Royal Liverpool University Hospital,  
Tahira Aslam – Royal Liverpool University Hospital, Nabil Kibriya – Royal Liverpool University Hospital,  
Jonathan Evans – Royal Liverpool University Hospital, Ben Stenberg – Freeman Hospital,  
Derek Manas – Freeman Hospital, Peter Littler – Freeman Hospital.

**Aim:** Irreversible electroporation (IRE) is a non-thermal ablative option in patients unsuitable for standard thermal ablation, due to its potential to preserve collagenous structures (vessels and ducts) and a reduced susceptibility to heat sink effects. In this series from two large tertiary referral hepatobiliary centres, we aim to assess the safety/outcomes of hepatic IRE.

**Materials and Methods:** Bi-Institutional (Liverpool/Newcastle) retrospective, longitudinal follow-up a series. Outcome measures included; procedural safety/effectiveness, time to progression and time to death.

**Results:** Between 2013 and 2017, 52 patients underwent percutaneous IRE of 59 liver tumors in 53 sessions. Tumours treated included primary and secondary malignancy, the majority being hepatocellular carcinoma (HCC) and metastatic colorectal cancer (mCRC). All tumours were deemed unsuitable for thermal ablation. Cases were performed using ultrasound or computed tomography (CT). A complete ablation was achieved in n=44, (75%) of cases with an overall complication rate of 15% (n=8). Of the complete ablation group, median time to progression was 10 months. At 12 months, the percentage that were progression free was 49% (95%CI: 30% to 66%). The data suggests that larger lesion size (>2cm) is associated with shorter time to progression and there is highly significant difference in time to progression between mCRC and HCC. Median survival time was 38 months.

**Conclusion:** This bi-institutional review is the largest UK series of IRE and suggests this ablative technology can be a useful tool, but appears to mainly induce local tumour control rather than cure with HCC having better outcomes than mCRC.

### 8. IMAGE GUIDED IRREVERSIBLE ELECTROPORATION (IRE) OF RENAL TUMOURS: THE EARLY EXPERIENCE AT A REGIONAL CANCER CENTRE

Tze Min Wah – Leeds Cancer Centre, Institute of Oncology, Leeds Teaching Hospitals Trust,  
Christy Ralph – Leeds Cancer Centre, Institute of Oncology, Leeds Teaching Hospitals Trust,  
Jon Cartledge – Leeds Cancer Centre, Institute of Oncology, Leeds Teaching Hospitals Trust,  
Simon Whiteley – Leeds Cancer Centre, Institute of Oncology, Leeds Teaching Hospitals Trust.

**Aims:** to present our early experience of CT-guided IRE of renal tumours at a regional cancer centre.

**Materials and Methods:** This study had approval from the Institutional Review Board. CT-guided IRE under general anaesthesia was performed on 18 renal tumours in 17 patients from 2015-2017. Prospective documentation of the patients' demographic, renal function, treatment details and outcomes were reviewed.

**Results:** Eighteen renal tumours with a mean size of 2.7cm in 17 patients were treated. The patient's age ranged from 48.8 to 81.2 years (mean= 67.1 years). The primary technical success rate with CT-guided IRE was 78%. Four renal tumours had residual disease requiring repeated treatment with CT-guided cryoablation yielding overall successful treatment outcome of 100%. The pre- and post-IRE eGFR were 63.9 +/- SD 18.2 ml/min/1.73m<sup>2</sup> vs. 59.4 +/- SD 17.9 ml/min/1.73m<sup>2</sup> with no significant eGFR change (p=0.46). There is no major complication within the series. There was one minor complication related to contrast extravasation from the pelvi-calyceal system due to the IRE electrode traversing the collecting system during treatment and this was treated with conservative management. One patient died at 4 months post-IRE due to underlying progression of lymphoma. At our early-term follow up, we have no local disease progression or distant metastasis.

**Conclusions:** CT-guided IRE of RCC is safe and offers preservation of renal function for renal tumour sited close to the vital structures with acceptable early treatment outcome. Overall, our early experience suggests CT-guided IRE of RCC has a promising role in the treatment of RCC.

# ABSTRACTS - SCIENTIFIC SESSION 2

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## 9. CRYOABLATION OF BENIGN SOFT TISSUE LESIONS IN CHILDREN: INITIAL EXPERIENCE

Alex Barnacle – Great Ormond Street Hospital for Children, Premal Patel – Great Ormond Street Hospital for Children, Samantha Chippington – Great Ormond Street Hospital for Children, Derek Roebuck – Great Ormond Street Hospital for Children.

**Aims:** Cryoablation is used increasingly commonly for treatment of benign soft tissue lesions in adults. There is little experience of cryoablation in children. Our aim was to evaluate the feasibility of cryoablation for benign soft tissue lesions in children.

**Materials and methods:** Cases were retrospectively reviewed. Data was obtained from a prospectively maintained IR procedural database, RIS records and case-note review. This service was approved by the institution's New Procedures Panel. Institutional review board approval was not required by our institution for this retrospective review. 5 procedures were performed in 4 children (3 male). Median age was 4.5 years (range 1.4 – 11.1) and weight 17.3 kg (range 6.9 – 40). The anatomical location and biopsy-proven diagnoses were: calf fibroadipose vascular anomaly, thigh venous malformation, shoulder microcystic lymphatic malformation and chest wall hamartoma. Treatment indications included pain (n=3), lesion size (n=3), failure to thrive (n=1).

**Results:** Procedures were performed under anaesthesia with ultrasound (n=5) and/or cone-beam CT guidance (n=3), using the SeedNet Gold™ (Galil Medical Inc. MN, USA) ablation system (each time with 3 probes and 2 standard freeze-thaw cycles). Technical success was 100%. In-patient stay was 1-5 days. One patient required intravenous analgesia, fluids and nutrition for 3 days. Pain was resolved in 2/3 and significantly reduced in 1/3. Lesion volume reduced by 69-94% (measured in 2 patients). The patient failing to thrive has gained weight and improved her developmental milestones.

**Conclusion:** Cryoablation is technically feasible for benign soft tissue lesions in children. Initial experience suggests it is well-tolerated and effective.

## 10. OUTCOMES AND EFFICACY OF THERMAL ABLATION OF MALIGNANT RENAL TUMOURS AT A TERTIARY CENTRE

Lizzie O'Mahony – Royal Liverpool University Hospital, Flavius Parvulescu – Royal Liverpool University Hospital.

**Aims:** To evaluate the outcomes, efficacy and safety of percutaneous thermal ablations including radiofrequency ablation (RFA) and microwave ablation (MWA) performed for malignant renal tumours at a tertiary referral centre over a 5 year period.

**Materials and Methods:** Retrospective data collection was performed between January 2012 and November 2016. All cases of renal RFA or MWA were included. Standard follow-up imaging with dual phase renal CT (gadolinium enhanced MRI if contraindications to CT) was performed at 6 weeks and 6 months post-procedure and yearly thereafter. Technical success was defined as no residual disease at 1st follow up scan.

**Results:** 137 ablations performed in 115 patients. Mean age 70 years. A combination of CT (62%) and US (38%) guidance were used. RFA 88% vs. 12% MWA. 113 were primary ablations and 24 repeat ablations. Of the primary ablations, 92 (81%) were a technical success and 13 (12%) had repeat ablation for residual disease. Median follow-up was 30 months (IQR 18-45) with maximum follow-up of 65 months. Of the 92 ablations which were initially successful, 4 (4%) had a local tumour recurrence at a mean 11.9 months after the procedure. All but 10 patients are alive. Nine major complications (7%) and two minor complications (1%) were recorded.

**Conclusion:** Thermal ablation of malignant renal tumours have excellent outcomes with low recurrence rate, good overall survival rate and a low complication rate. Although a small proportion of patients experienced residual disease, the majority of these cases were re-ablated to give an overall success rate of 93%.

# ABSTRACTS - SCIENTIFIC SESSION 2

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## **11. SELECTIVE INTERNAL RADIATION THERAPY (SIRT) WITH YTTRIUM-90 FOLLOWED BY LIVER RESECTION: SAFETY AND OUTCOMES**

Sebastian Charles Mafeld – Freeman Hospital, John Moir – Freeman Hospital, Ralph Jackson – Freeman Hospital, Derek Manas – Freeman Hospital, Jeremy French – Freeman Hospital, Peter Littler – Freeman Hospital.

**Aims:** Selective internal radiotherapy (SIRT) with Yttrium-90 (Y-90) is an intra-arterial therapy for hepatic malignancy in patients who are unsuitable for surgical resection. This treatment is considered palliative, although some patients can demonstrate a response to treatment potentially bridging them to curative surgical resection.

**Methods:** All patients who underwent liver resection post SIRT were reviewed. Data gathered included patient demographics, tumour type, surgical details and post-operative outcomes.

**Results:** 12 patients underwent SIRT followed by liver resection (7 males and 5 females). Pathologies included, hepatocellular carcinoma (n=5), metastatic colorectal cancer (n=5) and neuroendocrine tumour (n=2). Lesional response (size, volume and RECIST) and where possible future liver remnant (FLR) was calculated. Mean FLR increase was 353cm<sup>3</sup> (range 163-909) and all cases demonstrated a partial response according to RECIST with a mean largest lesion volume reduction of 475cm<sup>3</sup> (range 14-1632). No post SIRT complications were noted. Hepatectomy occurred at a mean of 322 days from SIRT treatment. 90 day morbidity was 67% (n=6), complications post surgery were analysed according to the Clavien-Dindo classification scale; a total of 11 events occurred in 6 patients. 90 day mortality of 11% (n=1).

**Conclusion:** In select cases liver resection is possible post SIRT. As this can represent a potentially curative option, it is important to reconsider resection in the follow up of patients undergoing SIRT. Operative morbidity is high, and further studies are needed to improve patient selection. This is the second largest series of its kind in the world and only one from the

## **12. RADIOEMBOLIZATION WITH YTTRIUM-90 FOR ADVANCED HEPATOCELLULAR CARCINOMA: A TEN YEAR CANADIAN EXPERIENCE**

Behnam Shaygi – University of Alberta Hospital, Juliet Emamaullee – University of Alberta Hospital, A Montano-Lozal – University of Alberta Hospital, R Owen – University of Alberta Hospital.

**Aims:** Hepatocellular carcinoma (HCC) ranks among the most common cancers and is one of the leading causes of cancer-related death. Yttrium-90 (Y90)-labeled microspheres (TheraSphere, BTG,UK) administered via the transarterial route allows for a controlled and targeted therapy. In this study we aim to present the efficacy and response to treatment of this treatment based on our one-decade experience in this procedure for the patients with the advanced HCC. We also present an in depth analysis of the patients' imaging as well as clinical outcome and para-clinical results such as liver function.

**Materials and Methods:** We present the retrospective analysis of the imaging studies of the patients with unresectable HCC who underwent radioembolisation between December 2006 and December 2016 in our institution. Response to treatment is assessed using patients' base line, work-up and follow-up imaging. Pre and post treatment liver function, tumor progression and staging, patient survival and clinical outcome and transplant as well as progression free survival has also been recorded.

**Results:** We present the retrospective analysis of our (n=161) patients' imaging investigations who have undergone radioembolization in our institution over a ten-year period. In depth analysis of survival, time to progression, complications, liver function as well as patients being down-staged to surgical resection or transplant will also be presented.

**Conclusion:** In our experience, radioembolisation with Y90 is an effective treatment for unresectable HCC. This procedure is also safe and is not associated with major adverse events; however, careful patient selection and pre-procedural work up is essential for the treatment success.

# ABSTRACTS - SCIENTIFIC SESSION 3

## Scientific session 3: Peripheral Vascular Intervention

Day: Thursday 2nd November 2017, Time: 11:00 – 12:00, Room: Main Auditorium Hall 1

Chairs: Dr Vivek Shrivastava & Dr Ramita Dey

### **13. MID-TERM SINGLE CENTRE EXPERIENCE OF "OFF-LABEL" USE OF VASCUTEK ANACONDA ILIAC LIMB STENT GRAFTS IN THE ENDOVASCULAR REPAIR OF POPLITEAL ARTERY ANEURYSMS (EVPAR).**

Dr Graham Pollock – Royal Derby Hospital, Dr James Kirk – Royal Derby Hospital,  
Dr Peter Bungay – Royal Derby Hospital, Dr Mario DeNunzio – Royal Derby Hospital,  
Dr Tim Rowlands – Royal Derby, Mr Krishna Lingam – Royal Derby Hospital,  
Mr Ashraf Hassouna – Royal Derby Hospital, Mr John Quarmby – Royal Derby Hospital.

**Aims:** To assess the safety and efficacy of using an off-label device in EVPAR.

**Methods:** We retrospectively reviewed our local registry of 14 elective cases since 2008 looking at procedural details, imaging and mid-term clinical follow up.

**Results:** We have treated 14 limbs in 12 patients with an average of 2 years 5 month follow up (Range 2 months to 7 years). Average aneurysm diameter 3.6cm. Average patent run off vessels 2.1. An average of 2 devices, deployed length 220mm and diameter 10-12mm were used. 57% of limbs have been treated percutaneously. There was 100% procedural success, 0% groin complications and 0% 30 day mortality. 1 secondary intervention required at 7 years. 2 patients died during follow up with patent grafts. The primary patency rates at 1 year, 2 years and 3 years are 92%, 82% and 62% respectively. There have been 4 occlusions during follow up at 2, 15, 20 and 84 months despite surveillance. The latter following initially successful secondary intervention to extend the graft distally.

**Conclusion:** Anaconda iliac limbs offer a safe alternative with good patency in comparison to other devices for endovascular repair of popliteal artery aneurysms.

### **14. DRUG ELUTING VERSUS STANDARD BALLOON ANGIOPLASTY FOR INFRAINGUINAL REVASCULARISATION IN CLAUDICATION AND CRITICAL LIMB ISCHAEMIA: THREE YEAR FOLLOW UP DATA.**

Rosemary Cadwallader – University Hospital of South Manchester.

**Aim:** To assess the efficacy at three years of drug eluting balloon (DEB) versus standard angioplasty (PTA) in the management of claudication and critical limb ischaemia secondary to femoropopliteal arterial disease.

**Materials and methods:** A single centre, retrospective study was performed looking at DEB angioplasty in femoropopliteal disease over a consecutive six month period. These were compared with a historical cohort of patients undergoing PTA during a preceding six month period. Primary endpoint was re intervention in the form of angioplasty and stenting, lower limb bypass and amputation.

**Results:** 35 patients underwent standard angioplasty between October 2012 and March 2013 and 60 underwent drug eluting angioplasty between October 2013 and March 2014. Groups demonstrated no difference in age, Rutherford score, cardiovascular risk factors or lesion length (84mm DEB vs 72mm PTA,  $p = 0.29$ ). In the DEB group 16/60 (26.7%) patients underwent further intervention relative to 16/35 (45.7%) in the PTA arm ( $p < 0.01$ ). There was a statistically significant difference in time to intervention of 223 days in the PTA cohort vs 492 days in DEB cohort,  $p=0.014$ .

**Conclusion:** Corresponding to data from the IN.PACT Admiral trial this study has demonstrated drug eluting angioplasty to be an effective treatment for femoropopliteal arterial disease with sustained reduction in need for re intervention which translates to real world practice.



# ABSTRACTS - SCIENTIFIC SESSION 3

## 15. THE EFFECT OF ANTIPLATELET AND WARFARIN THERAPY ON ACCESS SITE PSEUDO-ANEURYSM THROMBIN INJECTION

Dr Jonathan Delf – University Hospitals of Leicester, Dr Syed Mustafa – University Hospitals of Leicester, Dr Neghal Kandiyil – University Hospitals of Leicester, Dr Abdullah Saeed – University Hospitals of Leicester.

**Aims:** Determine the efficacy of thrombin injections for access site pseudo-aneurysm (PsA) management, its causality and location. Evaluate whether pre-procedural antiplatelet and anticoagulant therapy influence treatment outcomes.

**Materials and Methods:** Retrospective analysis of all pseudo-aneurysm cases managed by ultrasound-guided thrombin injection in our institute from February 2011 to April 2017.

**Results:** Total of 103 procedures in 94 patients; median age 72 years (12–89), 59.6% female and 60.6% on regular antiplatelets (35.5% taking ≥2 agents). Median pre-procedural platelets were 230 (43–629) and INR was 1.1 (0.9–8.3). Causative mechanisms for PsA included cardiac (60.6%), vascular (32.9%) and other (6.4%) procedures. Location sites comprised of the common femoral (59.2%), superficial femoral (19.4%), radial (6.4%) and brachial (4.3%) arteries. Average PsA size for patients on Aspirin was 2.91cm (0.6–8.3), Clopidogrel 3.05cm (0.6–8.3) and Warfarin 4.02cm (0.9–7.6). A significant link between increasing PsA sac size and Warfarin (+/- other agents) was found ( $p=0.0488$ ). Mean thrombin treatment dosage was 383 IU and determined individually for patients on Aspirin (369), Clopidogrel (441) and Warfarin (415). Thrombin dosage for therapeutic response correlated directly with increasing PsA sac size ( $p<0.0001$ ). The rate for further thrombin administration (re-intervention) was 9.6%; 55% receiving pre-procedural anticoagulation ( $p=0.0755$ ). 4.8% experienced post-procedural complications and 4.3% required blood transfusions. 30-day mortality was 2.13%.

**Conclusion:** Ultrasound-guided thrombin injections have good technical success in this high-risk patient group. Increasing PsA sac size and thrombin dosage correlate with pre-procedural anticoagulant (Warfarin) regimens. The large proportion of patients on antiplatelet therapy (especially dual agents) may contribute to PsA formation.

## 16. CATHETER-DIRECTED THROMBOLYSIS (CDT) AND/OR MECHANICAL THROMBECTOMY FOR ACUTE ILIOFEMORAL DVT AT A SINGLE CENTRE

Mandela Thyoka – Sheffield Vascular Institute, Mark Regi – Sheffield Teaching Hospitals, Steve Goode – Sheffield Teaching Hospitals, Douglas Turner – Sheffield Teaching Hospitals, Steve Thomas – Sheffield Teaching Hospitals, Trevor Cleveland – Sheffield Teaching Hospitals, Daniel Kusumawidjaja – Sheffield Teaching Hospitals.

**Aims:** Catheter-directed thrombolysis (CDT) and/or mechanical thrombectomy is now established treatment for acute iliofemoral deep vein thrombosis (DVT) and may prevent adverse long-term complications such as post-thrombotic syndrome. We aimed to assess outcomes following CDT at one of the first Trusts in the UK to set up a direct referral from A&E of all acute iliofemoral DVT.

**Materials and Methods:** All Consecutive patients (Jan 2011- May 2017) with acute iliofemoral DVT were retrospectively analysed. Primary outcomes were clot clearance and stent use. Angiojet was used for mechanical thrombectomy first, drip lysis (thrombolysis) in HDU setting in those with poor results, followed by serial lysis check venograms every 12hours until clot resolution. Stent was used in left common iliac vein compression from overlying right common iliac artery (May-Thurner's syndrome) once clot was cleared.

**Results:** Overall, 33 patients, 19 (58%) female, mean age of 35.5 (range 16.6-87.9) years, underwent CDT and/or mechanical thrombectomy. 27 (82%) were performed in emergency setting, 8 (30%) out of hours. 61% ( $n=20$ ) were left-sided DVT and 60% ( $n=20$ ) required at least two procedures. Clot clearance was 60%, 88% at 1st and 2nd thrombectomy respectively. 24% ( $n=8$ ) required angioplasty, 21% ( $n=7$ ) had left iliac stent. No major complication/bleeding. Non-procedural mortality was 11%.

**Conclusion:** CDT and/or mechanical thrombectomy has high clot clearance in acute iliofemoral DVT, the majority needing at least two procedures for clot clearance. One in five cases require stent for May-Thurner's syndrome.



# ABSTRACTS - SCIENTIFIC SESSION 3

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## 17. VENOUS THROMBOLYSIS: A SINGLE CENTRE EXPERIENCE.

Sai Wunnava – Newcastle University, Robin Williams – Freeman Hospital, Gerard Stansby – Freeman Hospital, Ralph Jackson – Freeman Hospital, Peter Littler – Freeman Hospital, Philip Haslam – Freeman Hospital, Sebastian Mafeld – Freeman Hospital, Colin Nice – Freeman Hospital.

**Aims:** To evaluate technical and clinical success, complications and compliance with NICE CG114 for catheter directed thrombolysis (CDT).

**Methods:** Retrospective review in a single unit between 2012 and 2017.

**Results:** 72 patients, 30 men and 42 women, underwent CDT. All were managed through a vascular ward without critical care stay. Technical success was defined as absence of significant residual thrombus. The procedure was successful in 64/72 patients (88.9%). Immediate clinical success was measured at the first outpatient appointment (median of 46 days). 79.2% were asymptomatic or minimally symptomatic, 8.3% had no significant improvement in symptoms and 12.5% didn't attend their appointment or were seen elsewhere. Recurrence occurred in 11 patients (15.3%): 5 of whom were re-admitted. The total number of readmissions was 7 (further two patients readmitted with a subarachnoid haemorrhage and pulmonary embolus (PE)). Major complications occurred in 7 patients (9.72%): bleeding from access point requiring transfusion (1.39%), subarachnoid haemorrhage (1.39%), symptomatic PE (6.94%). Duration of symptoms was available for 48 patients. In total, 44 out of the 48 patients (91.7%) met the NICE guidance. Median duration of the procedure was 48h, Popliteal approach was used in 86.1% of cases. 61.1% of patients underwent chemical thrombolysis and 38.9% underwent mechanical thrombectomy.

**Conclusions:** Ward based CDT has high technical success rates (88.9%) and low major complication rates (9.7%) similar to previously reported studies (literature quotes technical success rates of 86% and major bleeding rates of 1.7 - 11%).

## 18. ASPIREX THROMBECTOMY PROCEDURES IN OCCLUDED RENAL DIALYSIS ACCESS FISTULAE

Simon Lambracos – Epsom & St Helier Trust, Ravindran Karthigan – Epsom & St Helier Trust, Kashif Burney – Epsom & St Helier Trust, Nalin Khosla – Epsom & St Helier Trust, Andrew Keane – Epsom & St Helier Trust, Michael Murray – Epsom & St Helier Trust.

**AIMS:** Mechanical thrombectomy procedures have become an increasingly popular method for treating occluded renal dialysis access fistulae. This retrospective study assessed the success rate and associated complications of the Aspirex device in such patients.

**METHODS:** Data from the renal and radiology units has been compiled for patients that have been treated with thrombectomy procedures between 2014 and 2017. A keyword search on the CV5 renal database was performed to identify the patients. Only patients who were treated with the Aspirex device were included in the study.

**RESULTS:** A total of 47 procedures were analysed for 43 patients (28 men, median age 72). 31 of these were autologous arterio-venous fistulae and 16 synthetic arterio-venous grafts. Primary assisted patency rates were 67%, 53% and 17% after 30, 90 and 365 days respectively with median time to expiry of fistulae post intervention of 45.5 days. Surgical/radiological re-interventions were necessary in 34% of salvaged fistulae. Initial major complications were noted in 7 procedures (15%). These included axillary vein tears, brachial venous rupture, distal embolisation, broken wire, fistula rupture and a mechanical fault.

**CONCLUSION:** The high complication and re-intervention rates, along with the significant financial burden, associated with Aspirex thrombectomy procedures cast considerable doubt over its reliability and effectiveness and make this a potentially unsustainable service in the long term.

# ABSTRACTS - SCIENTIFIC SESSION 4

## Scientific session 4: GI / Hepatobiliary / Genitourinary

Day: Thursday 2nd November 2017, Time: 11:00 – 12:00, Room: Media Suite

Chairs: Dr Tze Min Wah & Dr Robert Stockwell

### 19. RADIOLOGICAL VENTING GASTROSTOMY FOR THE MANAGEMENT OF MALIGNANT BOWEL OBSTRUCTION

Abedi Farhad Syed Abbas Hasan – The Christie Hospital NHS Trust, Dr. Damian Mullan – The Christie Hospital NHS Trust, Dr. Nabil Kibriya – The Royal Liverpool University Hospital NHS Trust, Farooq Ali – Manchester Royal Infirmary, Lynne Wilbraham – The Christie Hospital NHS Trust, Richard Berman – The Christie Hospital NHS Trust, Derek W Edwards – The Christie Hospital NHS Trust, Dr. Hans-Ulrich Laasch – The Christie Hospital NHS Trust.

**Purpose:** To assess technical success, complication profile and clinical outcome of Radiologically Inserted Venting Gastrostomy (RIVG) in the management of malignant bowel obstruction (MBO)

**Materials and Methods:** 63 patients referred for RIVG tubes between 1/1/09 and 12/31/13 were reviewed. Abstracted data included patient demographics, complications, diet tolerated, and survival. This was a registered audit, not requiring patient consent.

**Results:** 63 patients with inoperable MBO had RIVG performed (mean age 60.5 years). All patients had CT-proven malignant bowel obstruction. 68% of patients had ascites and 38% underwent peri-procedural paracentesis. 60/63 patients (95%) had technically successful tube placement (54 gastro-jejunostomy, 6 gastrostomy). 3/60 patients had a failed procedure either due to overlying dilated small bowel precluding safe access or serosal disease limiting gastric insufflation. 85% of patients showed an improvement in oral intake or a reduction in symptoms. The presence of ascites was not obviously associated with increased complications. 1/60 patient sustained a duodenal perforation during tube placement and died as a consequence. 11 patients had one or more of the following minor complications: leakage 5, skin excoriation / infection 5, tube blockage 4, migration of jejunostomy tail into stomach 5.

**Conclusions:** RIVG tube placement is technically feasible with modification of standard technique. Clinical outcome can be variable and RIVG should only be undertaken after careful triage of the patient. There are specific complications due to the underlying disease, which occur more frequently than with feeding gastrostomy. Early referral, detailed pre-procedural counselling and follow-up are important in achieving good outcome.

### 20. WORK IN PROGRESS: EXPLORING THE MOLECULAR MECHANISMS OF NITINOL DEGRADATION LEADING TO FAILURE OF GI STENTS.

Stephen J. Black – MATOM Ltd., Graham C. Smith – University of Chester, Connor J. Weaver – University of Chester, Harriet Ball – University of Chester, Reace Edwards – University of Chester, Derek W. Edwards – The Christie NHS FT, Wasat Mansoor – The Christie NHS FT, Hans-Ulrich Laasch – The Christie NHS FT.

**Aims:** To analyse the chemical processes leading to nitinol corrosion and to evaluate the role of the titanium oxide surface layer and the effect of different surface treatments.

**Materials and Methods:** Oesophageal stents with different surface finishes (oxide layer present, mechanically polished and plasma polished) were immersed in a previously validated simulated gastric environment at body temperature and a pH of 1.2. Wire samples were extracted over 4 weeks, submitted to tensile strength testing and the fractured wires examined using scanning electron microscopy. In parallel, segments of stent braiding were placed in the gastric simulant, examined at the same time points but replaced in the simulant to observe ongoing degradation. The study was laboratory-based, not requiring consent and supported by a BSIR research grant.

**Results:** Interim results at 14 days: Besides expected pit corrosion, rapid development of surface damage suggesting "stress corrosion cracking" possibly due to the previous heat treatment was observed, with different patterns between unpolished and polished stents. Unexpected deposits of carbon and NaCl were found, particularly at wire crossing points, providing areas of accelerated corrosion. It remains to be determined, whether these are a consequence of incomplete polishing or enhanced deposition of pepsin and salt.

**Conclusion:** Preliminary results strongly suggest that the construction of the stent skeleton as well as the type of surface treatment affect the pattern of corrosion and likely the speed of nitinol degradation. If confirmed by the final results (which will be presented), this could have far-reaching consequences for stent design and manufacture.

# ABSTRACTS - SCIENTIFIC SESSION 4

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## **21. SUCCESS RATES OF FORCEPS BILIARY BIOPSY VS. BRUSHING CYTOLOGY AT PTC: A RETROSPECTIVE SINGLE CENTRE ANALYSIS.**

Nikhil Birdi – Freeman Hospital, Newcastle upon Tyne, John Reicher – Freeman Hospital, Newcastle upon Tyne, Sebastian Mafeld – Freeman Hospital, Newcastle upon Tyne, Peter Littler – Freeman Hospital, Newcastle upon Tyne, Ralph Jackson – Freeman Hospital, Newcastle upon Tyne.

**AIMS:** Hilar biliary strictures and strictures beyond the reach of endoscopic ultrasound (EUS) and fine-needle aspirate (FNA) are notoriously difficult to diagnose. The most commonly used technique of biliary brushings via PTC has poor sensitivity and accuracy reported in the literature. We report a comparative audit following the adoption of transluminal biliary forceps biopsy.

**MATERIALS AND METHODS:** We reviewed 25 cases of biliary brushings and 25 cases of forceps biopsies performed during PTC at our centre. The cytology (brushings) and histology (biopsy) reports for each case were assessed, together with the final diagnosis established at surgery, open biopsy or follow-up imaging to determine the sensitivity and accuracy. Complications and costs were reviewed for each technique.

**RESULTS:** The mean age of the forceps biopsy cohort was 68 (16 males, 9 females). Majority of the biopsies (21) were from a hilar stricture and 24/25 patients had a malignant stricture. The mean age of the biliary brushings cohort was 71 (14 males, 11 females). 23/25 biliary brushings patients had a malignant stricture. Sensitivity in the context of a malignant stricture for Biliary Biopsy was 70.8% and Biliary Brushings 43.5%. Diagnostic accuracy of Biliary Biopsy was 72% and Biliary Brushings 44%. There were no additional complications attributed to either technique.

**CONCLUSION:** Biliary biopsy is a more sensitive and accurate method of diagnosing malignant biliary stricture than brush cytology without an apparent compromise in terms of complications. This technique is simple to perform and has replaced biliary brushings as the standard of care in our tertiary centre.

## **22. ELLA-HV ANTI-MIGRATION STENT DEMONSTRATES SUPERIOR PERFORMANCE FOR CANCERS OF THE GASTRO-OESOPHAGEAL JUNCTION.**

Joe Mercer – The Christie NHS Foundation Trust, Pavan Najran – The Christie NHS Foundation Trust, D. W. Edwards – The Christie NHS Foundation Trust, Phil Borg – The Christie NHS Foundation Trust, Damian Mullan – The Christie NHS Foundation Trust, Jon Bell – The Christie NHS Foundation Trust, Hans-Ulrich Laasch – The Christie NHS Foundation Trust.

**Aims:** Stents placed across the gastro-oesophageal junction have an increased risk of distal migration. Migration of an oesophageal stent means recurrent dysphagia, further intervention to retrieve or replace the stent and increased morbidity in a patient group frequently receiving treatment with palliative intent. We re-assess the performance of a dedicated anti-migration design against national data from the registry of oesophageal stenting (ROST).

**Materials and Methods:** The study was classified as an audit and patient consent was waived. All single placements of covered Ella-HV stents across the cardia at a supra-regional cancer centre over a 10 year period were reviewed and radiological follow up recorded. Outcome data were compared with national figures from the ROST 2 registry. All stents were inserted under fluoroscopy. Chi-squared statistical test was employed to calculate the significance of the results.

**Results:** 79 stent procedures were identified. There was 100% success in placing the stent across the GOJ and no reports of failure at 24 hours. Median follow up was 75 days (7-452). 4/79 (5.1%) stents migrated distally (95% CI: 1.6-12.7%), compared with 109/615 (17.7%) stent in ROST 2 registry (95% CI: 14.7-20.7%). Reduced distal migration was observed (5% significance level,  $p = 0.004$ ), with a corresponding reduction in migration rate of 71.4%.

**Conclusions:** The Ella HV stent confers a statistically significant reduction in distal migration compared with stent types recorded in the national registry, reducing the need for re-intervention with associated risks and cost.

# ABSTRACTS - SCIENTIFIC SESSION 4

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## **23. BACTERIAL ISOLATES FROM URINARY CULTURES OBTAINED DURING PERCUTANEOUS GENITOURINARY INTERVENTIONS: ARE WE PRESCRIBING ANTIBIOTICS EFFECTIVELY AND APPROPRIATELY?**

Muhammad Khan – The Christie NHS Foundation Trust.

**Aim:** To identify the commonest pathogens isolated from urinary cultures in patients undergoing percutaneous genitourinary intervention (PGUI) and establish the optimal prophylactic antibiotic regimen.

**Methods and Materials:** All PGUI performed in a supraregional centre between January to June 2017 were retrospectively reviewed as part of an institutional audit (consent therefore not required). Cases without urinary cultures were excluded and available urinary cultures analysed to identify pathogens grown and their respective antibiotic sensitivities.

**Results:** Of 113 PGUI cases performed over the six-month period, 52 (46%) cases had urinary cultures performed. 20 cultures (38.5%) had no bacterial growth. In the 32 (69.4%) positive cultures, Coliform and Enterococci species represented the most common pathogens isolated. The clinical significance of the isolated pathogen was raised in 19 positive cultures (59.4%). In 13 positive cultures, gentamycin and amoxicillin were equally identified to be the most effective antibiotic (n=5, 38.5%) followed by vancomycin (n=4, 30.8%) and nitrofurantoin and ciprofloxacin equally third (n=3, 23.1%).

**Conclusion:** Within our institute, cefuroxime or gentamycin are administered prophylactically prior to PGUI. However, on the basis of the preliminary results the current option of cefuroxime as a prophylactic for GU procedures seems inadequate in our patient group and needs reviewing. Moreover, in 59.4% positive urinary culture cases, the identified pathogen was deemed microbiologically insignificant. With an emerging antibiotic resistance epidemic, our study raises questions for further discussion on the clinical appropriateness and cost-effectiveness of prophylactic antibiotics prior to a PGUI in general.

## **24. CLINICAL BENEFIT OF COLLAGEN TRANSHEPATIC TRACK EMBOLISATION AFTER PERCUTANEOUS BILIARY PROCEDURES (PTC).**

Matthew Hancock – The Christie NHS FT, Damian Mullan – The Christie NHS FT,  
Craig Jobling – Nottingham University Hospitals NHS Trust, Pavan Najran – The Christie NHS FT,  
Philip Borg – The Christie NHS FT, Derek W. Edwards – The Christie NHS FT, Hans-Ulrich Laasch – The Christie NHS FT.

**Aims:** Significant haemorrhage post PTC occurs in 7.9% of cases according to the national registry. Microfibrillar collagen is a cheap and easy way of closing the transhepatic tract, now used routinely in several centres across the UK. We assess the clinical benefit in terms of blood loss, procedural steps and inpatient stay.

**Materials and Methods:** IRB approval was given for off-label use in a supraregional centre in December 2010, this study was classified as a service review for which consent was not required. The results of PTC prior to 2010 were compared to PTC with embolisation over the ensuing seven years. Haemoglobin levels were recorded 1 day before and 1, 3 and 5 days post procedure and the drop compared between the two groups. Inpatient stay and the number of procedure stages were analysed.

**Results:** Out of a total of 229 PTCs 158 (69%) had track embolisation, 71 (31%) were done without. 41 patients were excluded. Single step procedures were performed in 9% of non-embolised cases, rising to 28% after introduction of embolisation. The median 5-day haemoglobin drop without track embolisation was 1.2g/dl reduced to 0.25g/dl if collagen plugging was used. In addition embolisation reduced procedures by 0.4/patient and the mean inpatient time by 1.3 days, the cost of which is being evaluated. No collagen-related complications were reported.

**Conclusion:** Transhepatic track closure enables the use of larger access tracks, resulting in more single-step procedures, as well as reducing post-procedure haemorrhage. There are financial benefits as patients have reduced number of attendances and shorter inpatient stays.

# ABSTRACTS - SCIENTIFIC SESSION 5

## Scientific session 5: Farrago

Day: Friday 3rd November 2017, Time: 10:40 – 11:40, Room: Main Auditorium Hall 1

Chairs: Dr Rubeena Razzaq & Dr Neil Davies

### 25. THE INTERVENTIONAL RADIOLOGY NURSE PRACTITIONER: RATIONALE, ROLE DEVELOPMENT AND OUTCOMES.

Jimmy Kyaw Tun – Barts Health NHS Trust, Mohammed Rashid Akhtar – Barts Health NHS Trust, Angeles Otero Fernandez – Barts Health NHS Trust, Rowena Lastimosa – Barts Health NHS Trust, Ian Renfrew – Barts Health NHS Trust, Tim Fotheringham – Barts Health NHS Trust.

**Aims:** There are a number of recognised challenges in the peri-procedural care of acute inpatients requiring interventional radiological (IR) procedures many of which are experienced in our institute, a large UK tertiary centre. The common root cause is the lack of ward presence by the IR team. The use of nurse practitioners with enhanced roles may provide a solution to some of these problems and has been suggested by both the Royal Colleges of Radiologists and Nursing, UK. The aim of this presentation is to present the rationale, role development and early outcomes following recruitment IR Nurse Practitioners.

**Materials and Methods:** Following an audit that demonstrated a high rate of procedure cancellations for acute inpatients due to poor patient preparation, a successful business case for recruitment of two IR NPs was put forward. Early outcomes and role development of the IR NPs was evaluated.

**Results:** An overall reduction in the proportion of all acute inpatient case delays or cancellations due to poor patient preparation from 64% to 16% in the first three months was observed. The NPs roles developed to include pre-procedural patient consultation, drain management and liaison between ward staff and the IR department.

**Conclusion:** The introduction of IR NPs yielded a demonstrable reduction in procedure cancellation, which has can have positive implications on both quality of care and costs.

### 26. CT GUIDED TRANSFORAMINAL CERVICAL EPIDURAL INJECTION.

Humza Mahmood – Princess Alexandra Hospital.

**Aims:** To assess the immediate, mid-term and long-term outcomes from CT guided cervical transforaminal epidural injections for neck pain and ability.

**Material and Methods:** This is a prospective studying assessing patient response to CT guided cervical transforaminal epidural injections. Patients included in this study are those who have failed conservative management and have been referred for this procedure as part of their normal management. Each patient is interviewed before their procedure, as well as, immediately after, 1 month, 3 months and 12 months after their initial procedure. Consent is obtained from the patients for their participation in the study and for the follow up interviews to be performed via telephone. Responses are measured using the numeric rating scale (NRS) for pain and neck disability index (NDI) for ability.

**Results:** Interim study data demonstrates: NRS: there are statistically significant ( $p < 0.001$ ) reductions between pre-procedural NRS when compared to NRS immediately post procedure, as well as, 1 month, 3 months and 12 months post-procedure. 85.1%, 40.1%, 54.6% and 55.5% respectively. NDI: there are statistically significant ( $p < 0.001$ ) reductions between pre-procedural NDI when compared to NDI 1 month, 3 months and 12 months post-procedure. 37.4%, 55.5% and 56.3% respectively.

**Conclusion:** CT guided cervical transforaminal epidural injections statistically reduces neck pain and improves ability immediately after, as well as, mid to long term post initial procedure.



# ABSTRACTS - SCIENTIFIC SESSION 5

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## **27. THE CONTRIBUTION OF IR TO THE MANAGEMENT OF CHILDREN WITH BUTTON BATTERY INGESTION INJURY.**

Alex Barnacle – Great Ormond Street Hospital for Children, Emma Rose – Great Ormond Street Hospital for Children, Derek Roebuck – Great Ormond Street Hospital for Children, Clare McLaren – Great Ormond Street Hospital for Children.

**Aims:** Button battery ingestion may cause life threatening injuries in children. Management is initially surgical but subsequently, aerodigestive interventional radiology (IR) procedures may be required. Our aim was to document the number, type and outcome of IR interventions in our cohort of patients.

**Materials and methods:** Cases were retrospectively reviewed. Data was obtained from a prospectively-maintained IR database, RIS records and case note review. Institutional review board approval was not required for this retrospective review.

**Results:** 8 children (5 female) presented with button battery ingestion injuries (oesophageal = 4, tracheo-oesophageal fistula = 4) over a 25-month period. Age at presentation: 1-3.3 years (mean 1.6). Weight: 8-14 kg (mean 10.8). Estimated time from ingestion to removal ranged from <12 hours to 18 months. Each child underwent 2-74 subsequent IR procedures (mean 20), including oesophageal dilatation (32), bronchoscopy/bronchography (67), tracheal dilatation (38), bioabsorbable tracheal stenting (8), venous line insertion (4), drain insertion (3), tube oesophagram (4), optical coherence tomography of the airway (1). Two children underwent oesophageal resection and one child eventually required tracheal transplantation. At 0.7 to 26 months from presentation (median 12) outcomes were: cured (n = 3), care transferred (n = 1), improving (n = 2), treatment ongoing (n = 2).

**Conclusion:** Management of button battery ingestion injury is multidisciplinary. Numerous IR procedures may be required to maintain patency of the airway and/or oesophagus, and for supportive care.

## **28. EYE RADIATION MONITORING AND PROTECTION.**

Cha-ney Kim – Hull Royal Infirmary, Vivek Shrivastava – Hull Royal Infirmary.

**Aims:** There are new UK regulations due to be introduced in January 2018 which will result in a greater than seven-fold reduction in the allowable eye lens radiation dose. This is based on the updated understanding that the formation of cataracts may be a result of cumulative dose. A survey of BSIR members was undertaken to assess current practice with regards to eye monitoring, protection and awareness of the upcoming changes in allowable dose.

**Materials/Methods:** A Google-based email survey was circulated to the BSIR mailing list (n=600) and results were compiled using Microsoft Excel®. The survey accepted responses for a period of three weeks (22/3/17 to 12/4/17). Questions were asked to gain an understanding of the current practice of BSIR members.

**Results:** A total of 103 (17%) responses were received. 76% were male, and the majority were exposed to peripheral vascular (85.6%), hepatobiliary (61.5%), and urogenital (63.5%) intervention. Currently 79.8% of respondents wear eye protection with 73.1% stating that they wear it either most, or all of the time. 51% undergo eye-dose monitoring, however 62.5% of those surveyed were not aware of a local policy regarding eye monitoring or protection. 49% were not aware of the new regulations.

**Conclusion:** The new regulations due to be implemented in early 2018 will have significant implications for radiology departments in the UK. Although there is a significant majority of doctors currently using eye protection, the survey has highlighted that approximately half of those surveyed were not undergoing routine monitoring nor aware of the new dose limits.



# ABSTRACTS - SCIENTIFIC SESSION 5

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## 29. WHY WE SHOULD ALL OWN A PLAYSTATION

Ali Alsafi – Imperial College Healthcare NHS, Zaid Alsafi – University College London, Mo Hamady – Imperial College Healthcare NHS.

**Purpose:** Hand-eye coordination affects catheter and wire manipulation in interventional radiology. Playing computer games has also been linked to improved visuo-spatial awareness. We set out to investigate the effect of playing computer games and manual dexterity on catheter-wire manipulation in a mechanical aortic model.

**Material and methods:** Medical student volunteers filled in a pre-procedure questionnaire assessing their exposure to computer games. Their manual dexterity was measured using a smart-phone game. They were then shown a video-clip demonstrating renal artery cannulation and were asked to reproduce this. All attempts were timed. Two-tailed Student t-test was used to compare continuous data, while Fisher's exact test was used for categorical data.

**Results:** Fifty students aged 18–22 took part in the study. 46 completed the task at an average of 168 s (103–301). There was no significant difference in the dexterity score or time to cannulate the renal artery between males and females. Students who played more than 10 hours per week had better dexterity scores than those who did not play computer games: 9.1 s vs 10.2 s ( $p = 0.0237$ ). 4/19 students who did not play computer games failed to complete the task, while all those who played regularly completed the task ( $p = 0.0168$ ).

**Conclusion:** Playing computer games is associated with better manual dexterity and ability to complete a basic IR task for inexperienced operators.

## 30. REAL WORLD IR COSTS - A FIRST NATIONAL MULTICENTRE SURVEY.

Duncan Ettles – Hull Royal Infirmary, Anita Echlin – Hull Royal Infirmary.

**Aims:** Despite improvements and revisions in the national tariff system, concerns remain regarding apparently low levels of reimbursement for some IR procedures. This survey was designed to assess actual costs for several commonly performed procedures and to assess how this information might inform future pricing and reimbursement.

**Materials & Methods:** Nine NHS Trusts (8 English, 1 Scottish) agreed to submit detailed information regarding costs for eleven commonly performed interventional procedures. These included arterial, venous, aortic and nonvascular interventions. Standard proformas were used to list staffing and consumable costs. Based on these responses average, median and ranges of costs were established for each specified intervention and potential causes of variation were analysed. Direct comparison between the data obtained and national tariff was then possible.

**Results:** Staffing costs for designated procedures showed up to twofold between participating units. Day case procedure costs were consistently higher than inpatient episodes. Importantly, significant variation in costs for commonly used consumables were also identified. Inconsistent relationships between actual costs and tariff were seen. Assuming equivalent outcomes, it appears that some units are able to deliver some treatments more cost-effectively.

**Conclusions:** This national survey represents an important first step in relating real world IR costs to current levels of reimbursement within the NHS. Certain inherent study limitations are recognised, but we have established a model that has the potential to be used by IR units across the NHS.

Potential benefits include the standardisation of pricing for high cost consumables and sharing of best-practice models within IR.

# ABSTRACTS - SCIENTIFIC SESSION 6

## Scientific session 6: Embolisation

Day: Friday 3rd November 2017, Time: 10:40 – 11:40, Room: Media Suite

Chairs: Dr Teik Choon See & Dr Steve Thomas

### 31. EXPERIENCE WITH BRONCHIAL ARTERY EMBOLISATION FOR HAEMOPTYSIS IN PATIENTS WITH ASPERGILLOMA

Krishna Prasad Bellam Premnath – Barking Havering Redbridge University Hospitals NHS Trust,

Binu Joy – Rajagiri Hospital, Vijayakumar Raghavendra – Rajagiri Hospital.

**Aim:** To describe our experience with bronchial artery embolization for massive or persistent haemoptysis in patients with aspergilloma.

**Material and Method:** This is a retrospective study where patients with aspergilloma presenting with massive or persistent haemoptysis who were treated over the past 18 months with bronchial artery embolization and followed up in our hospital were reviewed for history, procedure details, complications, and recurrence from the case records.

**Results:** Number of patients treated in the 18 month period was 16. 15 patients had aspergillomas in cavities of tuberculous sequel, and one in a necrobiotic rheumatoid nodule. 14 patients had massive haemoptysis and two had mild but persistent haemoptysis. All patients underwent CT angiography before embolization for bronchial / other systemic culprit artery mapping. All patients had successful attempts of bronchial artery embolization. PVA particles were used in 6 and gelfoam slurry was used in 8 patients. One patient had recurrence after four hours of embolization and was reembolized; gelfoam was the agent used in this case. Three cases had recurrence within six months. All other cases had no recurrence of haemoptysis, and the longest recurrence free period recorded was 16 months. Three patients were cured of aspergilloma after embolization. None of the patients had any complications related to embolization.

**Conclusion:** Aspergillomas can cause recurrence of haemoptysis even after successful satisfactory embolization. Embolization may have a role in disappearance of aspergilloma as has been demonstrated in three of our cases – has never before reported or discussed in literature.

### 32. OUT-OF-HOURS ENDOVASCULAR HAEMORRHAGE CONTROL PROCEDURES IN SCOTLAND IN 2009 AND 2014: CASELOAD, CASEMIX AND 30-DAY MORTALITY.

Neil Young – Ninewells Hospital, Suzy Chin – Ninewells Hospital, Ian Zeally – Ninewells Hospital.

**Aims:** To assess patterns and changes in casemix, caseload and 30-day mortality of out-of-hours endovascular haemorrhage control procedures (OOH EHCPs) undertaken in Scotland between 2009 and 2014.

**Materials and Methods:** Data regarding OOH EHCPs undertaken in the four large Scottish centres providing OOH EHCPs were collected from each centre's RIS. Demographics and aetiology of haemorrhage were gathered. Each case was cross-referenced against a national register of mortality to assess outcome (30-day mortality). Differences in median age and 30-day mortality between 2009 and 2014 were assessed by the Mann-Whitney U test (95% CI) and Chi-squared test, respectively.

**Results:** 93 OOH EHCPs (87 patients) were performed in 2009, rising by 40% to 130 procedures (124 patients) in 2014 ( $p < 0.05$ ). The median age of patients increased from 56 to 65 ( $p < 0.05$ ). The most common bleeding diathesis was upper GI haemorrhage (29 cases in each year). There were increases in the number of cases of spontaneous haemorrhage (4 to 26) and lower GI haemorrhage (2 to 18) but a decline in post-partum haemorrhage cases (8 to 1). The 30-day mortality rate deteriorated from 8.6% to 21.1% ( $p < 0.05$ ).

**Conclusion:** The data reveal a striking increase in the number of OOH EHCPs accompanied by a substantial increase in the median age of patients referred for these procedures. The increases in caseload and 30-day mortality may reflect changing referral patterns based on increased clinician awareness of IR's in haemorrhage control in frail and critically ill patients.

# ABSTRACTS - SCIENTIFIC SESSION 6

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## **33. EMBOZONE VERSUS ONYX EMBOLISATION OF RENAL ANGIOMYOLIPOMA.**

Dr Shahabaz Patil – Queen Elizabeth Hospital, Birmingham, Dr Jehanzeb Qazi – Russells Hall Hospital, Dudley, Birmingham, Dr Ian McCafferty – Queen Elizabeth Hospital, Birmingham.

**AIMS:** Selective arterial embolisation of renal angiomyolipomas (AMLs) was performed using polyvinyl alcohol particles (Embozene) and liquid embolic agent (Onyx). This study was conducted to evaluate the outcome between these two groups.

**MATERIALS AND METHODS:** Retrospective review of 23 patients who underwent embolisation for 43 renal AMLs between February 2009 to November 2016.

**RESULTS:** 10 patients had tuberous sclerosis (TS), 9 patients had Lymphangiomyomatosis (LAM) and 4 patients had a solitary sporadic AML. 44% (n=19) of the tumours were embolised using Embozene; Onyx in 55% (n=22); coils in 1%. Mean follow-up was 42 months. Tumour size decreased from 4-8cm (mean 6.6cm) to 1.5-6.2cm (mean 3.1cm) post Embozene embolisation. Post-Onyx embolisation size decreased from 3.9-11cm (mean 5.5cm) to 1-8.3cm (mean 3.7cm). Serum creatinine pre-embolisation was 57-78mmol/L (mean-65) and post-embolisation was 57-88 mmol/L (mean-71) in patients embolised using Embozene. In the onyx group, pre-embolisation serum creatinine was 51-135 mmol/L (mean-84) and post-embolisation was 55-135mmol/L (mean-87). AML recurrence rate of 2% (n=1), was primarily treated with Embozene and had TS. Non-target embolisation was seen in 90% of patients treated with Embozene with peripheral defects seen on nephrogram at end of the procedure.

**CONCLUSIONS:** Transarterial embolisation using Embozene and Onyx is effective in decreasing the tumour size (by 53% and 33%, respectively) and therefore decreasing the risk of haemorrhage in patients with renal AMLs. Although there was increased trend seen in the serum creatinine in both groups, the levels remained within normal limits. Non-target embolisation was seen in Embozene group and none in the Onyx group.

## **34. ROLE OF PELVIC VENOGRAPHY AND OVARIAN VEIN EMBOLIZATION IN THE TREATMENT OF LOWER LIMB VARICOSITY, A SINGLE CENTRE EXPERIENCE.**

Y Al-Radh – Hull Royal Infirmary, R Lakshminarayan – Hull Royal Infirmary, P Scott – Hull Royal Infirmary.

**Aim:** To assess the effectiveness of ovarian vein embolisation in the treatment of lower limb varicosity secondary to pelvic vein incompetence. We also assessed the sensitivity and specificity of duplex ultrasound in the diagnosis of lower limb varicosity secondary to pelvic venous insufficiency compared to pelvic venography.

**Method:** A search of our database using the term pelvic venography between 2007 and 2017 was performed. The outpatient letters, imaging on PACs and duplex ultrasound reports were reviewed. The results of pelvic venography in diagnosing incompetence were compared to duplex and the efficacy of embolisation in treating the lower limb varicosity was evaluated.

**Results:** 97 patients underwent pelvic venography to investigate pelvic venous insufficiency. 16 patients with symptoms of lower limb varicosity and/or pain had pelvic venography and ovarian vein embolisation of whom 9 (57%) demonstrated positive response (6 (38%) full response and 3 (19%) partial response) and 7 (43%) demonstrated no response. Duplex ultrasound picked up 48 patients with positive findings of pelvic venous insufficiency of which 16 (33%) had positive pelvic venogram and 32 (67%) had negative venogram.

**Conclusion:** Ovarian vein embolisation as a treatment of lower limb varicosity secondary to pelvic venous insufficiency can be effective; however, almost 50% show no improvement in symptoms after treatment. In our experience, US duplex has a poor sensitivity in the diagnosis of pelvic venous incompetence.

# ABSTRACTS - SCIENTIFIC SESSION 6

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## **35. ENDOVASCULAR TREATMENT MODALITIES FOR HAEMORRHAGE CONTROL IN ABNORMAL PLACENTAL IMPLANTATION DELIVERIES: A SYSTEMATIC REVIEW AND META-ANALYSIS.**

Yousef Shahin – University of Sheffield and Sheffield Teaching Hospitals NHS,  
Chun Lap Pang – Plymouth Radiology Academy and Plymouth Hospitals NHS.

**Aims:** To examine the evidence regarding the effectiveness and safety of endovascular treatment modalities for haemorrhage control in deliveries complicated by abnormal placentation.

**Materials and Methods:** Literature was searched from inception to May 2017 on studies that assessed any endovascular technique for abnormal placental deliveries. Primary endpoint was blood loss volume. Secondary endpoints were hysterectomy rate, mean fluoroscopic time, maternal and fetal radiation doses and post-operative complications.

**Results:** 68 studies comprising 1382 patients with a mean (range) age 32.9 (27-39) years were included. Mean gestational age was 35.1 (27-38) weeks, gravidity 3.7 (1-9), parity 2.2 (1-4). 586 (42%) patients had placenta accreta, 248 (18%) increta and 311 (23%) percreta. 457 (33%) of patients underwent prophylactic balloon occlusion of internal iliac arteries (PBOIIA), 460 (33%) abdominal aorta (PBOAA), 181 (13%) uterine artery (PBOUA) and 21 (0.5%) common iliac arteries (POBCIA). 246 (18%) underwent primary embolization of the UA. Mean fluoroscopic time and foetal dose range was (0.08-38) minutes and (0.04-61) mGy, respectively. Mean blood loss volume from all procedures ranged from 586 to 5500 ml with the lowest cumulative mean (95% C.I.) blood loss in patients who underwent PBOAA (865.5; 613.5 to 1117.4) ml. 205 (15%) patients had caesarean hysterectomy of which 50 (3.6%) were planned. Length of hospital stay ranged from (3-23) days. Follow up ranged from (0.5- 42) months.

**Conclusion:** Evidence regarding endovascular management of haemorrhage resulting from abnormal placental deliveries is conflicting. PBOAA was associated with less complications, blood loss and fetal radiation dose.

## **36. GDA EMBOLISATION IN UGI NON VARICEAL BLEED: SINGLE CENTRE EXPERIENCE.**

Alberto Nania – Royal infirmary of Edinburgh, Andrew Walker – Royal Infirmary of Edinburgh,  
Jim Gordon-Smith – Royal Infirmary of Edinburgh, Cristopher Hay – Royal Infirmary of Edinburgh.

**AIM:** Single-centre review of gastroduodenal artery ( GDA) embolisation in the context of non variceal upper gastro-intestinal (UGI) bleed. Reference is made to European society of gastrointestinal endoscopy (ESGE) and NICE guidelines.

**METHODS:** Retrospective analysis using hospital RIS, from August 2012 to May 2017. Gender, age, CT angiography results, previous endoscopy or previous related surgery, cause of bleed, angiographic findings and outcome were recorded.

**RESULTS:** 40 patients underwent GDA embolisation. 22 patients had GDA bleed in context of hepatobiliary pathology such as pancreatitis (17 cases) or malignancy (5 cases). GDA embolisation was performed post iatrogenic bleed following surgery in 8/22 cases. 18/40 patients had upper GI bleed due to duodenal ulcers. All these patients had upper GI endoscopy before angiographic embolisation, which was unsuccessful in 12/18 cases and followed by prompt embolisation. 6/18 patients had a recurrent bleed. In this cohort, a second endoscopy was attempted with no success in 5 cases prior to embolisation, while 1 case only progressed directly to embolisation after the first endoscopy. In terms of outcome, 1 patient had a fatal acute re- bleed within 30 days.

**CONCLUSION:** Our experience conforms to the streamline guidelines of management in non variceal UGI bleed related to duodenal ulcers, whereby UGI endoscopy remains the first line treatment and angiography is recommended in cases of unsuccessful endoscopy or episode of acute relapsing bleed after the second endoscopic attempt. Efficient communication between endoscopist and radiologist is paramount to guarantee the best outcome.

# POSTER LIST - SCIENTIFIC

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SP001153	<b>Opt out scheme for attempted retrieval of temporary inferior vena cava filters</b> Clement Leung, Hull Royal Infirmary
SP001149	<b>Adequacy of written consent forms for IR procedures</b> Felix Gill, Ashford and St Peter's Hospital NHS Trust
SP001147	<b>Time delays in out-of-hours nephrostomy cases: a retrospective study</b> Alexander Kalic, Ashford and St Peter's Hospitals NHS Trust
SP001144	<b>Assessing Risk of Percutaneous Trans-hepatic Biliary Drainage (PTBD): Interim Results From a Multi-Centred Prospective Cohort Study.</b> Andrew Macdonald, Oxford University Hospitals NHS Foundation Trust.
SP001140	<b>A simulated gastric environment to model oesophageal stent corrosion as observed in vivo.</b> Stephen J. Black, MDECON Ltd.
SP001135	<b>Endovascular treatment for complex venous disease</b> Sarim Ather, Oxford University Hospitals
SP001131	<b>Antegrade Ureteric Stent Placement: A Single Centre Review</b> Oliver Cawley, New Cross Hospital
SP001120	<b>Service Evaluation of the Exoseal Â® Vascular Closure Device for Arterial Punctures</b> Mark Maddock, Dudley Group Hospitals NHS Trust
SP001117	<b>Appropriateness of CT cervical-spine requests made from A&amp;E in a trauma setting</b> Mohamed Tofeig, Kettering General Hospital
SP001113	<b>Improved Mortality and Morbidity for Percutaneous Biliary Drainage and Stenting: A Single Centre Retrospective Audit</b> Dr Shian Patel, University Hospital Southampton
SP001112	<b>Endovascular Treatment For Complex Venous Disease</b> Sarim Ather, Oxford University Hospitals
SP001104	<b>Sialograms â€” are they therapeutic regardless of their success rate?</b> Dr Ken-win To, Kettering General Hospital
SP001101	<b>Rectus Sheath Block for Radiologically Inserted Gastrostomy. Its role in reducing post procedural pain.</b> Neil Young, Ninewells Hospital
SP001100	<b>The first interventional radiology training programme in the United Kingdom: set-up, implementation, lessons learnt and translation to other deaneries.</b> Julian Soares, North West School of Radiology
SP001095	<b>Five Year Experience of Thoracic Aortic Injury at â€”</b> Justin Pugh, University Hospitals of North Midlands
SP001094	<b>Vascular closure device review</b> Humza Mahmood, Princess Alexandra Hospital
SP001092	<b>Percutaneous biopsy of renal lesions</b> Humza Mahmood, Princess Alexandra Hospital
SP001088	<b>Re-auditing the diagnostic Accuracy of ultrasound guided liver biopsies, thyroid FNA cytology and complication rates.</b> Idris Badreddine, Hywel Dda University Health Board

# POSTER LIST - SCIENTIFIC

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SP001085	<b>Multi-centre European experience in the use of the Indigo Vacuum-assisted thrombectomy device in acute limb ischemia.</b> Bella Huasen, Preston Royal Hospital
SP001078	<b>Planning Prostate Artery Embolisation: is it vital to perform a pre-procedural CTA?</b> Drew Maclean, University Hospital Southampton
SP001075	<b>Functional Outcome of Carotid Artery Stenting in Patients treated with Mechanical Thrombectomy for acute Stroke</b> Oosama Choudhry, University Hospital North Midlands NHS Trust (Royal Stroke Hospital)
SP001072	<b>Polyhydrophobic Injectable Liquid (PHIL) A Novel Embolic Material for Type II Endoleaks.</b> Zaid Aldin, Princess Alexandra Hospital
SP001070	<b>Regional review of ultrasound/CT guided percutaneous splenic biopsies</b> Tina MacKinnon, Royal Cornwall Hospital
SP001062	<b>Interventional radiology provides a graft preserving option for juxta-anastomotic transplant renal artery pseudoaneurysm.</b> Masood Omar, Leeds Teaching Hospitals
SP001058	<b>Percutaneous angioplasty with stenting of unilateral iliac artery occlusive disease</b> Jenn Haw Fong, Ninewells Hospital and Medical School
SP001057	<b>Accessing portacaths: An opportunistic CT-based audit.</b> Timothy E Murray, Royal College of Surgeons in Ireland
SP001056	<b>Safety and efficacy of percutaneous transcatheter embolization for bleeding benign peptic ulcers</b> Lazaros Reppas, Attiko University General Hospital, Athens, Greece
SP001054	<b>Embolization of type I endoleaks after EVAS: Technical considerations, success rates, and outcomes.</b> Vyzantios Pavlidis, St George's University NHS Foundation Trust
SP001053	<b>Mid-term outcomes of type I endoleak embolizations</b> Vyzantios Pavlidis, St George's University NHS Foundation Trust
SP001052	<b>Monitoring complication rates of fluoroscopy guided oesophageal self-expanding metal stent (SEMS) insertion at a district general hospital in 2015 and 2016</b> Yi Kin Keith Chan, Chesterfield Royal Hospital
SP001045	<b>Brachial and axillary access complications within interventional radiology</b> Matthew O'Brien, Royal Cornwall Hospital
SP001043	<b>Magnetic Resonance Imaging / Ultrasound Fusion Guided Transperineal Prostate Biopsy in Patients without a Rectum</b> Ravjit Singh Sagoo, University Hospitals Coventry and Warwickshire NHS Trust
SP001042	<b>Thrombus Lining in Abdominal EVAR surveillance</b> Cha-ney Kim, Hull Royal Infirmary
SP001041	<b>A prospective assessment of pain relief within a District General Hospital Interventional Radiology department</b> Tze Hung Siah, Ashford and St Peter's NHS foundation trust
SP001038	<b>Adequacy of percutaneous non-targeted liver biopsy when comparing the Biopince and Achieve and biopsy needle.</b> Tom Hall, QMC, Nottingham



# POSTER LIST - SCIENTIFIC

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SP001037	<b>Splenic artery embolisation in blunt trauma; a regional trauma centres 7 year experience.</b> Tom Hall, QMC, Nottingham
SP001035	<b>Catheter Directed Thrombolysis: Our Experience</b> Jonathan Wylie, The Royal Infirmary of Edinburgh
SP001029	<b>Percutaneous management of iatrogenic biliary tract complications</b> Luigi Pancione, Barking Havering & Redbridge University Hospitals NHS Trust
SP001017	<b>Endovascular embolisation for acute gastrointestinal bleeding in elderly patients</b> Luigi Pancione, Barking Havering & Redbridge University Hospitals NHS Trust
SP001014	<b>Lower limb ultrasound for deep vein thrombosis and suitability for catheter directed thrombolysis</b> Jim Zhong, Leeds General Infirmary
SP001007	<b>A retrospective comparative analysis of re-intervention intervals following the use of drug-eluting and standard balloon angioplasty in treatment of arteriovenous dialysis fistula and graft stenoses</b> Samer Al-Ali, The Royal Wolverhampton NHS Trust
SP000996	<b>Does pre-operative MRA reduce dose in uterine artery embolisation?</b> Mark Thomas Macmillan, Royal Infirmary Edinburgh
SP000992	<b>Eyes Doses - Are we ready for 2018?</b> Stephanie Pennington, University Hospital Aintree
SP000982	<b>Early and late CT findings followingÂ gastrostomy</b> Alfred Tan, Queen Elizabeth University Hospital Glasgow
SP000980	<b>From referrals, to consultation to treatment â€” Lessons learned from 1 year of interventional radiology clinics</b> Alfred Tan, Queen Elizabeth University Hospital Glasgow
SP000978	<b>Radiation Exposure during Infra renal Endovascular Aortic Aneurysm Repair</b> Aadil Ahmed, Bedford Hospital
SP000974	<b>A Comparison of Radiation Exposure during Endovascular Aortic Aneurysm Repair with or without Endostapling</b> Aadil Ahmed, Bedford Hospital
SP000969	<b>Colonic stents placement for large bowel obstruction</b> Hiba Abbas, Guys' and st. Thomas NHS Foundation Trust
SP000968	<b>Outcomes followingÂ transjugular intrahepatic portosystemic shunt (TIPS) procedure : A look at survival differences between indications, high MELD score and in/out of hours procedures.</b> Alfred Tan, Queen Elizabeth University Hospital Glasgow
SP000966	<b>Carbon Dioxide Angiography in Iodine Contrast Allergy</b> Hiba Abbas, Guys' and st. Thomas NHS Foundation Trust
SP000963	<b>Percutaneous transluteal embolization of a type II endoleak following internal iliac artery aneurysm repair.</b> Alfred Tan, Queen Elizabeth University Hospital Glasgow
SP000955	<b>Iliac venous stent precise placement using fluoroscopy only in May-Thurner syndrome</b> Raazi Bajwa, Galway University Hospitals, Galway, Ireland

# POSTER LIST - SCIENTIFIC

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SP000953	<b>The role of intravascular ultrasound in lower limb revascularization in patients with peripheral arterial disease.</b> Gregory Makris, Oxford University Hospitals, UK
SP000949	<b>Re-audit of inferior vena cava (IVC) filter retrieval in a large teaching hospital</b> Monika Banerjee, Royal Liverpool University Hospital
SP000948	<b>A Novel Guitar Stent Method for Cerebral Aneurysms</b> Mark Christopher Arokiaraj, Pondicherry Institute of Medical Sciences
SP000946	<b>Knowledge and attitudes towards radiation Protection - a multidisciplinary regional survey</b> Jen-Jou Wong, Royal Liverpool University Hospital
SP000943	<b>Efficacy of embolisation in Gastro-intestinal Bleeding with classification of bleeding severity?</b> Syed Abdur Rahman Mustafa, University Hospitals of Leicester
SP000942	<b>Transplant Renal Artery Angioplasty - A retrospective evaluation of outcomes at a UK Transplant Centre</b> Francis Scott, Addenbrookes Hospital
SP000931	<b>Review of USS/CT guided percutaneous splenic biopsy</b> Tina MacKinnon, Royal Cornwall Hospital NHS Trust
SP000930	<b>Retrospective review of abdominal aortic aneurysm repair using Nellix Endovascular Aneurysm Sealing System (EVAS) in patients unsuitable for EVAR.</b> Amr Moussa, Norfolk and Norwich University Hospital
SP000919	<b>Splenic artery embolisation in blunt splenic injury: is it all it is cracked up to be?</b> Tom Gibson, University Hospital of Southampton Foundation Trust
SP000915	<b>Stock management and waste reduction of biopsy needles.</b> Nicola Spence, Aberdeen Royal Infirmary
SP000909	<b>Stenting the upper/cervical oesophagus with a proximal deployment cervical oesophageal stent: technique and outcomes</b> Amanda Rabone, Maidstone and Tunbridge Wells NHS Trust
SP000904	<b>Do guiding sheaths decrease time to perform fenestrated EVAR?</b> Amir Helmy, Addenbrookes hospital Cambridge
SP000901	<b>Treatment of incompetent perforators in recurrent venous insufficiency with adhesive embolization and sclerotherapy</b> Krishna Prasad Bellam Premnath, Rajagiri Hospital
SP000898	<b>Pain control in the radiology day unit</b> Amir Helmy, Addenbrookes hospital Cambridge
SP000891	<b>Primary Hyperaldosteronism - Utility of Adrenal Venous Sampling in Treatment Planning and Evaluation of Angiographic Anatomy of the Adrenal Veins</b> Joyce Hei Man Cheng, Pamela Youde Nethersole Eastern Hospital
SP000889	<b>Interventional Radiology for GI Bleeding: A 5 year experience</b> Tarryn Carlsson, Southmead Hospital, Bristol
SP000887	<b>Effectiveness of CT-guided drainage of post-operative abdominal collections</b> Madhurima Chetan, University Hospitals Birmingham

# POSTER LIST - SCIENTIFIC

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SP000886	<b>Perceptions and awareness of interventional radiology amongst medical students and junior doctors</b> Sidd Muzumdar, University Of Leeds
SP000884	<b>Radiation dose reduction in the hybrid operating theatre</b> Rosie Cadwallader, University Hospital of South Manchester
SP000881	<b>Mechanical thrombectomy for haemodialysis fistula</b> Adam Aboalkaz, University hospital of wales
SP000869	<b>Combining temperature sensitive liposomes (TSL) with radiofrequency ablation (RFA) for the treatment of hepatocellular carcinoma (HCC).</b> Osama Omrani, Barts and the London School of Medicine and Dentistry
SP000865	<b>The impact of introducing a centralised Nurse-led Image-guided PICC Line Service within the Radiology Department</b> Syed Haydar, London North West Healthcare NHS Trust
SP000863	<b>Audit of patency rates in arteriovenous fistulas following fistuloplasty at Royal Liverpool University Hospital</b> Philip Davie, Royal Liverpool Hospital
SP000862	<b>Audit of patency rates in arteriovenous fistulas following fistuloplasty at Royal Liverpool University Hospital</b> Philip Davie, Royal Liverpool Hospital
SP000847	<b>Patient Radiation Doses in AV Access Interventions: A Comparison between Transradial and Transvenous Approaches</b> Nicholas Teo, Yong Loo Lin School of Medicine

# POSTER LIST - EDUCATIONAL

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EP001146	<b>Novel dual access technique for IVC filter retrieval using TIPPS Rosch-Uchida access set</b> Mohammed Hadi, Oxford University Hospitals
EP001137	<b>Clinical Nurse Specialist in Interventional Radiology</b> Anna Feliciano, Guys & St. Thomas' Hospital NHS Foundation Trust
EP001136	<b>The Penumbra System - A Mechanical thrombectomy Device: Versatility, Examples, Tips and Tricks</b> Mohammed Ahmed, Alain Hospital
EP001124	<b>Transradial access for interventional radiology (IR): tips and tricks learnt at a DGH.</b> Clare Bent, RBCH
EP001111	<b>IR management of extremity trauma</b> Rajeev Ravi, Aintree University Hospital
EP001110	<b>Moving away from "open systems for injectable medications" A mini pictorial review of our unit's experience.</b> Angela Mitchell, Queen Elizabeth University Hospital Glasgow
EP001109	<b>The role of antibiotics in IR</b> Wiliam Rhodri Thomas, University Hospital Cardiff
EP001107	<b>PT or not PT? Everything IRs need to know about coagulation tests and anticoagulant agents</b> Wiliam Rhodri Thomas, University Hospital Cardiff
EP001102	<b>Radiographer and Radiology Nurse Led PICC Line Insertion Service</b> Marie Smith, Ashford and St Peter's Hospitals NHS Foundation Trust
EP001096	<b>Spotting the leak "endoleaks following endovascular aortic aneurysm repair</b> Fiona Lyall, Peninsula Radiology Academy
EP001087	<b>Bilateral popliteal artery entrapment syndrome - a display of clinical imaging</b> Alexander Coupland, Imperial College London
EP001065	<b>Would combined ureteric stent databases safeguard patients?</b> Imran Syed, Basildon and Thurrock University Hospital NHS Trust
EP001047	<b>Guide to multimodality imaging follow up of tumour ablation</b> Jen-Jou Wong, Royal Liverpool University Hospital
EP001039	<b>Learning from an ureteroiliac artery fistula and complicating common iliac artery pseudoaneurysm causing an occlusive thrombus</b> Nadeeka Sirisena, Whipps Cross Hospital, Barts Health NHS Trust
EP001036	<b>The Role of Interventional Radiology in the Management of Splenic Trauma</b> Elfadil Elmahdi, University Hospital Aintree
EP001034	<b>In a spin: a novel method for IVC filter detachment following snare entanglement</b> An Ngo, Royal Liverpool University Hospital
EP001031	<b>MRI assessment of biliary stents. Imaging findings and correlation with Fluoroscopy and CT.</b> Eamon Lagna, Guys' & St Thomas NHS Foundation Trust
EP001030	<b>Interventional Methods of Haemostasis in the Management of Pelvic Haemorrhage in the Trauma Setting</b> Elfadil Elmahdi, University Hospital Aintree

# POSTER LIST - EDUCATIONAL

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EP001028	<b>3D Printing: A Primer for Interventional Radiologists</b> Premal Amrishkumar Patel, Great Ormond Street Hospital for Children
EP001025	<b>Endovascular Management of Visceral Artery Aneurysms and Pseudoaneurysms</b> Christopher Horton, Oxford University
EP001016	<b>Interventional Radiology - Educational Needs</b> Kayleigh Hackett, University of Bradford
EP001002	<b>Comparison of radiation doses from different imaging modalities</b> Dr Michael Murray, Epsom and St Helier NHS trust
EP000995	<b>Novel retrieval method for a foreign body retained in the renal collecting system and management of other complications associated with long term nephrostomies.</b> Shaneil Patel, University Hospitals of Leicester
EP000981	<b>A pictorial case series review on reasons for supra-renal inferior vena cava filter placement.</b> Alfred Tan, Queen Elizabeth University Hospital Glasgow
EP000979	<b>Pseudoaneurysm of a Subsegmental Branch of the Right Pulmonary Artery Following Radiofrequency Ablation of Lung Metastases.</b> Amr Moussa, Norfolk & Norwich University Hospital
EP000971	<b>Retrieval of a tip embedded IVC filter using the Endobronchial Forceps technique</b> Nikhil Patel, Maidstone and Tunbridge Wells NHS Trust
EP000950	<b>Which drug eluting technology used in endovascular treatments produces the best clinical outcomes for patients with peripheral arterial disease of the femoro-popliteal artery?</b> Roger Davison, University of Bradford
EP000947	<b>Ultrasoundâ€“guided trans-perineal prostate biopsy in post-abdominoperineal resection patients</b> Mark Abel, Univeristy Hospitals of North Midlands
EP000939	<b>Image guided management of vascular complications from musculoskeletal procedures.</b> Dr Syed Abdur Rahman Mustafa, University Hospitals of Leicester
EP000918	<b>Fluoroscopic guided transluminal biopsy of the ureter and oesophagus with a biliary biopsy forceps kit</b> Amanda Rabone, Maidstone and Tunbridge Wells NHS Trust
EP000916	<b>Extreme stenting of the GI tract</b> Amanda Rabone, Maidstone and Tunbridge Wells NHS Trust
EP000914	<b>Splenic embolisation in the management of traumatic splenic laceration â€“ In the absence of adequate guidance, are we getting it all wrong?</b> Amanda Isherwood, Hull Royal Infirmary
EP000906	<b>Renovascular Interventions â€“ non atherosclerotic and non stenotic!</b> Can Hazar, The Leeds Teaching Hospitals
EP000907	<b>Renal Artery Interventions - What is the evidence behind it?</b> Can Hazar, The Leeds Teaching Hospitals
EP000900	<b>Pre-ablation trans-arterial Lipiodol staining for difficult-to-treat hepatocellular carcinomas</b> Gaurav Sundar, Aintree University Hospital
EP000892	<b>Retrieval of intravascular foreign bodies: an endovascular fishing trip</b> Laura Cunliffe, Hull York Medical School



# BSIR 2018

## ANNUAL MEETING

**MEETING ANNOUNCEMENT**

**14TH-16TH NOVEMBER 2018**

**BOURNEMOUTH INTERNATIONAL  
CONFERENCE CENTRE,  
BOURNEMOUTH**

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**DEADLINE FOR ABSTRACTS: 20TH JUNE 2018**  
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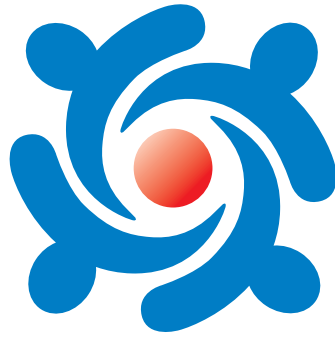
**FOR ALL MEETING & EXHIBITION INFORMATION:**

British Society of Interventional Radiology (BSIR)

63 Lincoln's Inn Fields | London WC2A 3JW

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**20TH & 21ST JUNE 2018**

**Clinical Skills Centre  
Hull Royal Infirmary  
Anlaby Road, Hull, HU3 2JZ**

**For all Inquiries:**

**British Society of Interventional Radiology (BSIR)  
63 Lincoln's Inn Fields, London WC2A 3JW  
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## **THE 4TH BSIR IOUK MEETING**



**16<sup>TH</sup> & 17<sup>TH</sup> MAY 2018**

**INTERNATIONAL CENTRE FOR LIFE  
TIMES SQUARE, NEWCASTLE UPON TYNE, NE1 4EP**

### **FOR ALL INQUIRIES:**

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63 Lincoln's Inn Fields, London WC2A 3JW  
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British Society of  
Interventional  
Radiology



# VASBI

ANNUAL MEETING 2018



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

PORTSMOUTH MARRIOTT HOTEL  
SOUTHAMPTON ROAD, PORTSMOUTH, PO6 4SH

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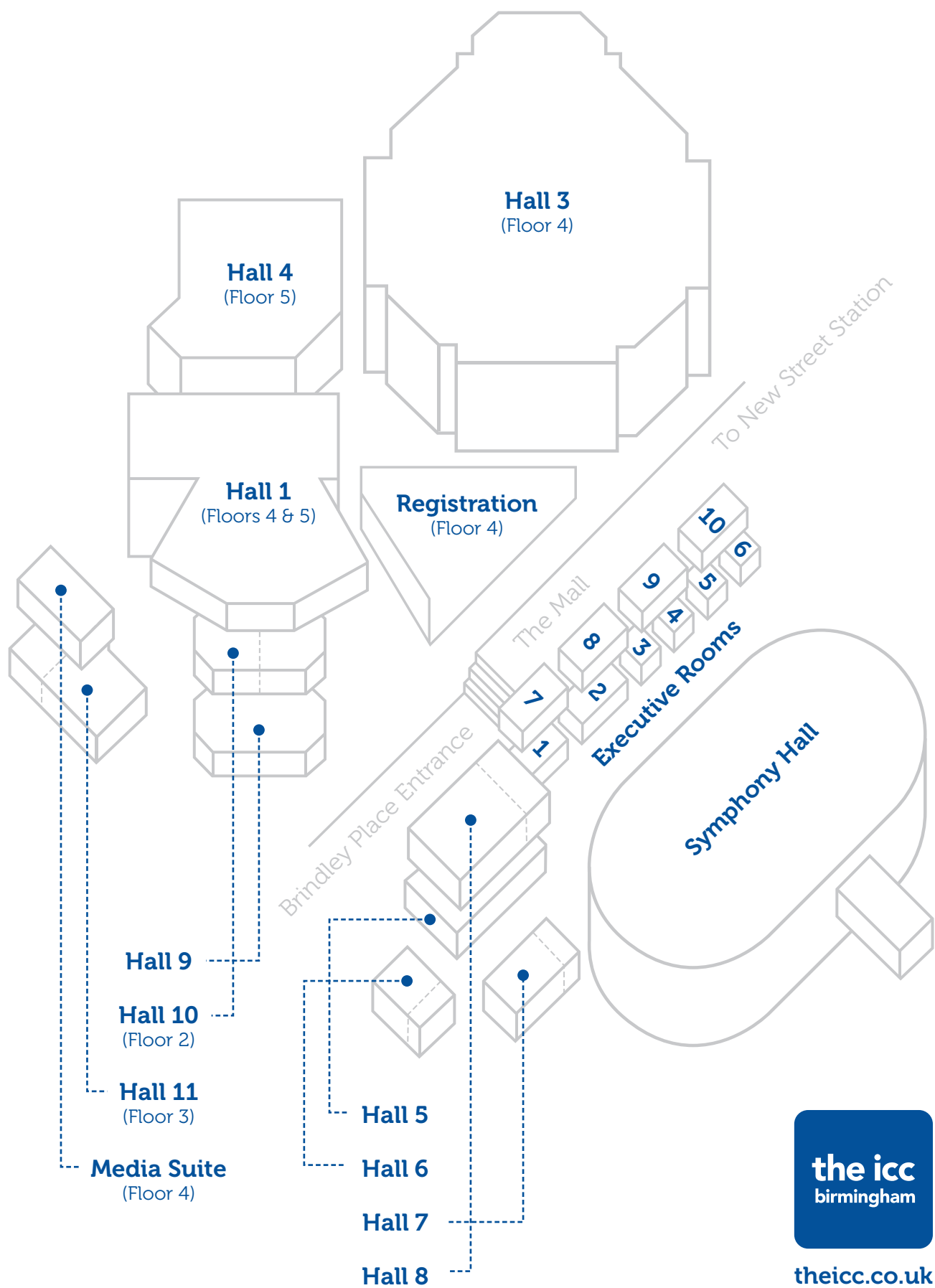


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