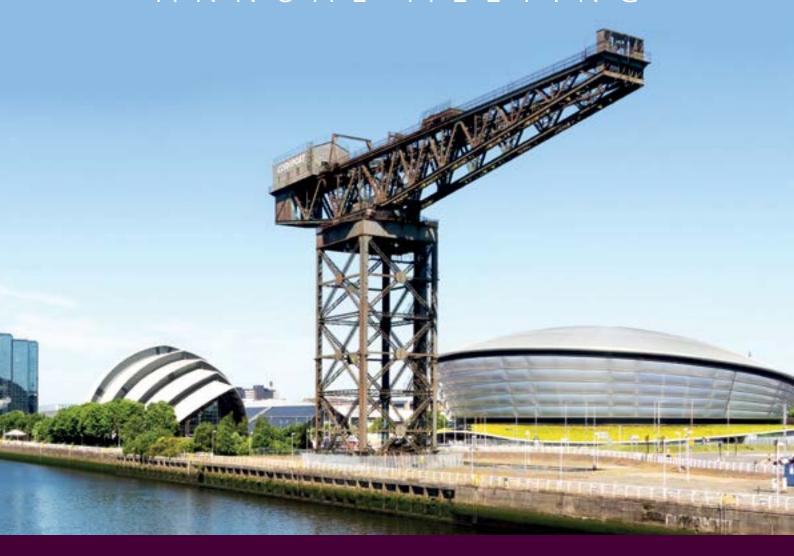
BSIR 2022

ANNUAL MEETING



DELEGATE HANDBOOK

2ND - 4TH NOVEMBER 2022 SEC, GLASGOW



CORPORATE SPONSORS









Medtronic

Engineering the extraordinary



MAJOR SPONSORS







CONTENTS

PAGE	CONTENTS	
4	Welcome to BSIR 2022	
5	General Information	
6-7	Faculty Lists	
9-11	Programme - Day 1	
12	Scientific Sessions 1 & 2	
15-17	Programme - Day 2	
18	Scientific Sessions 3 & 4	
19	Programme - Day 3	
20	Scientific Sessions 5 & 6	
21	BSIRT/BSIR IR Foundation Day Programme	
22-23	Junior Lounge Programme	
24	SIRNR AGM Agenda	
25	Active Learning Zone	
26-27	Programme Learning Objectives	
28-30	Diagnosis to Discharge Series	
31	Master Classes	
32	IR Curriculum	
33	Essay Scholars & Case Studies	
34	Robert Bardsley Educational Fund	
36-39	Poster Lists - Scientific & Educational	
41-59	Abstracts	
60	Sponsors List	
61- 62	Floor Plan & Site Plan	
65-69	2023 Meeting Announcements	

Please visit the BSIR 2022 microsite: **meeting.bsir.org**

WELCOME TO BSIR 2022

Welcome to the British Society of Interventional Radiology (BSIR) Annual Scientific Meeting (ASM) 2022!

We are so excited and glad to have you join us in what we feel is a very exciting programme. Continuing with the hybrid theme of last year, we are hoping to bring you both national and international speakers both in-person and virtually allowing us to hear and learn from key opinions in IR.

New to the BSIR 2022 ASM programme is the Diagnosis-2-Discharge Series where not only do we look at the technical aspects, but also the work-up and follow-up imaging in patients with a special focus on multidisciplinary working.

For the first time, sessions have been assigned learning objectives, so delegates know what to expect when attending each session.



This year, you will notice a special icon next to many of the sessions. This indicates content from the RCR IR curriculum so trainees can get maximum benefit from the programme.

Highlights this year include Back in my day...This is how it was, where legendary IRs share their stories from the good old days. This year's Quiz Pointless IR feature WIIGS and Robbers where the female IRADs face the Rob's in the world of IR.

We feature trauma, aortic and peripheral sessions as well as an exciting interventional oncology program. The ASM favorites are back: Active Learning Zone, Masterclass and industry led sessions where delegates will get hands-on and interactive experience led by experts.

This year's Gold Medal will be awarded to Dr Trevor Cleveland and the Wattie Fletcher lecture will be delivered by Dr Matthew Gibson, who we are also excited to welcome into the Scientific Program Committee.

Returning for her second Graham Plant Lecture, Prof Tze Wah will no doubt wow us again with her knowledge of the world of IR.

And last but by no means least, this programme and ASM would not be possible without the endless dedication, hard work and collaboration of the SPC, industry partners and delegates supporting the BSIR. Huge thank you to you all.

With thanks Dr Elika Kashef Consultant Interventional Radiologist, Imperial College NHS London BSIR Scientific committee Chair



SPC Committees:

Dr Peter Littler - Past Chair
Dr Salil Karkhanis
Dr Conrad Von Stempel
Dr Ahmad Al-rekabi - Junior Rep
Dr Lakshmi Ratnam - co-opted
Dr Shian Patel - co-opted Junior Rep
Dr Phil Haslam - Council Rep

GENERAL INFORMATION

PLEASE READ THIS GENERAL INFORMATION

ASM BADGES:

All BSIR badges have an unique bar code to allow access to programme sessions. You may be scanned to confirm access so please wear these at all times in the SEC. Please see times below. Industry may scan these badges to retrieve registration information. This is your choice.

SOCIAL EVENTS (OUTWITH ASM PROGRAMME):

Wednesday 2nd November 2022 Drinks reception from around 5.15pm-6.45pm, SEC

Hall 1 Lomond Foyer and Keynote Session.

Thursday 3rd November 2022 Ticket only. Please collect tickets at registration on arrival. Subject to availability.

Glasgow Science Centre, 50 Pacific Quay, Glasgow, G51 1EA, 7.30 pm. Additional fee for additional tickets, please speak to registration staff.

MICROSITE:

The BSIR microsite which has up to date programme information can be accessed from your phone, tablet or laptop via your browser **meeting.bsir.org**

IR CURRICULUM:

Parts of the programme are highlighted with the IR Curriculum logo. This indicates that the session may be of interest to IR Juniors.

CPD & EVALUATION:

To collect your CPD and certificate of attendance visit home page **bsir.org** (or meeting section) to evaluate the meeting and receive your CPD .A digital certificate will be generated to your email address. If you are a member it will be stored in your locker. Please check your spam account as often they land there. Available 7th November 2022 via BSIR website - Home page and Meeting Section.

MASTER CLASSES:

Please book Master Classes at registration desk. Please note these are limited to 30 persons but are repeated. Please collect your ticket to access the master class.

LOMOND AUDITORIUM & ALSH ROOMS:

These sessions will be filmed and available to view on the BSIR website in the Educational Learning Zone for members.

AV & SPEAKER PREVIEW:

Room: Etive, SEC

Opening and closing times: 3pm to 6pm Tuesday 1st November 2022

7.45am to 6pm Wednesday 2nd November 2022 8am to 6pm Thursday 3rd November 2022 8am to 2pm Friday 4th November 2022

REGISTRATION:

Room: Hall 1, SEC

Opening and closing times: 3pm to 6pm Tuesday 1st November 2022

7.30am to 6pm Wednesday 2nd November 2022 7.30am to 6pm Thursday 3rd November 2022 8.30 to 4pm Friday 4th November 2022

EMERGENCY CONTACT: 07813 859688

FACULTY LISTS

BSIR FACULTY

Dr Phil Haslam – Freeman Hospital, Newcastle-upon-Tyne **Professor Robert Morgan** – St George's University Hospitals NHS Foundation Trust, London

Dr Peter Littler – Freeman Hospital, Newcastle-upon-Tyne **Dr Clare Bent** – Royal Bournemouth Hospital, Bournemouth

Dr Raman Uberoi - John Radcliffe Hospital, Oxford

Dr Aidan Shaw – Maidstone and Tunbridge Wells Hospitals, Maidstone

Dr Ram Kasthuri – Greater Glasgow & Clyde, Glasgow **Dr Elizabeth O'Grady** – University Hospital Aintree, Liverpool **Dr Jeremy Taylor** – Frimley Park Hospital NHS Foundation Trust, Surrey

Professor Tze Wah – Leeds Teaching Hospitals Trust, Leeds **Dr Ondina Bernstein** – Imperial College Healthcare NHS Trust, London

Dr Peter Kennedy - Belfast Trust, Belfast

Dr Kunal Khanna – Frimley Park Hospital, Camberley **Dr Rosemina Ahmad** – University Hospitals of Leicester, Leicester

Dr Alex Barnacle – Great Ormond Street Hospital for Children, London

Dr Shilpi Pal – Ninewells Hospital, Dundee **Dr Sachin Modi** – University Hospitals Southampton, Southampton

Dr Andrew Winterbottom – Addenbrookes Hospital, Cambridge

Dr Bella Huasen – Preston Royal Hospital, Preston
Dr Raghu Lakshminarayan – Hull Royal Infirmary, Hull
Dr Matthew Gibson – Royal Berkshire Hospital, Berkshire
Dr Raj Das – St George's University Hospitals NHS Foundation
Trust, London

Dr Thoraya Ammar – Kings College Hospital, London **Dr Joo-Young Chun** – St George's Hospital, London

Dr Salil Karkhanis – Queen Elizabeth Hospital, Birmingham

Dr Mark Lewis – Norfolk & Norwich University Hospital

Dr Saira Sayeed - Hull Royal Infirmary, Hull

Dr John Dyet - Retired

Professor Jon Moss – Raigmore Hospital, Inverness **Professor David Allison** – Retired

Dr Teik Choon See – Addenbrooke's Hospital, Cambridge
Dr Jai Patel – Leeds Teaching Hospitals NHS Trust, Leeds
Dr Lakshmi Ratnam – St George's Hospital, London
Dr Tarmer Contacts.

Dr Tarryn Carlsson – Southmead Hospital, North Bristol Trust, Bristol

Dr Paul Crowe – Birmingham Heartlands Hospital, Birmingham

Dr Colin Nice – Freeman Hospital, Newcastle-upon-Tyne **Dr Ganapathy Anantha Krishnan** – Manchester Royal Infirmary, Manchester

Dr Trevor Cleveland – Northern General Hospital, Sheffield **Dr Rob Williams** – The Freeman Hospital, Newcastle-upon-Tyne

Dr Sapna Puppala – Leeds Teaching Hospital, Leeds

Dr Lynn Ling - Hull University Teaching Hospitals, Hull

Dr Jon Bell – The Christie NHS Foundation Trust, Manchester

Dr Georgia Priona – Freeman Hospital, Newcastle-upon-Tyne

Dr Dominic Yu – Royal Free Hospital, London

Dr Rob Jones – Queen Elizabeth Hospital, Birmingham

Dr Hilary White - Musgrove Park Hospital, Taunton

Professor Mark Little - John Radcliffe Hospital, Oxford

Professor Malcolm Johnston – Brighton & Sussex University Hospital Trust, Brighton

Dr Anthie Papadopoulou – The Royal Free London NHS Foundation Trust, London

Dr James Briggs – Royal Berkshire Hospital NHS Foundation Trust, Reading

Dr Charles Tapping - Churchill Hospitals, Oxford

Dr Zaid Aldin - Princess Alexandra Hospital, Essex

Dr Conrad Von Stempel – UCH /Royal Free Hospital, London

Dr Anish Patel - Bradford Royal Infirmary

Mr Jayesh Tailor - BVM Medical, Leicestershire

 $\operatorname{\textbf{Dr}}\operatorname{\textbf{Neil}}\operatorname{\textbf{Gupta}}\operatorname{\textbf{-}}\operatorname{University}\operatorname{\mathsf{Hospitals}}\operatorname{\mathsf{Coventry}} \&$

Warwickshire NHS Trust, Coventry

Dr Andrew Wigham – John Radcliffe Hospital, Oxford **Dr Sammy Rostampour** – Imperial College NHS Trust, London

Dr Rosie Cadwallader – University Hospital South Manchester

Professor Hans-Ulrich Laasch – The Christie, Manchester **Dr Ian McCafferty** - Queen Elizabeth Hospital Birmingham, Birmingham

Dr Raj Bhat - Ninewells Hospital and Medical School, Dundee **Dr Tim Fotheringham** - The Royal London Hospital, Whitechapel

Dr Andrew Shawyer - The Royal Bournemouth Hospital

Dr Nasim Tahir - Leeds Teaching Hospitals, Leeds

Dr Sam Byott - Manchester Royal Infirmary, Manchester

Dr Narayan Karunanithy - Guys & St Thomas' NHS Foundation Trust, London

Dr Raf Patel - John Radcliffe Hospital, Oxford

Dr Nadeem Shaida - Addenbrookes Hospital, Cambridge

Dr Nirmal Kakani - Manchester Royal Infirmary, Manchester

Dr Ramita Dey - Bedford Hospital NHS Trust. Bedford

Dr Lynn Ling - Hull University Teaching Hospitals, Hull

Dr Mona Mossad - University Hospitals of North Midlands, Stoke-on-Trent

Dr Samuel Walker - Queen Elizabeth Hospital Birmingham, Birmingham

Dr Elika Kashef - Imperial College NHS Trust, London **Professor Aghiad Al-Kutoubi** - American University of Beirut, Beirut

Dr Ahmad Al-Rekabi - Imperial NHS trust, London Dr Vivek Shrivastava - Hull Royal Infirmary, Hull Dr Des Alcorn - Gartnavel General Hospital, Glasgow Dr Pav Najran - The Christie NHS foundation Trust, Manchester

Faculty Bios available on the BSIR 2022 microsite: meeting.bsir.org

FACULTY LISTS

BSIR INVITED FACULTY

Dr Rony Avritscher - The University of Texas MD Anderson Cancer Center, Texas

Dr David Kay – Gartnavel Hospital, Glasgow

Dr Paula Novelli - University of Pittsburgh Physicians, Pittsburgh

Dr Julius Chapiro – Yale School of Medicine, Connecticut Professor Maureen Kohi – UNC School of Medicine, North Carolina

Dr Costa Tingerides – Leeds Teaching Hospital NHS Trust, Leeds

Professor Warren Clements – The Alfred Hospital, Melbourne

Dr Morgan McMonagle – Imperial College Healthcare NHS Trust, London

Dr Andrew Gunn – The University of Alabama at Birmingham, Alabama

Mr Arun Pherwani – University Hospitals of North Midlands NHS Trust. Stoke-on-Trent

Mr Mike Jenkins - Imperial College Healthcare NHS Trust, London

Dr Yuk Ting Ma – University Hospitals Birmingham NHS Foundation Trust, Birmingham

Dr Keren Ziv – UCLA Health, California

Dr Katharine Halliday – Nottingham University Hospitals, Nottingham

Mr Derek Edwards - Minnova Medical Foundation

Dr Vassiliki Bravis – Imperial College Healthcare NHS Trust, London

Dr David Patch - Royal Free, London

Professor Alda Tam – University of Texas M.D. Anderson Cancer Center, Texas

Professor Anne Hemmingway - Retired

Mr Andy Shepherd -

Dr Adel Samson – School of Medicine, University of Leeds, Leeds

Dr Damian Mullan – The Christie NHS Foundation Trust, Manchester

Mrs Svetlana Vasileuskaya – The Christie Hospital, Manchester

Dr Sarah O'Shea – Manchester University Hospitals Foundation nhs trust

Dr Kishore Minhas – Great Ormond Street Hospital for Children, London

Dr Chantal Liu -

Dr Tariq Ali – Norfolk and Norwich University Hospital, Norwich

Dr Alex Wickham – Imperial College Healthcare NHS Trust, London

Dr Chris Mullington - Imperial College Healthcare NHS Trust, London

Dr Nazia Khan - President - Society of Anaesthesia and Radiology, London

BSIRT FACULTY

Dr Neil Young - Ninewells Hospital, Dundee **Dr Tim Fotheringham** - The Royal London Hospital, Whitechapel

Dr. Alison Graham - Hammersmith Hospital, London **Dr Kishore Minhas** - Great Ormond Street Hospital for Children, London

Dr. Peter Douglas - Queen Elizabeth University Hospital, Glasgow

Dr. Martin Hennessy - Queen Elizabeth University Hospital, Glasgow

Dr. Bhavna Pitrola - St Mary's hospital, London

Dr Neil Gupta - University Hospitals Coventry & Warwickshire NHS Trust, Coventry

Dr Ganesh Vigneswaran - Southampton General Hospital, Southampton

Dr Ian MacCafferty - Queen Elizabeth Hospital Birmingham, Birmingham

Dr. Ahmad Al-Rekabi - Imperial NHS trust, London **Dr. Shian Patel** - University Hospital Southampton, Southampton

Dr. Drew Maclean - University Hospital Southampton, Southampton

SIRNR FACULTY

Dr Neil Gupta – University Hospitals Coventry & Warwickshire NHS Trust, Coventry

Mrs Yossi Sahin – University Hospital Coventry & Warwickshire, Coventry

Mrs Amy Dixon - St James' Hospital, Leeds

Dr Alex Wickham – Imperial College Healthcare NHS Trust, London **Rebecca Sandys** –

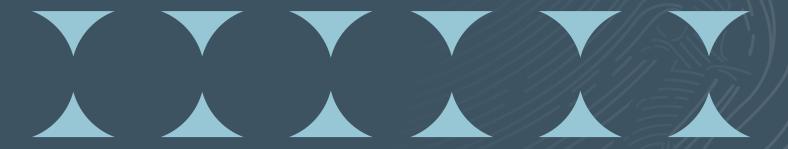
Mrs Claire Maxim – University Hospitals of Leicester, Leicester

Mrs Lauren Carr – Sunderland Royal, Sunderland

Faculty Bios available on the BSIR 2022 microsite: meeting.bsir.org

TERUMO AORTIC INVITES YOU TO

Early Experience with Fenestrated TREO® and the TREO® Platform



PRESENTED BY

Dr Peter Bungay • Royal Derby Hospital **Wednesday 2nd November** • 10.45-11.15 in Hall 2 Auditorium Demonstration Deployment available

Discover aortic solutions terumoaortic.com



DAY 1 - WEDNESDAY 2ND NOVEMBER 2022

TIME	SESSION & TOPIC	CHAIRS*/SPEAKERS
08:30-08:45	Welcome and Introduction (Lomond Auditorium)	Dr Phil Haslam
08:45-09:45	 What's Up Doc? (Lomond Auditorium) What's Up Doc? Vascular What's Up Doc? IO What's Up Doc? Non-Vascular What's Up Doc? Non-Clinical World of IR 	Professor Robert Morgan Dr Peter Littler Dr Clare Bent Dr Raman Uberoi
09:30-12:30	Active Learning Zone (Hall 1) Please See Page 25 For Full List of Learning Zone Sessions: Vascular and Non-Vascular Will Run Both Days	
09:45-10:45	PARALLEL SESSIONS	
09:45-10:45	 Diagnosis to Discharge Series 1 - Gastrointestinal (Lomond Auditorium) Management of Upper GI Bleed Management of Lower GI Bleed Haemorrhoid/Emborrhoid Embolisation Upper GI Stenting 	Dr Aidan Shaw* & Dr Ram Kasthuri* Dr Elizabeth O'Grady Dr Jeremy Taylor Dr Clare Bent Dr Aidan Shaw
09:45-10:45	 Diagnosis to Discharge Series 2 - Liver Cancer Interventions (Alsh) When to Ablate? How to Ablate? How do you Measure Success Post Ablation? Embolisation and Ablation 	Dr Rony Avritscher* & Professor Tze Wah* Dr David Kay Dr Ondina Bernstein Dr Peter Kennedy Dr Rony Avritscher
09:45-10:45	Masterclass 5A - Governance and Safety in IR (Carron 1 & 2)	Dr Matthew Gibson Dr James Briggs Dr Raj Das Dr Phil Haslam Dr Costa Tingerides
09:45-10:45	Masterclass 3A - Paediatric IR for the Adult IR (Dochart 1 & 2)	Dr Kishore Minhas Dr Nasim Tahir Dr Sam Byott Dr Narayan Karunanithy Dr Chantal Liu Dr Jai Patel
10:45-11:00	REFRESHMENT BREAK Exhibition and Posters (Hall 1 & 2)	
10:45-11:15	Terumo Aortic (Hall 2 - Auditorium) Dr Peter Bungay Discusses Early experience with Fenestrated Treo and the Treo platform.	Dr Peter Bungay
11:00-12:00	PARALLEL SESSIONS	
11:00-12:00	 WIIGS Meets WIR: Myth Busting (Lomond Auditorium) Myth Buster 1 - "Women are too emotional" Myth Buster 2 - "Women are too detail oriented" Myth Buster 3 - "Women are more likely to go part time" Q&A 	Dr Kunal Khanna* & Dr Rosemina Ahmad* Dr Alex Barnacle Dr Shilpi Pal Dr Paula Novelli

DAY 1 - WEDNESDAY 2ND NOVEMBER 2022

TIME	SESSION & TOPIC	CHAIRS*/SPEAKERS
11:00-12:00	 Research Update in IO (Alsh) Bead Size and Hypoxic Stress in Rat Models Translational Research in Combination Therapy- Interventional Oncology + Immuno-Oncology Basic and Translational Research - Is it for IR? Chemosaturation 	Dr Salil Karkhanis* & Dr Conrad von Stempel* Dr Rony Avritscher Dr Adel Samson Dr Julius Chapiro Dr Sachin Modi
12:00-12:30	Graham Plant Lecture (Lomond Auditorium) How to Create a Sustainable Interventional Oncology Service For The Future?	Professor Tze Wah
12:30-14:00	INDUSTRY SESSIONS, LUNCH, EXHIBITION & POSTERS (Hall 1 & 2)	
12:30-13:00	Medtronic (Alsh) Setting Up an Acute DVT Service	Dr Andrew Wigham
13:00-13:30	Guerbet - Controversies in Men's Health (Lomond Auditorium)	Dr Clare Bent* Dr Tim Bryant Dr Tarun Sabharwal Dr Sachin Modi Dr Romaric Laffroy
13:30-14:00	ShockWave - The curious case of calcium it's time to rethink our strategy in PAD treatment! (Hall 2 - Auditorium. Lunch and drinks will be served)	Dr Raghu Lakshminarayan* Dr Bella Huasen Dr Raf Patel Dr Symeon Lechareas
14:00-15:00	PARALLEL SESSIONS	
14:00-15:00	 Diagnosis to Discharge Series 3 - PAD (Lomond Auditorium) Imaging of PAD: Doppler, CTA or MRA? IR Management of the Claudicant - POBA vs DEB/DES Diversity in PAD How do you Measure Success in PAD? 	Dr Kunal Khanna* & Dr Andrew Winterbottom* Dr Raf Patel Dr Bella Huasen Professor Maureen Kohi Dr Raghu Laksminarayan
14:00-15:00	 Governance and Safety in IR (Boisdale) How to Run a Safe IR Department? Coagulation Factors: Do They Matter? Contrast Allergy in the IR Department Safe Sedation in IR 	DrCosta Tingerides * & Dr Matthew Gibson* Dr Costa Tingerides Dr Raj Das Dr Rosie Cadwallader Professor Hans-Ulrich Laasch
14:00-15:00	Masterclass 6A - Aortic Interventions (Dochart 1 & 2)	Dr Ganapathy Anantha Krishnan Dr Nadeem Shaida Dr Nirmal Kakani Dr Raj Bhat Dr Ramita Dey Dr Tariq Ali
14:00-15:00	Masterclass 2A - Interventional Oncology (Dochart 1 & 2)	Dr Andrew Gunn Dr Rony Avritscher Dr Lynn Ling Dr Mona Mossad Dr Aidan Shaw Dr Samuel Walker

DAY 1 - WEDNESDAY 2ND NOVEMBER 2022

TIME	SESSION & TOPIC	CHAIRS*/SPEAKERS
14:00-16:00	 SIRNR Symposium (Alsh) Delegated Consent in IR with Q&A Advancing Nurse Practice in IR with Q&A The Development of a Radiographer Led Urology Fluoroscopy Service With Q&A Nurse Administered Sedation in IR with Q&A "Should I Stay or Should I Go?" - Managing Radiation Protection in IR With Q&A Safety in Numbers with Q&A 	Lauren Carr* Dr Neil Gupta Ms Yossi Sahin Ms Amy Dixon Dr Alex Wickham Ms Rebecca Sandys Ms Claire Maxim
15:00-16:00	PARALLEL SESSIONS	
15:00-16:00	 Diagnosis to Discharge Series 4 - Trauma IR (Lomond Auditorium) IVC Filters in trauma - Where is the Evidence? Hepatic Trauma - When to Intervene BSIR DEBATE - Splenic Trauma: Embolisation is Best for the Patient BSIR DEBATE - Splenic Trauma: Splenectomy is Best for the Patient 	Dr Thoraya Ammar* & Dr Shilpi Pal* Dr Joo-Young Chun Dr Shilpi Pal Professor Warren Clements Dr Morgan McMonagle
15:00-16:00 CORRICULUS	 Diagnosis to Discharge Series 5 - Renal Tumours (Boisdale) When to Treat Renal Tumours How to Kill the Tumour: Thermal vs Non-Thermal Embolization How Do You Measure Success? 	Dr Phil Haslam* & Dr Neil Gupta* Dr Salil Karkhanis Professor Tze Wah Dr Andrew Gunn Dr Mark Lewis
15:00-16:00	Masterclass 3B - Paediatric IR for the Adult IR (Carron 1 & 2)	Dr Kishore Minhas Dr Nasim Tahir Dr Sam Byott Dr Narayan Karunanithy Dr Chantal Liu Dr Jai Patel
15:00-16:00	Masterclass 6B - Aortic Interventions (Dochart 1 & 2)	Dr Ganapathy Anantha Krishnan Dr Nadeem Shaida Dr Nirmal Kakani Dr Raj Bhat Dr Ramita Dey Dr Tariq Ali
16:00-16:30	REFRESHMENT BREAK Exhibition and Posters (Hall 1 & 2)	
16:30-17:30	PARALLEL SESSIONS	
16:30-17:30	Scientific Session 1 - Peripheral and Visceral Vascular (Lomond Auditorium) Please see page 12 for timetable	Dr Saira Sayeed* & Dr Elika Kashef*
16:30-17:30	Scientific Session 2 - Interventional Oncology (Alsh) Please see page 12 for timetable	Dr Peter Littler* & Professor Tze Wah*
17:30-19:00	Keynote Session - Back In My DayThis Is How It Was (Lomond Auditorium)	Dr Phil Haslam*, Mr Jayesh Tailor* & Dr Ian McCafferty* Professor Robert Morgan Dr John Dyet Professor Jon Moss Professor Anne Hemmingway Professor David Allison Professor Aghiad Al-Kutoubi
17:30-19:00	KEYNOTE WELCOME DRINKS (Hall 1 & 2)	

SCIENTIFIC SESSIONS 1 & 2

Scientific Session 1: Peripheral & Visceral Vascular

Wednesday 2nd November 2022, 16:30-17:30, Lomond Auditorium. Session Chairs: Dr Saira Sayeed and Dr Elika Kashef Full Abstracts can be viewed on pages 41-43

ORDER: TITLE & SPEAKER

1 BioMimics 3D Stent - Single centre real-world experience

Scott Griffiths

2 Eligibility of common femoral artery atherosclerotic disease for endovascular treatment – the confess study Gabriela Kaneta

Factors influencing long term outcomes for endovascular revascularisation in patients with chronic mesenteric ischaemia.

Alaaeldin Ginawi

4 Jetstream Atherectomy for the treatment of Femoropopliteal artery disease, single centre experience and short-term outcomes.

Alaaeldin Ginawi

Peripheral nerve block and local anaesthesia versus local anaesthesia alone for lower limb angioplasty - a retrospective review.

Conrad von Stempel

6 Non-surgical endovascular approach in thrombosed dialysis accesses

Dr Maaz Khan

Scientific Session 2: Interventional Oncology

Wednesday 2nd November 2022, 16:30-17:30, Alsh. Session Chairs: Dr Peter Littler and Professor Tze Wah
Full Abstracts can be viewed on pages 44-46

ORDER: TITLE & SPEAKER

Percutaneous Radiofrequency Ablation for Hepatocellular Carcinoma: A Single Centre 9-year Retrospective Cohort Study in 112 Patients

Yiwang Xu

2 Safety and efficacy of thermal ablation for malignant lung lesions; retrospective case series analysis of the South Wales lung ablation service.

Gill Warwick

Prognostic value of Neutrophil to lymphocyte ratio (NLR) and platelet to lymphocyte ratio (PLR) for small renal cell carcinomas (RCC) after image-guided cryoablation or radio-frequency ablation (RFA)

Vinson Wai-Shun Chan

4 Use of renal tumour biopsy prior to nephrectomy - An analysis of the British Association of Urological Surgeons Nephrectomy Outcome Data from 2012-2019

Vinson Wai-Shun Chan

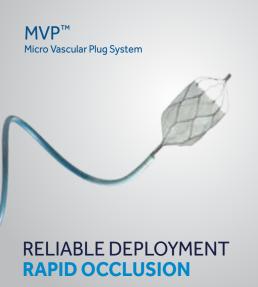
Oncological and peri-operative outcomes of cryoablation of renal cell carcinoma for patients with hereditary RCC diseases - An analysis of European multinational prospective EuRECA registry

Vinson Wai-Shun Chan

Full abstracts available on BSIR microsite **meeting.bsir.org** and in pages 41-59 of the Delegate Handbook

YOUR PARTNER FOR EMBOLIZATION SOLUTIONS









 $\begin{array}{c} \textbf{Concerto}^{^{\text{TM}}} \\ \textbf{Helix Detachable Coil System} \end{array}$



CONTROLLED PRECISION RELIABLY DELIVERED





Penumbra Symposium

Changing the Paradigm of Arterial and Venous Clot Removal with the Indigo™ System Lightning™ Intelligent Aspiration

Thursday, November 3, 2022 · 12:30–13:00 GMT Boisdale Room, SEC

How I Use Intelligent Aspiration to Manage Venous Thrombosis



Dr. Andrew WighamJohn Radcliffe Hospital, Oxford, UK

Mechanical Thrombectomy with Lightning 7 in the Management of ALI



Dr. Raghu LakshminarayanHull University Teaching Hospitals, Hull, UK

Join Our Workshop to Learn More About Lightning 12 and 7 Technology

Immediately Following the Symposium 13:00–13:30 GMT · Boisdale Room. SEC



DAY 2 - THURSDAY 3RD NOVEMBER 2022

TIME	SESSION & TOPIC	CHAIRS*/SPEAKERS
08:00-09:00	PARALLEL SESSIONS	
08:00-09:00	Masterclass 1A - PAD (Carron 1 & 2)	Dr Raghu Laksminarayan Dr Raman Uberoi Dr Bella Huasen Dr Lakshmi Ratnam Dr Elika Kashef Dr Ram Kasthuri
08:00-09:00	Masterclass 5B - Governance and Safety in IR (Dochart 1 & 2)	Dr Matthew Gibson Dr James Briggs Dr Raj Das Dr Phil Haslam Dr Costa Tingerides
08:00-09:00	 Diagnosis to Discharge Series 6 - Benign HPB (Alsh) Benign HPB - When to Intervene Benign vs Malignant PTC Biliary Cholangioscopy Embolisation of Non-Malignant Tumours Liver 	Dr Paula Novelli* & Dr Elizabeth O'Grady* Dr Teik Choon See Dr Aidan Shaw Dr Clare Bent Dr Paula Novelli
08:00-09:00	 Diagnosis to Discharge Series 7 - Renal Interventions (Lomond Auditorium) PCNL: Tips and Tricks Renal Artery Stenting - Where is the Evidence? Transplant Renal Artery: How Aggressive Should You Be? Central Venous Occlusion for Dialysis 	Dr Raj Bhat* & Dr Thoraya Ammar* Dr Phil Haslam Dr Saira Sayeed Dr Jai Patel Dr Rob Jones
09:00-10:00	PARALLEL SESSIONS	
09:00-10:00	Masterclass 2B - Interventional Oncology (Carron 1 & 2)	Dr Andrew Gunn Dr Rony Avritscher Dr Lynn Ling Dr Mona Mossad Dr Aidan Shaw Dr Samuel Walker
09:00-10:00	Masterclass 4A - Nerve Blocks and Sedation in IR (Dochart 1 & 2)	Dr Alex Wickham Dr Chris Mullington Dr Nazia Khan Dr Conrad von Stempel
09:00-10:00	 Women's Health (Lomond Auditorium) UFE: Does Size Matter? How Do you Measure UFE Success? Pelvic Congestion Embolization Obstetric Emergencies - IR to the Rescue 	Dr Lakshmi Ratnam* & Dr Sachin Modi* Dr Tarryn Carlsson Dr Paul Crowe Dr Joo-Young Chun Dr Colin Nice
09:00-10:00	 Diagnosis to Discharge Series 8 - Aortic Disease (Alsh) EVAR: Is the UK falling behind? The Challenging Proximal Neck in EVAR How do you Measure Success on Follow Up Imaging? NVR: The Good, The Bad and The Ugly 	Dr Thoraya Ammar* & Dr Bella Huasen* Dr Raghu Laksminarayan Dr Thoraya Ammar Dr Andrew Winterbottom Mr Arun Pherwani
09:30-12:30	Active Learning Zone (Hall 1) Please See Page 25 For Full List of Learning Zone Sessions: Vascular and Non-Vascular Will Run Both Days	

DAY 2 - THURSDAY 3RD NOVEMBER 2022

TIME	SESSION & TOPIC	CHAIRS*/SPEAKERS
10:00-10:30	REFRESHMENT BREAK Exhibition and Posters (Hall 1 & 2)	
10:30-11:30	PARALLEL SESSIONS	
10:30-11:30	 Diagnosis to Discharge Series 9 - Acute Aortic Syndromes (Lomond Auditorium) Understanding Acute Aortic Syndromes When to Intervene in Acute Aortic Dissections How do you Measure Success Post TEVAR? Spinal Ischaemia in TEVAR 	Dr Ondina Bernstein* & Dr Ganapathy Anantha Krishnan* Dr Trevor Cleveland Dr Rob Williams Dr Sapna Puppala Mr Mike Jenkins
10:30-11:30	 Diagnosis to Discharge Series 10 - Liver Cancer Interventions Part 2 (Alsh) Venous Deprivation - When and How SIRT - (Y90) - When and How Hot or Not? Immune Therapy in HCC Hot Topic in Liver IO 	Dr Paula Novelli* & Dr Lynn Ling* Dr Peter Littler Dr Jon Bell Dr Yuk Ting Ma Dr Rony Avritscher
10:30-11:30	Masterclass 4B - Nerve Blocks and Sedation in IR (Dochart 1 & 2)	Dr Alex Wickham Dr Chris Mullington Dr Nazia Khan Dr Conrad von Stempel
10:30-11:30	Masterclass 1B - PAD (Carron 1 & 2)	Dr Raghu Laksminarayan Dr Raman Uberoi Dr Bella Huasen Dr Lakshmi Ratnam Dr Elika Kashef Dr Ram Kasthuri
11:30-12:00	Our Workplace Culture: Why Does It Matter? (Lomond Auditorium)	Dr Keren Ziv* & Dr Lakshmi Ratnam'
12:00-12:30	RCR President: IR in 2030: RCRs Vision (Lomond Auditorium)	Dr Katharine Halliday
12:30-14:00	INDUSTRY SESSIONS, LUNCH, EXHIBITION & POSTERS (Hall 1&2)	
12:30-13:00	PARALLEL SESSIONS	
12:30-13:30	Penumbra - Symposium & Workshop (Boisdale - Lunch will be served) Changing the paradigm of arterial & venous clot removal with the Indigo System - Lightning Intelligent Aspiration • How I use intelligent aspiration to manage venous thrombosis • Mechanical Thrombectomy with Lightning 7 in the management of ALI	Dr Andrew Wigham Dr. Raghu Lakshminarayan
12:30-13:00	Boston Scientific - Vascular (Alsh) Drug rehabilitation: Dose Matters	Dr Trevor Cleveland* Dr Ounali Jaffer
12:30-13:00	Boston Scientific - Oncology (Lomond Auditorium) Newcastle's Glass Experience: Findings from a retrospective study on Therasphere in HCC And A Patient's Perspective: My journey with HCC	Dr Peter Littler
14:00-15:00	 Wattie-Fletcher Lecture (Lomond Auditorium) Survive and Thrive in Interventional Radiology Gold Medal Presentation Honorary Fellowships 	Dr Matthew Gibson Dr Trevor Cleveland Mr Derek Edwards & Mr Andy Shepherd
15:00-15:45	BSIR AGM (Lomond Auditorium)	
15:00-15:45	SIRNR AGM (Alsh)	

DAY 2 - THURSDAY 3RD NOVEMBER 2022

TIME	SESSION & TOPIC	CHAIRS*/SPEAKERS
15:45-16:00	REFRESHMENT BREAK Exhibition and Posters (Hall 1 & 2)	
15:45-16:15	BD - Experiences of a new EndoAVF use r (Hall 2 - Auditorium)	Dr Ounali Jaffar
16:00-17:00	PARALLEL SESSIONS	
16:00-17:00	Scientific Session 3 - Aorta and Venous (Lomond Auditorium) Please see page 18 for timetable	Dr Ondina Bernstein* & Professor Malcolm Johnston*
16:00-17:00	Scientific Session 4 - Non Vascular/HPB/Renal/Urology (Alsh) Please see page 18 for timetable	Dr Georgia Priona* & Dr Ram Kasthuri*
17:00-18:00	Pointless IR - Image Interpretation - WIIGS and ROB-er (Lomond Auditorium) • Team A - Dr Rob Jones, Dr Rob Williams & Professor Robert Morgan • Team B - Dr Clare Bent, Dr Hilary White & Dr Joo-Young Chun	Dr Dominic Yu*, Dr Aidan Shaw & Dr Alex Barnacle*
19:15-23:00	BSIR ANNUAL DINNER AT GLASGOW SCIENCE CENTRE	



SCIENTIFIC SESSIONS 3 & 4

Scientific Session 3: Aorta & Venous

Thursday 3rd November 2022, 16:00-17:00, Lomond Auditorium. Session Chairs: Dr Ondina Bernstein and Dr Malcolm Johnston Full Abstracts can be viewed on pages 47-49

ORDER: TITLE & SPEAKER

Nadir Khan

Sajal Patel

Ali Zafar

4

- Correlating clinical signs of instability with imaging features and thrombolysis requirements in a patient cohort treated with catheter directed thrombolysis for acute pulmonary embolism

 Sajal Patel
- 2 Relationship between aortic neck characteristics and technical and clinical success of EndoAnchor deployment in endovascular aortic aneurysm repair
- Outcomes of Catheter Intervention for Acute Pulmonary Emboli in a tertiary centre with an established Pulmonary Embolism Response Team (PERT)

TIPSS: Outcomes at a University hospital in England

- 5 UK eperience of Manta Closure device for percutaneous EVAR
 Akash Prashar
- 6 National survey of radiation doses during endovascular aortic interventions
 Yvonne Tsitsiou
- 7 Tertiary centre experience of renal transplant angioplasty Vishnu Naidu

Scientific Session 4: Non-Vascular/HPB/Renal/Urology

Thursday 3rd November 2022, 16:00-17:00, Alsh. Session Chairs: Dr Georgia Priona and Dr Ram Kasthuri Full Abstracts can be viewed on pages 50-52

ORDER: TITLE & SPEAKER

1 Extra-anatomic ureteric stent as an alternative to long-term nephrostomy Nisha Pindoria

INISHA PINGOHA

2 Stenting of the Cystic Duct in Benign Disease

Ahmad Barotchi

3 ReCAAP (retrograde CBD access with anterograde puncture) technique to cross challenging biliary strictures and leaks

Tim Fotheringham

- **4** Re-intervention rates are high when treating benign oesophageal strictures with biodegradable stents Joseph Keighley
- 5 Practical lessons learnt from an audit and 5-years of experience from a low volume tertiary centre performing TIPS procedures.

Neel Doshi

6 Long term patient outcomes following biopsy of a small renal mass

Shyamal Patel

Full abstracts available on BSIR microsite **meeting.bsir.org** and in pages 41-59 of the Delegate Handbook

DAY 3 - FRIDAY 4TH NOVEMBER 2022

TIME	SESSION & TOPIC	CHAIRS*/SPEAKERS
09:00-10:00	PARALLEL SESSIONS	
09:00-10:00	 Diagnosis to Discharge Series 11 - Diabetic Foot (Lomond Auditorium) Importance of MDT Working in Diabetic Foot Disease IR in Diabetic Foot IR in Diabetic Foot: SFA & Popliteal Disease Infrapopliteal Disease: Latest Practices 	Dr Vassiliki Bravis* & Dr Kunal Khanna* Dr Vassiliki Bravis Professor Malcolm Johnston Dr Andrew Wigham Dr Raman Uberoi
09:00-10:00	 TIPS MDT (Alsh) My Patients Needs a TIPS My Patient Doesn't Need a TIPS My Patient Cannot Have a TIPS Management of Variceal Bleeds 	Dr Dominic Yu* & Dr Paula Novelli* Dr David Patch Dr Jai Patel Dr Shilpi Pal Dr Andrew Gunn
09:30-10:00	Poster Presentation (Hall 2) 6 Best Posters	
10:00-11:00	PARALLEL SESSIONS	
10:00-11:00	Scientific Session 5 - Embolisation (Lomond Auditorium) Please see page 20 for timetable	Dr Anthie Papadopoulou* & Dr James Briggs*
10:00-11:00	Scientific Session 6 - Governance/ Audit/ Farrago (Alsh) Please see page 20 for timetable	Dr Lakshmi Ratnam* & Dr Costa Tingerides*
11:00-12:00	 Men's Health (Lomond Auditorium) PAE - Patient Selection and Consent PAE - How do you Measure Success? Management of Varicocoeles Role of IR in Sexual Health 	Dr Charles Tapping* & Dr Zaid Aldin* Dr Clare Bent Professor Mark Little Dr Ondina Bernstein Dr Conrad von Stempel
12:00-13:00	LUNCH Exhibition and Posters (Hall 1 & 2)	
13:00-13:15	BSIR Communications (Lomond Auditorium)	Dr Aidan Shaw
13:15-14:00	 Trial Updates (Lomond Auditorium) Genesis Trial New Devices (NHSe) Update TACE 3/ Immune-TACE Trial HAE BSIR Burnout Survey Trauma Trial Update 	Professor Robert Morgan* Professor Mark Little Dr Rob Williams Dr Yuk Ting-Ma Dr Ahmad Al-Rekabi Dr Andrew Gunn
	PARALLEL SESSIONS	
14:00-15:00	 Service Development (Alsh) How to Write a Business Case How to Set up an IR Day Case How to Work with Non-IR Colleagues 	Dr Matthew Gibson* & Dr Lakshmi Ratnam* Dr Matthew Gibson Professor Robert Morgan Dr Sammy Rostampour
14:00-15:00	 MSK Interventions (Lomond Auditorium) Introducing Genicular Artery Embolisation: Challenges of Setting up the Service Soft Tissue Ablation Bone Tumour Ablation Bone Tumour Embolisation 	Professor Mark Little* Professor Mark Little Dr Anish Patel Professor Alda Tam Dr Charles Tapping
15:00	Closing Remarks (Lomond Auditorium)	Dr Phil Haslam

SCIENTIFIC SESSIONS 5 & 6

Scientific Session 5: Embolisation

Friday 4th November 2022, 10:00-11:00, Lomond Auditorium. Session Chairs: Dr Anthie Papadopoulou and Dr James Briggs Full Abstracts can be viewed on pages 53-55

ORDER: TITLE & SPEAKER

Diagnostic and therapeutic intranodal lymphangiography (ILAG) for chyle leaks – experience at two large specialist tertiary centres

Alan Campbell

2 Clinical Outcomes of Pelvic Vein Embolisation for the Treatment of Pelvic Venous Congestion Syndrome (PVCS) – A Single Centre Experience

Gayathri Angela Yogarajah

3 Erectile function after treatment for non-ischemic priapism

Rohaan Shahzad

- 4 Blunt Splenic Trauma in a Level 1 Trauma Centre: The expanding role of splenic artery embolization over 10 years
 Niaz Ahmed
- 5 Bronchial artery embolisation 14 year single centre experience Shyamal Patel
- 6 Cadaveric and angiographic anatomical considerations in the genicular arterial system: Implications for Genicular Artery Embolisation in patients with knee osteoarthritis

 Aiden O'Grady

Scientific Session 6: Governance/Audit/Farrago

Friday 4th November 2022, 10:00-11:00, Alsh. Session Chairs: Dr Lakshmi Ratnam and Dr Costa Tingerides Full Abstracts can be viewed on pages 56-59

ORDER: TITLE & SPEAKER

- A Three-year Comprehensive Stroke Centre Development Journey: Improving Door-to-Groin Puncture Time and Patient Outcomes for Mechanical Thrombectomy in Nottingham University Hospitals Joshua Wong
- 2 Streamlining Day Case Procedures: Tailoring Recovery to the Patient Katyayni Jha
- 3 IR BITES Interventional Radiology Medical School Curriculum Teaching Programm
 Mihir Rao
- 4 Extended roles in IR a new model for care

Laura Lewis

Investigation into the feasibility and educational value of a new cross-site on-call for Interventional Radiology trainees

Maged Mestrah

6 IR Training in the UK 2022 - What do trainees think?

Usman Mahay

7 Use of Phoenix Atherectomy in Critical Limb Ischaemia: a single centre case series

Sachin Modi

Full abstracts available on BSIR microsite **meeting.bsir.org** and in pages 41-59 of the Delegate Handbook

BSIRT/BSIR IR FOUNDATION DAY

Friday 4th November 2022

TIME SESSION / TOPIC CHAIRS*/SPEAKERS 09:00-09:10 Welcome (Boisdale) Inspiration Talk (Boisdale) 09:10-09:45 • Life in the fast lane- IR in major trauma centre Dr Neil Young • Fundamentals of IR Dr Tim Fotheringham My Favourite IR Procedure (Boisdale) 09:45-10:30 Dr Alison Graham • Women's health - Uterine Fibroid embolisation Dr Kishore Minhas • Paediatric IR • Non-vascular IR Dr Peter Douglas • Vascular IR Dr Martin Hennessy 10:30-11:00 Refreshment Break (Boisdale) IR Museum 11:00-11:45 Global IR (Boisdale) • Road2IR- The IR Journey in Africa Dr. Bhavna Pitrola • IR opportunities abroad Dr Neil Gupta • Cracking the code- Al in IR Dr Ganesh Vigneswaran 11:45-12:45 Hands On Workshops & Industry Kits (Hall 1 & 2) 12:45-13:30 Lunch (Boisdale) 13:30-14:20 Career Session (Boisdale) • Evolution of the IR consultant- A career in reflection Dr Ian Mccafferty • Getting your radiology number Dr. Ahmad Al-Rekabi • The IR training- more surgical than surgery Dr. Shian Patel/Dr. Drew Maclean • IRJ - What can I do to learn more **IR Juniors** 14:20-14:30 **Closing Remarks**









The Future of Interventional Radiology

ALL NEW FOR 2022!

Aiming to ensure pre-trainees feel welcome, supported and at the heart of the BSIR ASM.

A dedicated area for medical students and junior doctors interested in interventional radiology.

Come find us in Hall 1 next to the **Registration Area!**

At the Juniors Lounge you can:

> Meet your representatives

> Network and socialise

> Watch recorded webinars at the Learning Hub

> Get advice and support

> Rest and relax!







Follow BSIR Trainees and IR Juniors on social media

Share your Juniors Lounge experiences using the hashtag: #BSIRJuniorsLounge





UNIORS LOUNGE



Programme

	Wednesday 2 nd	Thursday 3 rd	Friday 4th
Opening & Morning	8.30: Post-Registration Welcome & Juniors Badge Allocation.	8.30: Coffee/Networking	8.30: Coffee/Foundations Day Meeting Point
	#BSIRJuniorsLounge Learning Hub: • TasteIR – General & Venous • IR Bites – Biliary	#BSIRJuniorsLounge Learning Hub: TasteIR – Paediatric IR IR Bites – Aortic	#BSIRJuniorsLounge Learning Hub: • IR Bites - Liver • Journal Club – GENESIS Trial
Coffee & Mid-Morning	10.30-11.00 Meet the BSIRT/IRJ Committees	10.00 - 10.30 Meet the BSIRT/IRJ Committees	10.30 - 11.00 Coffee & IR Museum
	#BSIRJuniorsLounge Learning Hub: IR Research Day – Why Do IR Research? RiiSE20 – IR Research as a Trainee	#BSIRJuniorsLounge Learning Hub: RiiSE20 - Professional Identity in IR & IR Ethics TasteIR - Women in IR	#BSIRJuniorsLounge Learning Hub: IR Research Day – Running a National Project TastelR – Interventional Oncology
Lunch & Afternoon	13.00 – 14.00: Lunch/Networking #BSIRJuniorsLounge Learning Hub: • Journal Club –	13.00 – 14.00: Lunch/Networking #BSIRJuniorsLounge Learning Hub: • Journal Club –	12.45 – 13.30: Lunch/Networking #BSIRJuniorsLounge Learning Hub: • IRJ/SRT Webinar –
Evening	• IR Bites – Prostate 18.30:	FEMME Trial IR Bites – PAD	Radiology Applications IRJ Webinar – Radiology for FY1s

Main ASM Drinks Reception

21.00:

Post-Conference Juniors Networking & Refreshments (TBC -More information at Juniors Lounge!)

> Share your Juniors Lounge experiences using the hashtag: #BSIRJuniorsLounge





SIRNR AGM

Annual General Meeting 2022

Thursday 3rd November 2022, 15:00-15:45, Alsh, SEC, Glasgow

Please scrutinise this agenda in advance of the meeting. If you consider that you may have a conflict of interest with regard to any item(s) for discussion you should contact the Chair prior to the meeting. The Chair will then adopt the agreed procedure in the best interests of all members of the Committee.

AGM AGENDA:

- 1. Apologies for Absence
- 2. Minutes of the previous Annual General Meeting
- 3. Matters Arising

Standing Items

- 4. SIRNR Report on Activities since previous AGM
- 5. Finance Report
- 6. Discussion Items

If you wish to become a member of SIRNR please come to the SIRNR desk at registration.



ACTIVE LEARNING ZONE

The learning zone will be held as a walk-in open access session, booking is not required.

Stations will be manned by friendly and experienced IRs, who will explain the procedures and devices available and discuss any aspects of the procedures. The session is unscripted, and discussions will be led by the needs of the delegates. The session is open to all delegates, practitioners from all backgrounds and levels of training including nurses, radiographers, medical students, and junior doctors are cordially invited.

The centre will be open on Wednesday 2nd and Thursday 3rd November, 9.30am - 12.30pm.

The learning centre has been generously supported with grants and phantoms by Cook For the first time, this year we will be running Vascular and Non-Vascular side by side on both days. We have listed below the topics covered.

Wednesday 2nd and Thursday 3rd November, 09:30am - 12:30pm:

- Biliary drainage
- Biliary stents
- GI stents
- Biopsy & drainage
- Gastrostomy
- Sedation
- Peads

Wednesday 2nd November and Thursday 3rd November, 09:30am - 12:30pm:

- Vascular Intervention
- Embolisation
- Ablation
- Stroke Thrombectomy

Faculty:

Mr Derek Edwards

Dr Tim Fotheringham

Dr Damian Mullan

Dr Raman Uberoi

Dr Andrew Shawyer

Dr Sarah O'Shea

Mrs Svetlana Vasileuskaya

Dr Ian McCafferty

Dr Raghu Lakshminarayan

Dr Vivek Shrivastava

Dr Saira Sayeed

Dr Peter Kennedy

Dr Des Alcorn

Dr Pav Najran

Professor Tze Wah

Dr Peter Littler

PROGRAMME LEARNING OBJECTIVES

WEDNESDAY 2ND NOVEMBER 2022

What's up doc?:

• All 4 Sessions - Latest News and Updates for the Coming Year

Diagnosis to Discharge: PAD

- Imaging Role of Doppler, CT and MR in work up of PAD. Importance of Doppler Imaging quality. CT and MR Imaging in Renal Impairment (and current technology using non contrast MR).
- IR Management When to Intervene in IC. Brief overview of CIA and EIA Stent (covered vs uncovered). Update on POBA vs DEB/DES. When to stent? What's the data? Use of dual antiplatelets in plasty vs stent.
- Diversity Health inequalities in women and diverse population. Differing outcomes in these groups. How to ensure improved outcomes. Update on ELEGANCE registry.
- Success Technical vs Clinical Success. Role of National registry use.

Diagnosis to Discharge: Liver Cancer Interventions

- When to ablate Imaging and other criteria to assess patient selection for ablation.
- How To discuss thermal/non-thermal ablation, CEUS, image fusion in ablation.
- Success How to assess resolution, recurrence on follow up imaging including functional imaging.
- Embolisation Evidence behind embolisation and ablation including current outcomes.

Diagnosis to Discharge: Gastrointestinal

- Upper GI Bleed Imaging and Indication for Upper GI embolisation including bleeding, and post-op complications and post esophagectomy patients.
- Lower GI Blees imaging and indication for lower GI embolisation including acute and chronic bleeding, and post-op complications.
- Hemorrhoid Current evidence. Technical aspects and patient selection.
- Upper GI stenting When and how to perform upper GI stent. Role of stenting in benign pathology.

Governance and Safety in IR

- Safe IR department Review of current guidelines. Importance of a LocSsips, Datix and SOPs.
- Coagulation Factors Review of current coag guidance for IR. Significance of PT, ATPP and INR in pre-operative work up. When to give products? Variations in parameters based on procedural risk.
- Contrast Allergy review of national guidance. Management of mild and moderate allergy prevention. How to image the vasculature (CT and DSA) in patient with anaphylaxis to contrast.
- Safe sedation who should give sedation. Parameters to monitor during sedation. Natural half lives of common sedative agents. Nerve blocks to be used in conjunction with systematic sedation.

Diagnosis to discharge: Trauma IR

- IVC filters current evidence in use of filters in trauma and non-trauma settings. Overview of current trial and studies. SIR and CIRSE guidance review.
- Hepatic Trauma imaging work up in hepatic trauma. When to intervene based on clinical and imaging appearances. Techniques for embolisation.
- Embolisation is best Current evidence for SAE. Summary of the SPLEEN-IN and IMMUNE trial results, distal vs proximal embolisation. Which embolic to use, including plugs, gel foams and coils.
- Splenectomy is best Current evidence supporting splenectomy in trauma and outcome.

Diagnosis to Discharge: Renal Tumours

- When to treat Imaging workshop and patient selection. Patient factors. Neprometry Score. When to biopsy first.
- Thermal vs non-thermal Role of MWA vs Cryo vs IRE. Current literature to support each mode of ablation.
- Embolisation Role of embolisation in renal tumours. Role of combined embolisation and ablation. Current outcomes.
- Success imaging, impact on renal function, metastasis free survival etc.

Back In my Day..... This Is How It Was

• Trip down memory lane. A review of the strangest, weirdest and quirkiest IR procedures we used to do and perhaps we still do.

PROGRAMME LEARNING OBJECTIVES

THURSDAY 3RD NOVEMBER 2022

Diagnosis to Discharge: benign HPB

- When to Intervene Discuss non-infective clinical presentations of benign biliary obstruction. Imaging features that indicate intervention would be beneficial. Management of benign biliary structures including retrievable, meta stents and biodegradable stents.
- Benign vs Malignant Role of MDT discussion, prior to intervention vs OOH PTC for being disease. Role of endobiliary RFA in benign biliary structures. Considerations for PTC in benign vs malignancy pathologies (including procedure planning).
- Cholangioscopy Indications for Cholangioscopy. Step by step guides plus how to set up training in your center. Role of virtual/online resource. Outcomes.
- Embolisation IR in benign liver lesions large hemangioma embo, PAIR in hydatid cyst etc.

Women's Health

- UFE: Size current evidence supporting UFE in large uterine volume. Evidence of particle size and outcome.
- UFE success Clinical vs Imaging Success. MR size assessment. QoL assessment and monitoring of ovarian resevce.
- Pelvic Congestion Current indications for OVE. Recent guidance on gradings of PCS. Controversy in nutcracker syndrome. Role of IV embolisation.
- Obstetric Emergencies Role of IR in post-partum and peri partum bleeding complications.

Diagnosis to Discharge: Aortic Disease

- EVAR Review of NICE and international guidelines compared to the current evidence. Are open outcomes related to reduced training times? How can IR contribute towards upholding Standards of practice?
- Challenging EVAR Definition of hostile neck. Role of MDT discussion and pre-operative planning. Endoleak rates. Tips and tricks for managing intra-operative Type 1a endoleak.
- Follow up Imaging CT follow up assessment of EVARs. How to monitor sac diameter, early vs late endoleaks. When to intervene and imaging protocols for optimal EVAR assessment. Role of MR and Doppler in follow up imaging.
- Good, Bad, Ugly Role of NVR in EVAR. How has it improved practice and outcomes. What are its limitations. Will the NVR has legal implications when EVARs fail.

Diagnosis to Discharge: Acute Aortic

- Understanding Acute Aortic Definition of AAS. Imaging features of each of the AAS. What is important in the CT report? Role of cardiac gated CTA for Type B AASs.
- When to intervene Acute features in AD, IMH and PAU that warrant intervention, vs chronic complications of AAS that require TEVAR. Outcomes of TEVAR in AAS.
- Success post TEVAR Imaging features of post TEVAR CT. False lumenr patency and retograde flow: when to intervene. TEVAR in Collagen disorder.
- Spinal Ischemia in TEVAR Spinal ischaemia risk when covering SCA or intercostals. Indications for Spinal Drain. Where is the evidence of spinal drain. Role of MRI in diagnosis. Role of post TEVAR spinal drains.

FRIDAY 4TH NOVEMBER 2022

Diagnosis to Discharge: Diabetic foot

- Importance of MDT Outcomes prior to MDT working. How do we measure success in Diabetic foot disease? Case presentations of success stories.
- IR in Diabetic Foot Technical considerations for diabetic foot interventions. DEB and DES use. When to stent? Outcomes for this cohort.
- IR Infrapopliteal Phoenix Registry
- Infrapopliteal disease Role of Infrapopliteal stenting, Venous arterialisation.

MSK Interventions

- Introducing How to set up the service. Business case for GAE. Funding for GAE and NICE guidance.
- Soft tissue ablation Role of ablation methods in soft tissue ablation. Patient selection and work up.
- Bone Ablation Current evidence. Patient selection and long-term outcomes. How do you measure success on follow up imaging?
- Bone Embolisation role of embolisation for primary and metastatic bone tumours, including pre-operation embo. Reintervention rates.

TIPS MDT

- Patient needs TIPS Patient Selection, Role of portal vein recanalization, ectopic varices, Tips, and tricks
- Doesn't need a TIPS Patient selection. How to stratify if patient needs TIPS. MDT discussion and outcomes when no TIPS takes place
- Cannot have TIPS Patients in extremus needing TIPS. How to select. How to work patient up and adverse events to prepare for

DIAGNOSIS TO DISCHARGE SERIES

DIAGNOSIS TO DISCHARGE SERIES 1: GASTROINTESTINAL

Wednesday 2nd November 2022, 09:45-10:45, Lomond Auditorium.
Session Chairs: Dr Ram Kasthuri and Dr Aidan Shaw

TITLE SPEAKER

Management of Upper GI Bleed Management of Lower GI Bleed Haemorrhoid/emborrhoid embolisation Upper GI Stenting Dr Elizabeth O'Grady Dr Jeremy Taylor Dr Clare Bent Dr Aidan Shaw

DIAGNOSIS TO DISCHARGE SERIES 2: LIVER CANCER INTERVENTIONS

Wednesday 2nd November 2022, 09:45-10:45, Alsh Session Chairs: Dr Rony Avritscher and Dr Professor Tze Wah

TITLE SPEAKER

When to Ablate? How to Ablate? How do you Measure Success Post Ablation? Embolisation and Ablation Dr David Kay Dr Ondina Bernstein Dr Peter Kennedy Dr Rony Avritscher

DIAGNOSIS TO DISCHARGE SERIES 3: PAD

Wednesday 2nd November 2022, 14:00-15:00, Lomond Auditorium.

Session Chairs: Dr Kunal Khanna and Dr Andrew Winterbottom

TITLE SPEAKER

Imaging of PAD: Doppler, CTA or MRA?
IR Management of the Claudicant - POBA vs DEB/DES
Diversity in PAD
How do you Measure Success in PAD?

Dr Raf Patel Dr Bella Huasen Professor Maureen Kohi Dr Raghu Laksminarayan

DIAGNOSIS TO DISCHARGE SERIES 4: TRAUMA IR

Wednesday 2nd November 2022, 15:00-16:00, Lomond Auditorium. Session Chairs: Dr Thoraya Ammar and Dr Shilpi Pal

TITLE SPEAKER

IVC Filters in trauma - Where is the Evidence?
Hepatic Trauma - When to Intervene
BSIR DEBATE - Splenic Trauma: Embolisation is best for the Patient
BSIR DEBATE - Splenic Trauma: Splenectomy is Best for the Patient

Dr Joo-Young Chun Dr Shilpi Pal Professor Warren Clements Dr Morgan McMonagle

DIAGNOSIS TO DISCHARGE SERIES

DIAGNOSIS TO DISCHARGE SERIES 5: RENAL TUMOURS

Wednesday 2nd November 2022, 15:00-16:00, Boisdale Session Chairs: Dr Phil Haslam and Dr Neil Gupta

TITLE SPEAKER

When to Treat Renal Tumours
How to Kill the Tumour: Thermal vs Non-Thermal

Embolization

How Do You Measure Success?

Dr Salil Karkhanis Professor Tze Wah Dr Andrew Gunn Dr Mark Lewis

DIAGNOSIS TO DISCHARGE SERIES 6: BENIGN HPB

Thursday 3rd November 2022, 08:00-09:00, Alsh Session Chairs:Dr Paula Novelli and Dr Elizabeth O'Grady

TITLE SPEAKER

Benign HPB - When to Intervene Benign vs Malignant PTC Biliary Cholangioscopy

Embolisation of Non-Malignant Tumours Liver

Dr Teik Choon See Dr Aidan Shaw Dr Clare Bent Dr Paula Novelli

DIAGNOSIS TO DISCHARGE SERIES 7: RENAL INTERVENTIONS

Thursday 3rd November 2022, 08:00-09:00, Lomond Auditorium. Session Chairs: Dr Raj Bhat and Dr Thoraya Ammar

TITLE SPEAKER

Renal Artery Stenting - Where is the Evidence?
PCNL: Tips and Tricks
Transplant Renal Artery: How Aggressive Should You Be?

Central Venous Occlusion for Dialysis

Dr Saira Sayeed Dr Phil Haslam Dr Jai Patel Dr Rob Jones

DIAGNOSIS TO DISCHARGE SERIES 8: AORTIC DISEASE

Thursday 3rd November 2022, 09:00-10:00, Alsh Session Chairs: Dr Thoraya Ammar and Dr Bella Huasen

TITLE SPEAKER

EVAR: Is the UK falling behind?
The Challenging Proximal Neck in EVAR

How do you Measure Success on Follow Up Imaging?

NVR: The Good, The Bad and The Ugly

Dr Raghu Laksminarayan Dr Thoraya Ammar Dr Andrew Winterbottom Mr Arun Pherwani

DIAGNOSIS TO DISCHARGE SERIES

DIAGNOSIS TO DISCHARGE SERIES 9: ACUTE AORTIC SYNDROMES

Thursday 3rd November 2022, 10:30-11:30, Lomond Auditorium. Session Chairs: Dr Ondina Bernstein and Dr Ganapathy Anantha Krishnan

TITLE SPEAKER

Understanding Acute Aortic Syndromes When to Intervene in Acute Aortic Dissections How do you Measure Success Post TEVAR? Spinal Ischaemia in TEVAR Dr Trevor Cleveland Dr Rob Williams Dr Sapna Puppala Mr Mike Jenkins

DIAGNOSIS TO DISCHARGE SERIES 10: LIVER CANCER INTERVENTIONS PART 2

Thursday 3rd November 2022, 10:30-11:30, Alsh Session Chairs: Dr Paula Novelli and Dr Lynn Ling

TITLE SPEAKER

Venous Deprivation - When and How SIRT - (Y90) - When and How Hot or Not? Immune Therapy in HCC Hot Topic in Liver IO Dr Peter Littler Dr Jon Bell Dr Yuk Ting Ma Dr Rony Avritscher

DIAGNOSIS TO DISCHARGE SERIES 11: DIABETIC FOOT

Friday 4th November 2022, 09:00-10:00, Lomond Auditorium.

Session Chairs: Dr Vassiliki Bravis and Dr Kunal Khanna

TITLE SPEAKER

Importance of MDT Working in Diabetic Foot Disease IR in Diabetic Foot IR in Diabetic Foot: SFA & Popliteal Disease Infrapopliteal Disease: Latest Practices

Dr Vassiliki Bravis Professor Malcolm Johnston Dr Andrew Wigham Dr Raman Uberoi

MASTER CLASSES

Please see below the list of Masterclasses for this year's ASM. If you wish to attend a Masterclass, please register at reception.

Masterclass 1A PAD

Thursday 3rd November, 08:00-09:00, Carron 1 & 2

Masterclass 1B PAD

Thursday 3rd November, 10:30-11:30, Carron 1 & 2

Masterclass 2A Interventional Oncology

Wednesday 2nd November, 14:00-15:00, Carron 1 & 2

Masterclass 2B Interventional Oncology

Thursday 3rd November, 09:00-10:00, Carron 1 & 2

Masterclass 3A Paediatric IR for the Adult IR

Wednesday 2nd November, 09:45-10:45, Dochart 1 & 2

Masterclass 3B Paediatric IR for the Adult IR

Wednesday 2nd November, 15:00-16:00, Carron 1 & 2

Masterclass 4A Nerve Blocks and Sedation in IR

Thursday 3rd November, 09:00-10:00, Dochart 1 & 2

Masterclass 4B Nerve Blocks and Sedation in IR

Thursday 3rd November, 10:30-11:30, Dochart 1 & 2

Masterclass 5A Governance and Safety in IR

Wednesday 2nd November, 09:45-10:45, Carron 1 & 2

Masterclass 5B Governance and Safety in IR

Thursday 3rd November, 08:00-09:00, Dochart 1 & 2

Masterclass 6A Aortic Interventions

Wednesday 2nd November, 14:00-15:00, Dochart 1 & 2

Masterclass 6B Aortic Interventions

Wednesday 2nd November, 15:00-16:00, Dochart 1 & 2

IR CURRICULUM

The below talks feature in the BSIR ASM 2022 Meeting Programme and relate directly to the IR Curriculum.

Diagnosis to Discharge Series 1, Gastrointestinal

Wednesday 2nd November 09:45-10:45, Lomond Auditorium

Diagnosis to Discharge Series 3, PAD

Wednesday 2nd November 14:00-15:00, Lomond Auditorium

Governance and Safety in IR

Wednesday 2nd November 14:00-15:00, Boisdale

Diagnosis to Discharge Series 4, Trauma IR

Wednesday 2nd November 15:00-16:00, Lomond Auditorium

Diagnosis to Discharge Series 5, Renal Tumours

Wednesday 2nd November 15:00-16:00, Boisdale

Women's Health

Thursday 3rd November 09:00-10:00, Lomond Auditorium

Diagnosis to Discharge Series 8, Aortic Disease

Thursday 3rd November 09:00-10:00, Alsh

Diagnosis to Discharge Series 9, Acute Aortic Syndromes

Thursday 3rd November 10:30-11:30, Lomond Auditorium

TIPS MDT

Friday 4th November 09:00-10:00, Alsh



ESSAY SCHOLARS

All winners have now been notified. If your name is on the list and you have not received an email from bsir, please contact abstracts@bsir.org:

Asma Jebril Jeel Shukla

Aiman Aslam
Ghazn Khan Bilal Saleem

Koushikk Ayyappan
Lucy Mcguire Naomi Pygott

Muhammad Ariful Islam Niamh Horne
Leah Brooks

Devvrat Kaushik Helen Hoi Lam Ng Mihir Rao

Zeeshan Kazmi Aisha Ghani Taha Shiwani

Stefan Lam

Ben Thomson

Keisha Davies

Abin Varghese

Hanna Maroof

CASE STUDIES

Syed Rahman Jim Zhong Emma Routledge

Hunain Shiwani Linda Watkins David Jarosz

Eamon Lagha Shruti Bodapati Ajit Kishore

Hossam Saro Kiran Lehal Alaaeldin Ginawi

Michael Moreton-Smith Shamus Butt Dan Kearns

Varun Misra Joshua Wong Simon Braithwaite

Paul Jenkins Benjamin Kemp Keegan Curlewis

Joao Pedro Mestre Da Costa Girish Nk Peter Jamieson

Krishanth Ganesan Hannah Sanchez-Lewis Zeinab Al-Rekabi

Tun Tha Chee Woei Yap Marawan Elfarargy

Karan Daga

ROBERT BARDSLEY EDUCATIONAL FUND

Robert Bardsley Educational Fund

The Robert Bardsley Educational Fund was set up in 2019 by UK Medical in memory of Robert Bardsley who was a former radiographer in Manchester. Rob then worked in industry for many years as an enthusiastic educator with a great sense of humour and passion for all things interventional. The fund supports research and innovation by junior doctors in two ways:

Robert Bardsley Award

The Robert Bardsley Award is granted to the best junior presentation at the BSIR annual meeting on the subjects of either GI stenting, GI intervention or non-vascular intervention. The award will cover all expenses up to a maximum of \pounds 1,500.- at the BSIR ASM in the following year. Oral presentations are given preference to posters.



Robert Bardsley Bursary

Applications are invited for small research grants up to \pounds 1,500.- to support and pump-prime non-vascular research projects undertaken by trainees of any stage. Preference will be given to projects around GI-stenting and GI-intervention. A written application in abstract form (Purpose / Methods / Time frame / Cost projections) needs to be submitted to office@bsir.org.

Robert Bardsley Educational Fund

The Robert Bardsley Educational Fund was set up in 2019 by UK Medical in memory of Robert Bardsley who was a former radiographer in Manchester. Rob then worked in industry for many years as an enthusiastic educator with a great sense of humour and passion for all things interventional. The fund, which is sponsored by Ian Aaron, director of "It's Interventional." (prev. UK Medical) supports research and innovation by junior doctors in two different ways: An annual "Best junior presentation" award and annual research bursaries.

Due to the long-term commitment the award process for both will be done under long-term supervision by a designated officer, who will write an annual report for the sponsor, maintain a list of previous awards and bursaries for the website and the review the balance of the fund in conjunction with the treasurer.

Notification of BSIR Awards 2022

- The Best Presentation by a BSIR Junior member will be awarded a £1500 grant to attend CIRSE 2023.
- Two Best Overall Presentations will receive grants of £750 to attend an IR Meeting in 2023 (subject to BSIR approval).
- The Rob Bardsley Prize is a new award for 2022, which consists of a £1500 grant to attend BSIR ASM 2022 (registration, accommodation & travel) for the best GI related submission.
- 3 Best Scientific Posters and 3 Best Educational Posters will receive a £50 amazon voucher.



FASTER. FURTHER. LARGER.

Physicians Asked.
The New Shockwave M⁵⁺ Delivers.



contraindications, warnings, precautions and adverse events.

www.shockwavemedical.com

POSTER LIST - SCIENTIFIC

SP003075	CT-guided Lung Biopsy in Interstitial Lung Disease Laura Marsland	
SP003098	A review of percutaneous biliary intervention (drainage +/- stenting) in a tertiary centre Hannah Lewis	
SP003101	Do patients with advanced chronic kidney disease require early initiation of dialysis after administration of intravenous contrast load equivalent of a computed tomography pulmonary angiogram? Ismail Anees	
SP003127	Feasibility and Safety of Radiologically Inserted Gastrostomy Tube Insertion via a Day-Case Pathway Bhavin Kawa	
SP003148	The effectiveness of local anaesthetic blocks during gastrostomy insertion; a retrospective review. Aisling Carroll Downey	
SP003151	The extent to which insertion of a nasogastric tube prior to radiological inserted gastrostomy increases radiation dose; a retrospective study Aisling Carroll Downey	
SP003159	Antibiotic Prophylaxis for Nephrostomy Essam Hashem	
SP003173	Safety and feasibility of day case microwave ablation of renal cell carcinoma tumours Ceri Rowlands	
SP003194	Femoropopliteal stent occlusion- identifying modifiable factors Akash Prashar	
SP003201	The use of virtual reality software Holoeyes in the teaching of vertebroplasty: A post user experience survey Alfred Tan	
SPOP003041	Embolization for right varicocele, is there a role of MRI venography workup? Nadir Khan	
SPOP003054	A systematic review of intra-arterial embolization for adhesive capsulitis Mark Thomas Macmillan	
SPOP003060	Genicular artery embolization in knee osteoarthritis: a systematic review and meta-analysis Jun-Li Tham	
SPOP003063	Online Graphical Abstracts as an IR Education Medium for Medical Students and Junior Doctors Nicholas Lorch	
SPOP003072	Lessons learned from SMA thrombectomy and thrombolysis in two hospitals Robert Shaw	
SPOP003073	Current UK experience and latest data evaluation of SELUTION DCB in PAD Bella Huasen	
SPOP003076	ELIXIR - an Evaluation of Learning and eXposure to the undergraduate interventional Radiology curriculum Filzah Hanis Osman	
SPOP003077	Gastroduodenal Artery (GDA) Embolisation for Gastrointestinal (GI) Bleeding: Outcomes of our cases performed over a 5 year period.? Kacper Dziedzic	
SPOP003082	Patient reported outcomes after Uterine Fibroid Embiolisation Mithun Kumar	
SPOP003083	Peri-procedural Thromboprophylaxis in the Prevention of DVT in Varicose Vein Interventions: A Systematic Review and Meta-Analysis Ageel Alameer	
SPOP003087	Common Femoral Arterial (CFA) stenting for atherosclerotic disease shows good outcome in the short and medium term: Retrospective, Single-center case series. Sharukh Sami	
SPOP003088	A Systematic Review of the Endovascular Management of Renal Artery Aneurysms Kevin Sheahan	
SPOP003092	Uterine Artery Embolisation: Is there a right way? Tze Hung Siah	
SPOP003109	Improving medical student engagement efforts in radiology through creation of a nationwide undergraduate radiology society network in the UK Tun Tha	

Digital posters can be viewed at the Poster Station in Hall 2 and on the BSIR microsite **meeting.bsir.org**

3 6

POSTER LIST - SCIENTIFIC

SPOP003110 Low-Fidelity Endovascular Simulation in Interventional Radiology Training Lucy McGuire SPOP003136 10-year overview in a specialist Vascular Interventional Radiology Institute: before and during the **COVID-19 pandemic** Amarit Gill SPOP003139 IVC filter retrieval; our success rate and role of database. Yiannis Skarparis SPOP003142 Palliative colorectal stenting - who and when? Nick Lorch SPOP003165 Image Guided Biopsy of Small Renal Masses (SRM) and its Role in Stratifying Management - Data from long term follow-up of a biopsy cohort Shyamal Patel SPOP003167 Empirical track embolization for US guided percutaneous liver biopsies. Is it required? Faheez Shafeek SPOP003184 Endovascular treatment of ruptured para-anastomotic aneurysms of the aorta and iliac artery using balloon expandable stent grafts. William Monks SPOP003189 In pre-menopausal women with symptomatic uterine fibroids, is MR guided Focussed US (MRgFUS) comparable to Uterine Artery Embolisation (UAE) for disease control? Logeswaran Selvarajah **Outcomes of Day Case Uterine Fibroid Embolisation** SPOP003191 Anna Sozanska SPOP003202 Direct admission versus secondary transfer for patients treated with mechanical thrombectomy in our Comprehensive Stroke Centre - has our relocation been justified? Joshua Wong SPOP003205 Sciatic nerve hematoma following External Iliac artery angioplasty: A rare complication. Sharukh Sami SPOP003206 Where did you come from, where did you go: Are Radiology trainees losing interest in IR? **Emilie Lostis** OP003069 'Complete' versus 'incomplete' uterine fibroid embolisation - clinical and imaging outcomes. Andrew Christie OP003158 Oncological and peri-operative outcomes of cryoablation of renal cell carcinoma for patients with hereditary RCC diseases - An analysis of European multinational prospective EuRECA registry Vinson Wai-Shun Chan

Digital posters can be viewed at the Poster Station in Hall 2 and on the BSIR microsite **meeting.bsir.org**

POSTER LIST - EDUCATIONAL

EP003031	Pictorial review of common complications in radical cystectomy patients with ileal conduits and the role of Interventional Radiology Ali Moonan
EP003035	Physician Associate role in Interventional Radiology Mark Laffan
EP003037	Interventional techniques for removing a non-deflating Foley catheter Sanjiv Sharma
EP003044	Fluoroscopic stenting of recurrence at the gastrojejunal anastomosis Mina Al Shalchi
EP003047	Fluoroscopic stenting for linitis plastica – technique and outcomes Ojoma Emeje
EP003048	Transcatheter embolisation of a Rasmussen's aneurysm with microcoils
EP003050	Ojoma Emeje Percutaneous thrombin injection for treating active bleeds
EP003055	Sanjiv Sharma Direct transhepatic small bowel puncture and stenting for afferent loop syndrome
EP003056	Mina Al Shalchi Transluminal biopsy of the oesophagus using biliary biopsy forceps under fluoroscopy guidance: technique and outcomes
EP003078	Mina Al Shalchi WHO Safety Checklist Compliance of Interventional Porcedures
EP003079	Kayleigh Hizzett Evolution of a radiographer advanced practitioner in urology fluoroscopy
EP003081	Amy Dixon Transjugular intrahepatic portosystemic shunt (TIPS) stent and embolisation of paraumbilical varices due
	to alcoholic liver disease: a case report Aqeel Alameer
EP003096	The oculocardiac reflex (OCR): a rare but significant cardiovascular complication during percutaneous sclerotherapy of a retro-orbital low flow venous malformation (LFVM) Shyamal Patel
EP003107	Endovascular Management of Parastomal Varices: A Systematic Review and Single-Center Experience Gerges Abdelsayed
EP003120	Enteral feeding tube service, factors effecting the quality of the service provided Asanda Koza
EP003122	Delayed presentation percutaneous liver biopsy complication: pseudoaneurysm with upper gastrointestinal haemorrhage. Chee Woei Yap
EP003130	Tele-proctorship - bringing world class expertise to every operating table Sajal Patel
EP003137	IR management of postoperative chyle leaks – pearls gathered by learning from experience Fiona Lyall
EP003138	Malignant ureteric obstruction can be treated using more than just a locking loop nephrostomy or a double-J stent; an educational review of the wider range of treatment options available Sarah Khan
EP003145	Implementation of TIRTL - The Interventional Radiology Training Logbook Neil Gupta
EP003150	The use of SpyGlass in complex PTC Greg Dickman
EP003168	Treatment of Type II endoleak using a transcaval approach Vishnu Naidu
EP003188	Role of Diagnostic and Interventional Radiology in Haemobilia Logeswaran Selvarajah
EP003204	The utilisation of cadaveric specimens for high fidelity simulation interventional radiology training Oliver Hulson
EP003209	Antegrade ureteric stent exchanges - techniques revisited and pictorial review. Syed Rahman

Digital posters can be viewed at the Poster Station in Hall 2 and on the BSIR microsite **meeting.bsir.org**

3 8

POSTER LIST - EDUCATIONAL

EP003211 Dieulafoy lesion - diagnosis and management of a rare cause of gastrointestinal bleeding. Syed Rahman EP003212 Direct gonadal vein access for varicocele embolization - an unusual approach for an unusual case Syed Rahman EP003213 Percutaneous management of an infected saphenous vein graft aneurysm Daniel McKernan EP003214 Anatomical considerations when performing embolization for uterine fibroids Ghazn Khan OP003117 An experience of cadaveric dissection for femoral angioplasty education Caitlin Pollock SP003049 Percutaneous Transhepatic Embolization - An option to treat massive rectal variceal bleeding due to portal hypertension Marawan El Farargy SP003144 Techniques to remove a Freka gastrostomy with or without a buried bumper Leyla Mohamed SPOP003205 Sciatic nerve hematoma following External Iliac artery angioplasty: A rare complication. Sharukh Sami

Digital posters can be viewed at the Poster Station in Hall 2 and on the BSIR microsite **meeting.bsir.org**



Proud to Sponsor BSIR 2022

Visit us for Product Demonstrations-**CT Navigation and Thyroid Ablation**





Enjoy an acupressure massage





STAND 18

Drinks Reception Wednesday 2.30pm

Thursday 2pm



Scientific Session 1: Peripheral and Visceral Vascular

Wednesday 2nd November 2022, 16:30-17:30, Lomond Auditorium. Session Chairs: Dr Saira Sayeed & Dr Elika Kashef

SPOP003121 - BioMimics 3D Stent - Single centre real-world experience

Scott Griffiths, Hull Royal Infirmary, Shahid Seedat, Hull Royal Infirmary, Raghuram Lakshminarayan, Hull Royal Infirmary

Aims: To investigate the clinical outcomes of patients treated with the BioMimics 3D? Vascular Stent System in a real-world setting **Materials and Methods:** We conducted a single centre service evaluation of patients who had undergone stenting with BioMimics 3D? Vascular Stent System to their superficial femoral or popliteal artery. Analysis of patients radiological imaging and electronic patient records was performed to obtain the data. The primary endpoint was a composite of freedom from: all-cause mortality, major limb amputation, bypass grafting, radiological patency, and re-intervention at the target site. Major limb amputation was defined as above trans-metatarsal.

Results: A total of 39 patients (Age: 74.6? 9.8 years, 57.5% male sex) were identified over a 14-month period, with follow up times ranging from 146 to 582 days (mean 367 days). Pre-intervention Rutherford scores and lesion characteristics were measured. Kaplan-Meir estimates of the primary outcome at 30 days was 79.5% (95% CI: 67.8–93.2), 58.3% (95% CI: 44.5–76.3) at 182 days and 42.2% (95% CI: 27.6–64.6) at 365 days. We compared our 30-day primary endpoint of 79.5% to the 30-day primary safety outcome of 98.8% from the 2-year published results of the MIMICS-3D trial and found it significantly different (two-sided p < 0.001).

Conclusion: Our experience of the BioMimics 3D? Vascular Stent System we found poorer patient outcomes than reported in literature. We hypothesise that this variation in outcomes could be the result of more severe pre-intervention Rutherford scores and lesion characteristics in our cohort.

SPOP003141 - Eligibility of COmmoN FEmoral artery atheroSclerotic diSease for endovascular treatment – the CONFESS study Gabriela Kaneta, Guy's and St Thomas' NHS Foundation Trust, Athanasios Saratzis, University of Leicester Hany Zayed, Guy's and St Thomas' NHS Foundation Trust

Aims: This observational study aimed to describe the morphology and composition of CFA lesions treated with CFAE and report the proportion that would be amenable to endovascular treatment with modern technologies.

Background: Advances in endovascular technologies have allowed the treatment of CFA steno-occlusive disease with minimally invasive means; however, the proportion of the lesions treated with Common Femoral Artery endarterectomy (CFAE) which would be amenable to endovascular treatment is unknown.

Methods: Patient presenting with symptomatic PAD who underwent CFAE from January 2014 to December 2018 in two NHS tertiary hospitals were included. Extensive data relating to the anatomy and morphology of the CFA atherosclerotic lesions were collected, including detailed plaque analysis using 3D reconstruction based on CTA.

Results: A total of 829 CFAs in 737 consecutive patients who underwent CFAE were included (mean age 71±10 years; 526 males, 71%); 451 (62%) presented with CLTI. Overall, 35% of CFAs had a localised lesion that could have been easily treated endovascularly. 376 (45%) target vessels had a calcium load <1.1 cm³ with a patent CFA, PFA and proximal SFA and therefore would have been amenable to less complex endovascular treatment while 271 CFAs (33%) had a severe calcium load (>1.1 cm³) which would have required stenting.

Conclusion: A significant proportion of patients with atherosclerotic CFA lesions who undergo surgery could potentially be candidates for endovascular treatment. A randomised trial comparing CFAE and new endovascular techniques in this clinical context is urgently required.

SP003178 - Factors influencing long term outcomes for endovascular revascularisation in patients with chronic mesenteric ischaemia

Alaaeldin Ginawi, University Hospitals of Derby and Burton NHS Foundation trust. Mohammad Miah, University Hospitals of Derby and Burton NHS Foundation trust. Sivaram Premnath, University Hospitals of Derby and Burton NHS Foundation trust. Sreekanth Sukumaran, University Hospitals of Derby and Burton NHS Foundation trust. Adel Abdallah, University Hospitals of Derby and Burton NHS Foundation trust. Philipe Ishak, University Hospitals of Derby and Burton NHS Foundation trust. Adam Talbot, University Hospitals of Derby and Burton NHS Foundation trust. Sophie Spencer, University Hospitals of Derby and Burton NHS Foundation trust. Saurabh Verma, University Hospitals of Derby and Burton NHS Foundation trust. James Kirk, University Hospitals of Derby and Burton NHS Foundation trust. Timothy Rowlands, University Hospitals of Derby and Burton NHS Foundation trust. Ganesh Kuhan, University Hospitals of Derby and Burton NHS Foundation trust.

Endovascular revascularization (ER) for chronic mesenteric ischemia (CMI) has comparable outcomes with open revascularization, but it is associated with higher rates of restenosis and re-interventions.

All patients treated with ER for CMI between 2012 and 2020 were analysed. Twenty clinical, five anatomical, six procedure-related and seven outcome variables were collected. Kaplan-Meier survival analysis was carried out to identify variables influencing symptom recurrence, re-interventions and survival. Predictors were determined using a log-rank test and Cox regression analysis. Thirty-seven patients were included with a mean age of 72.9 (range 50-90) years and 64.9% were women. Smokers were 51.4%, 94.6% patients had single-vessel treatment and 81.1% were treated with covered-stent. Median follow up was 59.7 (range 10.7-111.2) months. The 30-day-complications and mortality rates were 16.2% and 5.4% respectively. Symptoms recurred in 18.9% and 10.8% had re-interventions. Median survival was 86.4 (95% CI 29.0-143.8) months, median symptom free survival was 52.9 (95% CI 24.8-81.0) months and median intervention free survival was 86.4 (95% CI 26.4-146.4) months. Smoking was associated with recurrence of symptoms (p=0.028) and re interventions (p=0.033). Revascularisation using covered stents reduced re-interventions (p=0.002).

The use of covered stent and cessation of smoking can improve the outcomes for ER in patients with CMI.

SP003208 - Jetstream Atherectomy for the treatment of Femoropopliteal artery disease, single centre experience and short-term outcomes

Alaaeldin Ginawi, Nottingham University Hospitals Yousif Eltinay, Nottingham University Hospitals Hussam Elzanati, Nottingham University Hospitals Said Habib, Nottingham University Hospitals

Aims: The aim of this study is to assess the short-term outcomes using Jetstream atherectomy system for the treatment of femoropopliteal artery disease (FPAD) in our centre.

Materials and Methods: Data of 52 patients with FPAD (both de novo lesions and in-stent stenosis) treated at our centre using Jetstream atherectomy between January 2017 and December 2019 were analysed. The primary study end points assessed were technical success and major complications at 30 days (distal embolisation, dissection or amputation). Other outcomes measured were survival and early re-intervention.

Results: Technical success as described by the operator was 98.1% (Excellent= 65.4% (n=34), Good=32.7% (n=17) and Unsuccessful= 1.9% (n=1) (with good response to anticoagulation on follow-up duplex study). The major complication rate was 25% (n=13); distal embolization 17% (n=9) all of which were immediately recognised and treated successfully intraoperatively, SFA dissection required stenting 3.8% (n=2), CFA pseudo-aneurysm 1.9% (n=1) and SFA re-occlusion 1.9% (n=1). Survival at 6 month is 96.1% (n=50) and 11.5% (n=6) required further intervention related to the target lesion within 6 months of the initial procedure (Surgical or Endovascular).

Conclusion: The use of Jetstream atherectomy is highly effective in treating FPAD. Our study shows that the use of Jetstream is associated with very high technical success rate and low early re-intervention rate and although the rate of distal embolisation is high, this can be successfully treated intraoperatively with excellent final outcomes.

EP003028 - Peripheral nerve block and local anaesthesia versus local anaesthesia alone for lower limb angioplasty - a retrospective review

David Gibeon, Institution: University College London Hospital (UCLH)
Natalie Marzouqa, University College London Hospital (UCLH)
Lee Varney, University College London Hospital (UCLH)
Daryll Baker, Royal Free and University College London Hospitals
Obi Agu, Royal Free and University College London Hospitals
Conrad von Stempel, Royal Free and University College London Hospitals

Learning Points:

- 1) Peripheral nerve blocks (popliteal and common femoral nerve) are a useful adjunct in complex angioplasty.
- 2) These can be safely administered by interventional radiologists in the angiosuite using existing transferable ultrasound skills.
- 3) Nerve blocks may help reduce need for intravenous sedation which have independent issues with comorbid vasculopathic patients.

Background: Chronic lower limb arterial occlusion is common (up to 20% >= 65 years) and is associated with significant morbidity and mortality. Percutaneous transluminal angioplasty (PTA) is a minimally invasive technique to treat occluded lower limb arteries. It can be complex, prolonged and patients are often elderly with multiple comorbidities and poor performance status. Peripheral nerve (popliteal, common femoral and fascia iliaca) block (PNB) as an adjunct to local anaesthesia, has been proposed as a superior alternative to local anaesthesia +/- sedation. This retrospective cohort study looked at 27 PTA cases in 20 patients; comparing those who received local anaesthesia +/- sedation and opiates (n=13) versus those who received the addition of a PNB (n=14).

Aims:

- 1) To establish if PNB (popliteal, common femoral and fascia iliaca) is a safe and effective adjunct prior to PTA.
- 2) To assess if PNB is associated with any reduction in peri or post procedural sedation or analgesia.

Description of Findings / Procedure:

- 1) Both cohorts were matched in terms of demographics and comorbid disease.
- 2) PNB was not associated with any deleterious side effects or increased mortality and appears to be associated with a potential reduction in sedation dose.

Conclusion: PNB is:

- 1) Well tolerated, safe and effective.
- 2) Allows patients with comorbid disease and frailty to be treated without the need for spinal, epidural or general anaesthesia. Follow up is planned to compare post PTA Doppler appearances and patient satisfaction scores.

OP003192 - Non-surgical endovascular approach in thrombosed dialysis accesses

Maaz Khan, Royal Liverpool University Hospital Ahmed Adan, Royal Liverpool University Hospital Tze Chan, Royal Liverpool University Hospital

Aim: To evaluate the outcomes of thrombosed vascular accesses treated with non-surgical endovascular techniques as first line therapy. In our unit, all patients with thrombosed dialysis accesses were referred for percutaneous thrombectomy as a first line intervention given no contraindications. Multiple thrombectomy devices and techniques such as Angiojet, Indigo device, Trerotola device, catheter thrombolysis and balloon maceration were utilised.

Materials & Methods: A total of 163 thrombectomy procedures were identified between 2017 and 2021 from our RIS. Patient demographics and procedural data were collected and analysed. End points of the study were clinical success, technical success, primary and secondary patency rates. Log rank test were used to compare parameters e.g. vein vs PTFE, different devices etc. Post procedure, all patients enrolled into an ultrasound doppler surveillance program. Follow-up data was analysed using Kaplan Meier survival curves (SPSS 17.0).

Results: 132 thrombectomy procedures fulfilled the inclusion criteria. There were 81 arteriovenous fistulas and 46 grafts. 50% were created in the left arm with brachiocephalic access the most common (39%). The overall technical success of all intervention types used was 86%. Angiojet is the most used followed by the Indigo device. 72% of patients required stenting. The overall primary patency at 6 months, 1 year and 5 years were 53%, 40%, 15% respectively. Overall secondary patency at 6 months, 1 year and 5 years were 89%, 81% 32% respectively.

Conclusion: Non-surgical endovascular approach as a first line treatment is an effective means of re-establishing dialysis access following thrombotic occlusion with a satisfactory long term secondary patency.

Scientific Session 2: Interventional Oncology

Wednesday 2nd November 2022, 16:30-17:30, Alsh Session Chairs: Dr Peter Littler & Professor Tze Wah

SPOP003036 - Percutaneous Radiofrequency Ablation for Hepatocellular Carcinoma: A Single Centre 9-year Retrospective Cohort Study in 112 Patients

Yiwang Xu, Royal Free Hospital, London Adam Brown, Royal Free Hospital, London Neel Jain, Royal Free Hospital, London Wen Ling Woo. Royal Free Hospital, London Dominic Yu, Royal Free Hospital, London Douglas Macdonald, Royal Free Hospital, London Conrad von Stempel, Royal Free Hospital, London

Aims: To determine overall survival (OS) and disease-free survival (DFS) amongst patients who underwent radiofrequency ablation (RFA) for hepatocellular carcinoma (HCC).

Materials and Methods: All percutaneous RFA performed for HCC between 2008-2018 with ?24 months' follow-up. Lesion responses were categorised as complete response (CR), target partial response (TPR), local recurrence (LR) and non-target progressive disease (NTPD). OS was defined as the time from RFA to death, liver transplant or censorship. DFS was defined as time to first imaging evidence of LR/NTPD. Salvage treatment for LR/TPR/NTPD was also analysed.

Results: 169 ablations (in 112 patients; 79% male; median age 63).

Cohort OS: 91% at 1-year, 69% at 3-year and 55% at 5-year, with TPR and NTPD predictive of shorter OS vs CR: HR44.7/p<0.005 and HR7.66/p=0.007 respectively. 88/112 patients had recurrence in the study period. The Median DFS recurrence was 15 months. MRI as opposed to CT as the index modality immediately prior to RFA correlated with longer DFS (28 vs. 14 months, p=0.016) and remained statistically significant after adjusting for patient and technical factors (p=0.029). 26/88 patients who received salvage re-ablation have a median DSF of 15 months and OS of 83% at 1-year, 64% at 3-year and 44% at 5-year.

Conclusion: TPR and NTPD are predictors for shorter OS. CT as the index scan prior to RFA was an independent risk factor for NTPD, potentially reflecting under-staging. Salvage re-ablation demonstrates worse DFS and OS than initial ablation.

SP003066 - Safety and efficacy of thermal ablation for malignant lung lesions; retrospective case series analysis of the South Wales lung ablation service

Gill Warwick, Royal Gwent Hospital Emma Parkes, Royal Gwent Hospital Dr Alina Ionescu, Royal Gwent Hospital Dr Nimit Goyal, Royal Gwent Hospital

Aim: To quantify the efficacy and safety of percutaneous thermal ablation of malignant lung lesions delivered by the South Wales lung ablation service. Efficacy was assessed via tumour recurrence rates and overall survival. Safety was assessed via complication and readmission rates.

Materials and Methods: Retrospective case analysis of 34 patients from Aneurin Bevan Health Board undergoing 47 ablations between January 2011 and September 2020, via review of digital records until 30th November 2020.

Results: 76% of patients were aged over 65. 59% were male. 29% had a working diagnosis of primary lung cancer, 71% were treated for metastatic pulmonary lesions. Their median WHO performance score was 1. 96% of ablated lesions were under 3cm. 53% of procedures used radiofrequency ablation (47% microwave ablation). The initial success rate for completed procedures was 96% (45/47 procedures); local tumour recurrence rates at the ablated sites were 3% (1/30 patients) at 6 months, 17% (5/29 patients) at 12 months and 30% (8/27 patients) at 18 months. Median overall survival rate was 1.9 years. The initial complication rate (within 24 hours) was 18/47 (38%), two-thirds required no intervention. The pneumothorax rate was 26% and the chest drain rate 4%. The 30-day readmission rate was 6%.

Conclusion: This data shows a safety profile similar to Cochrane meta-analysis and efficacy similar to NICE guidance and adds to the body of data to support use of lung ablation for the management of primary or secondary lung cancer in appropriately selected patients.

OP003156 - Prognostic value of Neutrophil to lymphocyte ratio (NLR) and platelet to lymphocyte ratio (PLR) for small renal cell carcinomas (RCC) after image-guided cryoablation or radio-frequency ablation (RFA)

Vinson Wai-Shun Chan, University of Leeds
Aqua Asif, University of Leicester
Filzah Osman, University of Leeds
Jasmine Sze-Ern Koe, University of Leeds
Alexander Ng, University College London
Jon Cartledge, Leeds Teaching Hospital NHS Trust
Michael Kimuli, Leeds Teaching Hospital NHS Trust
Naveen Vasudev, Leeds Teaching Hospital NHS Trust
Christy Ralph, Leeds Teaching Hospital NHS Trust
Satinder Jagdev, Leeds Teaching Hospital NHS Trust
Selina Bhattarai, Leeds Teaching Hospital NHS Trust
Tze Min Wahm Leeds Teaching Hospital NHS Trust

Aim: This is the first study investigating the relationship between NLR or PLR and outcomes of percutaneous cryoablation or RFA for small RCCs with long-term outcomes.

Methods: All patients undergoing cryoablation or RFA for small RCCs (<7cm) from 2003-2016 at a regional centre for RCC were included. Optimal cut-offs for NLR/PLR were determined using the ROC curve and AUC using the Youden method. Outcomes were compared using Cox or logistic regression.

Results: 203 patients (Cryoablation:103, RFA:100) were included. Median follow-up was 75 months and 98 months, respectively. Using the Youden method, high post-operative NLR values were associated with worsened local recurrence-free survival (LRFS) (NLR >5.38; HR: 5.13, p=0.037) and worsened Overall Survival (OS) (NLR >6.42; HR: 3.40, p<0.001) in all patients. High post-operative PLR values were associated with worsened OS in all patients (PLR >192; HR: 2.31, p=0.006) and RFA patients alone (n=100; PLR >260; HR: 8.27, p<0.001). Using continuous Cox regression model, greater changes in peri-operative NLR were associated with worsened LRFS in cryoablation alone and all patients (Continous; HR: 1.09, p=0.028). Higher post-operative NLR was also associated with worsened LRFS in cryoablation patients alone (HR: 1.10, p=0.046). Post-operative NLR (HR:1.17, p=0.002), change in peri-operative NLR (HR:1.19, p=0.001), and change in peri-operative PLR (HR:1.20, p=0.009) were all associated with worsened CSS in all patients. Pre-operative PLR and NLR were not associated with complications and change in renal function.

Conclusion: NLR and PLR are valuable prognostic factors for this group of patients and should be used to guide subsequent follow-up and monitoring of recurrence.

OP003157 - Use of renal tumour biopsy prior to nephrectomy - An analysis of the British Association of Urological Surgeons Nephrectomy Outcome Data from 2012-2019

Vinson Wai-Shun Chan, University of Leeds Tze Min Wah, Leeds Teaching Hospital NHS Trust

Aims: Up to 30% of treated small renal masses (SRM) are benign. This study aims to review the use of renal tumour biopsy (RTB) for SRM in the UK and its potential benefits.

Methods: The British Association of Urological Surgeons nephrectomy audit database was enquired for SRMs (T1a/bN0M0) treated by partial or radical nephrectomy from 2012-2019.

Results: 14,828 patients are included. 1,918 patients (12.9%) received a renal tumour biopsy prior to treatment. The utilisation of RTB increased from 10% in 2012 to 16% in 2019 (p=0.464). The diagnostic rate of RTBs in the series is 96%. In patients with no missing histological data, 11% were treated for a benign mass. However, stratifying by the biopsy status, patients not undergoing RTB are more likely to be treated for a benign mass, compared to those who had an RTB. (12.3% vs 3.62%, Chi2-p:<0.001, Logistic regression: OR:3.73, 95%CI: 2.64–5.25, p<0.001). In patients with malignant tumours, RTB showed only fair concordance of Fuhrman grades with surgical specimens (kappa: 0.23). Old patients presenting with symptoms, anaemia, larger or more complex exophytic tumours are more likely to have malignant histology.

Conclusion: RTB can determine the malignant potential of SRMs to prevent overtreatment. However, treatment decisions must be made in caution using results from RTB due to its only fair accuracy in determining tumour grade. Limitations include unknown diagnostic accuracy for benign tumours in this study; patients with negative RTBs for malignancy should be risk stratified and undergo active surveillance/ repeat biopsies to exclude malignancy.

OP003158 - Oncological and peri-operative outcomes of cryoablation of renal cell carcinoma for patients with hereditary RCC diseases - An analysis of European multinational prospective EuRECA registry

Vinson Wai-Shun Chan, University of Leeds
Francis Xavier Keeley, Jr., North Bristol NHS Trust
Brunolf Lagerveld, OLVG
David J. Breen, Southampton University Hospitals
Alexander King, Southampton University Hospitals
Julien Garnon, Nouvel Hôpital Civil
Marco van Strijen, St Antonius Hospital
Des Alcorn, Gartnavel General Hospital
Ole Graumann, Odense University Hospital
Eric de Kerviler, Saint-Louis Hospital
Miles Walkden, University College London Hospitals NHS Foundation Trust
Tze Min Wah, Leeds Teaching Hospitals NHS Trust

Objectives: To report oncological and peri-operative outcomes of cryoablation of SRMs for patients with inherited RCC syndromes.

Methods: From 2015 to 2021, patients with inherited RCC syndromes with consequent SRMs undergoing percutaneous, laparoscopic, or open cryoablation from 11 European institutions within the European Registry for Renal Cryoablation (EuRECA) were included for the retrospective analysis.

Results: A total of 55 patients (age 23-83) with inherited RCC syndromes (41 VHL, 2 HLRCC, 3 HRPC, 9 BHD) with 89 tumours received cryoablation in 71 sessions, with subsequent mean follow-up duration of 30.4 months (SD 22.193). Median (IQR) RCCs per patient was 1 (1-6), with a mean tumour size of 24.5mm (SD 9.58). In 79 tumours with available follow-up data, 95% (n=75) achieved primary technical success, while overall technical success was achieved in 99% of tumours with available consecutive follow-up data (77/78). Out of 67 sessions with available intra-operative data, none had intraoperative complications. Four out of 61 sessions (6.6%) had post-operative complications, out of which two were CD-1 (post-ablations syndrome, haematuria and AKI 2), and one CD-3 (ureteric stent under GA for clot colic). Mean post-operative reduction of eGFR was 6.02 (SD 17.2). In 28 patients who had undergone 35 treatment sessions with available peri-operative eGFR, 2 patients in 3 treatment sessions had >25% reduction in renal function. LRF, MF, CS and overall survival rates are 96.2%, 96.6%, 91.7% and 91.7% respectively. **Conclusion:** Cryoablation of RCCs for patients with hereditary RCC diseases offers low complication rates, renal function

Conclusion: Cryoablation of RCCs for patients with hereditary RCC diseases offers low complication rates, renal function preservation and good oncological outcomes.

Scientific Session 3: Aorta and Venous

Thursday 3rd November 2022, 16:00-17:00, Lomond Auditorium Session Chairs: Dr Ondina Bernstein & Dr Malcolm Johnston

SPOP003099 - Correlating clinical signs of instability with imaging features and thrombolysis requirements in a patient cohort treated with catheter directed thrombolysis for acute pulmonary embolism

Sajal Patel, Guy's and St Thomas' NHS Foundation Trust
Christopher Charles Booth, Guy's and St Thomas' NHS Foundation Trust
Amit Gupta, Guy's and St Thomas' NHS Foundation Trust
Narayanan Thulasidasan, Guy's and St Thomas' NHS Foundation Trust
Boris Lams, Guy's and St Thomas' NHS Foundation Trust
Karen Breen, Guy's and St Thomas' NHS Foundation Trust
Narayan Karunanithy, Guy's and St Thomas' NHS Foundation Trust

Aims: Catheter interventions are widely used to treat acute pulmonary embolus (PE). There is a need to refine therapy protocol to optimise thrombolysis dose and duration that allows relief of acute RV strain and simultaneously minimises potential bleeding risk on a case-by-case basis. The aim of the study was to determine whether clinical and imaging features of acute PE severity correlated with thrombolysis dose and duration of therapy.

Materials and Methods: Retrospective review of patient records, imaging, procedural details, and outcomes from those managed with catheter intervention at our institution. Institutional Review Board approval was sought and waived. Clinical severity was adjudged as per National Early Warning Score (NEWS). Pre-procedure CTPA was analysed for degree of RV strain (RV:LV ratio) and pulmonary arterial occlusion score (Modified Miller Score, MMS).

Results: 67 cases (mean age 53, age range 12-86; Male:Female 32:35) met the inclusion criteria. Significant correlation was demonstrated between NEWS and duration of thrombolysis (Pearson r 0.26; p 0.0341) but not total dose of thrombolysis (Pearson r 0.14; p 0.2513). No correlation was seen between NEWS and RV:LV ratio (Pearson r 0.03; p 0.8005) or MMS (Pearson r 0.06; p 0.6109). No correlation demonstrated between RV:LV ratio and thrombolysis duration (Pearson r -0.02; p 0.8894) or dose (Pearson r -0.02; p 0.8501).

Conclusion: Clinical assessment remains the mainstay of assessment at present and correlates with CDT treatment duration. Imaging severity measures on CTPA (RV:LV ratio and MMS) are inadequate to assess treatment outcome and further studies are required to identify more sensitive prognostic parameters.

SPOP003123 - Relationship between aortic neck characteristics and technical and clinical success of EndoAnchor deployment in endovascular aortic aneurysm repair

Nadir Khan, Queen Elizabeth University Hospital Mazin Abdelaziz, Queen Elizabeth University Hospital Martin Hennessy, Queen Elizabeth University Hospital

Aims: EndoAnchors can significantly improve proximal fixation and sealing by securing the proximal endograft to the wall of neck of aortic aneurysms which has utility in treating migration and Type 1A endoleak. In this study we describe the relationship of aortic neck characteristics with EndoAnchor penetration, technical and clinical success.

Materials and Methods: Patients who had EndoAnchors deployed primarily or at a subsequent EVAR from October 2016 to January 2022 were included. Retrospective data was collected by two observers from CT angiogram regarding angulation, width, length, conicity and circumferential coverage of calcification and thrombus of infra-renal neck. Technical success was measured as minimum of 4 EndoAnchors penetrating at least 2 mm into the aortic wall. Clinical success was measured as stent migration and Type 1A endoleak.

Results: Preliminary analysis of 19 cases shows adequate number of EndoAnchor deployed with satisfactory penetration. No Type 1A endoleak or graft migration were noted in our cohort. Further analysis to assess relationship between aortic neck characteristics and success of EndoAnchor deployment is currently underway. Case examples will be shown to illustrate cases of unsuccessful EndoAnchor placement and outcomes.

Conclusion: EndoAnchors are a useful adjunct in hostile aortic aneurysm necks, with a high procedural and clinical success rate in our cohort.

SPOP003125 - Outcomes of Catheter Intervention for Acute Pulmonary Emboli in a tertiary centre with an established Pulmonary Embolism Response Team (PERT)

Sajal Patel, Guy's and St Thomas' NHS Foundation Trust
Christopher Charles Booth, Guy's and St Thomas' NHS Foundation Trust
Amit Gupta, ,Guy's and St Thomas' NHS Foundation Trust
Narayanan Thulasidasan, Guy's and St Thomas' NHS Foundation Trust
Boris Lams, Guy's and St Thomas' NHS Foundation Trust
Karen Breen, Guy's and St Thomas' NHS Foundation Trust
Narayan Karunanithy, Guy's and St Thomas' NHS Foundation Trust

Aims: Determine the outcome of patients treated with catheter interventions as per published recommendations for management escalation by the PERT Consortium.

Materials and Methods: Retrospective review of patient records from those managed with catheter intervention April 2012 - March 2022. Risk stratification was performed as per published European Society of Cardiology guidelines. Patient demographic, presentation imaging, procedural details and outcomes were analysed. Institutional Review Board approval was sought and waived.

Results: 72 cases (average age 52, range 7-86; Male:Female = 35:37) met the inclusion criteria and were analysed. 51 patients were high-risk and 21 intermediate-high or intermediate-low risk. 88% of high-risk cases and 76% of intermediate risk cases had a documented contraindication or a failed trial of systemic thrombolysis or anticoagulation prior to commencing catheter interventions. The mode of catheter intervention was Ultrasound Assisted Catheter Directed Thrombolysis (UACDT) in 66/72 (92%) and CDT only in 6/72 (8%). Adjunctive mechanical thromboaspiration was performed in 3 high risk cases with strong contraindications to thrombolysis. The 7 and 30-day outcomes were: PE related mortality - 1/72 (1%) and 4/61 (7%). All-cause mortality - 5/72 (7%) and 5/61 (8%). Non-fatal symptomatic/confirmed PE recurrence - 3/72 (4%) and 3/61 (5%) International Society on Thrombosis and Haemostasis (ISTH) major bleeding - 12/72 (17%) and 1/61 (2%), Ischaemic or haemorrhagic stroke - 3/72 (4%), 3/61 (5%)

Conclusion: In a carefully selected patient cohort where the prognosis is poor, catheter intervention leads to good 7 and 30 day clinical outcomes. Whilst mostly self-limiting, there remains a potential for bleeding complications with a predominantly CDT approach.

SP003199 - TIPSS: Outcomes at a University hospital in England

Dr. A. Zafar, University hospitals of Coventry and Warwickshire Dr. A. Hamza, University hospitals of Coventry and Warwickshire Dr. E. Unitt, University hospitals of Coventry and Warwickshire Dr. J. Wong, University hospitals of Coventry and Warwickshire Dr. S. Neelakantan, University hospitals of Coventry and Warwickshire Dr. M. Dhillon, University hospitals of Coventry and Warwickshire

Aims: Trans-jugular Intrahepatic Portosystemic Stent Shunt is a percutaneous method to treat the complications of portal hypertension. It has been suggested that it should be performed in high volume centres, performing greater than 10 TIPSS per year. About 3 to 5 TIPSS procedures are performed per year at our unit. This study aimed to assess the outcomes of TIPSS at our unit.

Materials and Methods: Retrospective review of records of patients who underwent TIPPS procedure between 2007 and 2020. Follow up data was collected till the patient received a liver transplant or death occurred. A covered stent graft was used for all cases.

Results: Thirty-eight patients underwent TIPPS. The average age was 56 years and 63% were males. The average MELD score was 12. Technical success, hemodynamic success and clinical success were 100%, 93% and 82%, respectively. Two (5%) patients developed a minor complication, 3 (8%) had a major complication and 1 death occurred within 30 days post-TIPSS. Thirty-seven per cent developed encephalopathy. Primary patency of TIPSS at 6, 12, and 24 months was 94%, 91% and 87%. Overall survival at 6, 12, and 24 months was 90%, 73% and 50%. Only Age >65 was significantly associated with poorer survival, HR 3.1 (95% C.I. 1.1 to 8.6), among the various predictors analysed. Four patients underwent a liver transplant. One patient required TIPSS reversal due to encephalopathy.

Conclusion: TIPSS can be safely performed in a small volume centre with outcomes comparable to the literature.

SP003199 - UK eperience of Manta Closure device for percutaneous EVAR

Russel Donovan, Kent and Canterbury Hospital Neelanjan Das, Kent and Canterbury Hospital Akash Prashar, Kent and Canterbury Hospital

Aims: Percutaneous EVAR is now established procedure. Percutaneous arterial access is quicker to establish and leads to quick recovery following EVAR procedure. We present our experience of using Manta closure device and retrospectively evaluate its safety and efficacy during percutaneous EVAR procedure.

Materials and Methods: During Feb 2021 – March 2022 a total of 81 EVAR procedures were performed. Data was collected prospectively as a part of EVAR data and analysed retrospectively. In 52/81 patients i.e. 96 groin we used Manta closure device including 4 ruptured aneurysms.

Results: 49 M: 3F patients with median Age of the 78 years had percutaneous EVAR using Manta as closure device. 94 groins were closed with Manta closure device. 4% deployments (4/94) had failure, 3 requiring d surgical cut down and closure. In 1 patient second Manta device deployment achieved satisfactory haemostasis. Two out of the three patients requiring surgical cut down had scarred groin due to previous cardiac and aortic procedures. 4% (4/90) deployments had mild ooze which settled with manual pressure. No death related to severe haemorrhage from device failure. No groin infection, seroma or haematoma formation were noted.

Conclusion: Manta closure device is quite safe and easy to deploy with overall success rate > 90-95%. There is a short learning curve. Ultrasound assessment and precise puncture at the healthy section of femoral artery are the key to achieve successful haemostasis with Manta closure device.

OP003128 - National survey of radiation doses during endovascular aortic interventions

Mo Hamady, Imperial College-London Dr Raghu Lakshminarayan, Hull Prof. Andy Rogers, Nottingham University

Aim: Currently, reference dose/s (DRLs) pertinent to EVAR/fEVAR/TEVAR/BEVAR and other complex aortic work do not exist with a wide variation in doses delivered to patients. This retrospective study is to generate suggested national reference doses for endovascular aortic repair and allow each centre to assess their doses against this standard.

Method: Pseudonymised data from 23 centres where IR contributes routinely to aortic work will be collected, covering a 4-year period from January 2018 until December 2021. The data will include demographics, procedure complexity, screening and procedure times, machine characteristics, number of angulations and magnifications and IR experience (< 5 vs > 5 years). **Results:** As of 1st April, data received from 9 centres include 1,695 procedures. Data from other 14 centres are awaited. Variations in practice and 75 percentile upper dose for each procedure complexity will be reported.

Conclusion: National DRLs for each aortic intervention will be suggested. Areas for future research will be recommended.

SPOP003198 - Tertiary centre experience of renal transplant angioplasty

Vishnu Naidu, Royal Free Hospital Rushabh Shah, Royal Free Hospital Ajay Singaravelou, Royal Free Hospital Anthie Papadopoulou, Royal Free Hospital

Aim: To evaluate changes in blood pressure and creatinine levels pre and post procedure in patients with transplant renal artery stenosis (TRAS). To investigate the time taken for patients to present for diagnosis of TRAS.

Materials and methods: A retrospective analysis of all patients undergoing renal transplant angioplasty was performed for the previous 5 years at the Royal Free Hospital London, from 22/4/2017 to 22/4/2022. A total of 39 patients were included in the study and data on demographics, pre/post procedural blood pressure/creatinine levels and balloon diameters were collected. **Results:** The mean age of patients undergoing renal transplant angioplasty was 60.9 years. Patients were mainly referred for investigation/ treatment as a result of resistant hypertension +/- peripheral oedema as well as raised creatinine levels within an average of 11.7months. An average balloon diameter of 4.7mm was used. Two patients required a repeat procedure due to refractory blood pressure and recurrent symptoms after the initial angioplasty. The mean pre and post-procedural systolic blood pressures were 153mmHg and 141mmHg respectively (t= -1.55 p=0.14). The mean pre and post-procedural diastolic blood pressures were 82mmHg and 75mmHg respectively (t=-2.76, p=0.01). Creatinine levels fell from 295umol/L to 167umol/L (t=1.2 p=0.24).

Conclusion: Angioplasty for TRAS in our centre is an efficacious method to treat symptomatic renal artery stenosis and to reduce blood pressure, significantly so in the diastolic parameter. A reduction in creatinine levels is also demonstrated, albeit without statistical significance.

Scientific Session 4: Aorta and Venous Non-Vascular/HPB/Renal/Urology

Thursday 3rd November 2022, 16:00-17:00, Alsh Session Chairs: Dr Georgia Priona & Dr Ram Kasthuri

SPOP003084 - Extra-anatomic ureteric stent as an alternative to long-term nephrostomy

Nisha Pindoria, Wexham Park Hospital Kunal Khanna, Wexham Park Hospital Mohamed Elmubarak, Wexham Park Hospital Jane Kilkenny, Wexham Park Hospital Mohammed Dallash, Wexham Park Hospital Jeetesh Bhardwa, Wexham Park Hospital

Aim: The aim of this study was to assess extra-anatomic stents (EAS) as a suitable alternative to lifelong nephrostomy. EAS are used to bypass chronic ureteric obstruction and considered when surgery or ureteric stenting have failed or deemed inappropriate due to patient's co-morbid status and/or frailty. Traditionally, a percutaneous nephrostomy is considered in such settings.

Material and Methods: Case notes of all patients who underwent EAS were reviewed (n=10) between May 2019 to March 2021. All patients were followed up for a minimum of 6 months. The procedure was performed by an Interventional Radiology Consultant and Consultant Urologist with special interest in Endourology. Patient demographics, indication for intervention, previous treatment, intra and post-operative complications, pre and post-operative bloods and follow-up schedule was collated.

Results: Overall 13 EAS were inserted into 10 patients. Indications for treatment included malignant obstruction in 9 patients and benign ureteric stricture in a solitary kidney in 1 patient. 6 patients required EAS due to failed stent. 4 were unable to be stented and underwent primary EAS. 2 post-operative complications were reported, graded as Clavien-Dindo II.

Conclusion: In appropriately selected patients EAS offers an acceptable alternative to percutaneous nephrostomy for urinary diversion. It is attributed to good functional outcomes with minimal adverse events when compared to alternatives.

Patients also report improved quality of life compared to lifelong nephrostomy. Overall, consideration of EAS should be individualised according to underlying aetiology of obstruction, salvage treatment options and patient factors including competing comorbidities and performance status.

SPOP003093 - Stenting of the Cystic Duct in Benign Disease

Name: Ahmad Barotchi, Sheffield Teaching Hospitals NHS Foundation Trust Name: Dr Naomi Hersey, Sheffield Teaching Hospitals NHS Foundation Trust

Purpose: There have been very few case reports describing cystic duct stent insertion in the management of acute cholecystitis secondary to benign disease. Recent NICE (National Institute for Health and Care Excellence) guidelines (March 2022) state evidence is inadequate in both quality and quantity. Our group published a case series of 33 patients (Hersey et al. Cardiovasc Intervent Radiol. 2015 Aug;38(4):964-70). We present our updated and extended series demonstrating the role of cystic duct stents in managing gallbladder disease in those patients unfit for surgery.

Materials & Methods: 57 patients in our institution underwent cystic duct stent insertion for the management of acute cholecystitis in the period June 2008 to January 2019. Patients underwent a mixture of direct and transhepatic gallbladder puncture. The cystic duct was cannulated with a hydrophilic guidewire which was subsequently passed through the common bile duct and into the duodenum. An 8Fr double pigtail stent was placed with the distal end lying within the duodenum and the proximal end within the gallbladder.

Results: 14 patients presented with gallbladder perforation, 38 with gallbladder empyema/cholecystitis, 4 with cholangitis and 1 with necrotising pancreatitis. The technical success rate was 91%. Two patients developed acute pancreatitis post procedure. One patient experienced subsequent episodes of acute cholecystitis and cholangitis. Overall complication rate was 17.5% with 7% mortality rate at 30 days.

Conclusion: Cystic duct stent insertion can successfully be used to manage acute cholecystitis or gallbladder perforation in those unfit for surgery and should be considered alongside external gallbladder drainage.

SPOP003095 - ReCAAP (retrograde CBD access with anterograde puncture) technique to cross challenging biliary strictures and leaks

Stefan Lam, West Hertfordshire Teaching Hospitals NHS Trust Leyla Mohammed, Barts Health NHS Trust Diana Velazquez-Pimentel, Barts Health NHS Trust Jimmy Kyaw-Tun, Barts Health NHS Trust Tim Fotheringham, Barts Health NHS Trust

Aims: Attempts to cross biliary strictures or post-operative leaks can be performed percutaneously, endoscopically, or a combination of both, with varying success rates. When these techniques are unsuccessful, surgical bypass is often not feasible and permanent external biliary drainage carries risks. This is a retrospective review of cases using the ReCAAP technique – combined anterograde transhepatic access with secondary, retrograde common bile duct (CBD) access – which was used to cross resistant strictures or leaks to allow for drainage and stenting.

Materials and Methods: Between 2010 and 2021, the ReCAAP technique was performed on 19 patients (12M, 7F), with a mean age of 57 (17-81), who had unsuccessful attempts via transhepatic approach to cross a biliary stricture and/or leak. Conventional transhepatic access was obtained using ultrasound and fluoroscopy. Retrograde CBD puncture was performed with a 21-22gauge needle under fluoroscopic guidance. An initial retrograde attempt to cross the stricture was made with an 0.018 guidewire, and if this failed, further attempts with a catheter (2.7-5Fr) were made and the guidewire was snared from the transhepatic access to gain through-and-through access.

Results: The ReCAAP technique was technically successful in 100% of cases and anatomical drainage and stenting was achieved. No post-procedural bile leak or other complications were observed both clinically and on imaging studies.

Conclusion: Using secondary extrahepatic biliary access to facilitate conventional transhepatic access procedures does not appear to carry a significant risk of an intraperitoneal bile leak. The ReCAAP technique is useful technique when traversing challenging biliary strictures and leaks and has a high technical success rate.

SPOP003119 - Re-intervention rates are high when treating benign oesophageal strictures with biodegradable stents

Dr Joseph Keighley, Royal Sussex County Hospital, Brighton Dr Dhiraj Joshi, Royal Sussex County Hospital, Brighton

Aims: Benign oesophageal strictures (BOS) can cause significant dysphagia. Refractory strictures may be treated with insertion of biodegradable stents (BDS). Many studies have analysed the safety and efficacy of BDS. However, the reported rate of reintervention is unclear. The aim of this study is to analyse the incidence of re-intervention following BDS insertion.

Materials and methods: This is a retrospective non-randomised single arm study, with data collected prospectively from a single interventional radiology unit over a 6 year period. Patient characteristics, procedure success, complications of treatment and re-intervention rates were analysed.

Results: BDS were successfully inserted in 27 patients with BOS (16 female, 11 male; average age 69 years). There was improvement in dysphagia in all but one patient (96%). 17 patients (63%) did not require repeat BDS insertion. 10 patients (37%) required repeated BDS insertion; of these, four patients required 2 stents, three patients required 3 stents, two patients required 4 stents, and one patient required 22 stents. The average interval between stent insertion was 134 days, with a minimum of 7 days (early stent migration) and a maximum of 767 days (the patient underwent multiple dilatations in the intervening period). The most common side effects were retrosternal pain, vomiting, reflux and stent migration. There was no peri-procedural mortality.

Conclusion: BDS insertion is a safe and effective treatment option for patients with BOS refractory to mechanical dilatation. However, symptoms recur in a large proportion of patients requiring re-intervention. This could be a focus for future improvements in stent technology.

EP003152 - Practical lessons learnt from an audit and 5-years of experience from a low volume tertiary centre performing TIPS procedures

Neel Doshi, Oxford University Hospital NHS Foundation Trust Dan Kearns, Oxford University Hospital NHS Foundation Trust Tina MacKinnon, Oxford University Hospital NHS Foundation Trust

Learning Points:

- 1. Low volume centres can produce outcomes similar to high volume centres.
- 2. The importance of adhering to strict clinical thresholds in terms of Child-Pugh scores, correct documentation of portal venous pressures and appropriate MDT follow up with Hepatology teams correlate to positive clinical outcomes.
- 3. Early/ Pre-emptive TIPS procedures in patients with lower Child-Pugh scores improve survival rates through reduced post-operative complications.

Background: The Office for National Statistics (2018) report severe liver disease as the leading cause of deaths for patients aged 35-49 (>10%). A significant cause for morbidity (e.g. refractory ascites) and mortality (e.g. variceal haemorrhage) is a consequence of portal hypertension. TIPS involves creating a shunt between the portal and hepatic vein as a salvage therapy. **Description of Findings:** Analysis of 43 procedures over a 5-year period revealed variceal haemorrhage (47%, n=20) and refractory ascites (33%, n = 14) as the most common indications for this procedure. Emergency variceal haemorrhage accounted for 19% (n=8) and secondary prevention accounted for 28% (n=12). Follow-up revealed a 1-year survival rate of 71% - modestly greater than the 48–55% survival rates documented in the literature. There was a correlation between lower Child-Pugh scores and lower mortality – with associations between early preventative TIPS (9%, n=4) and improved post-operative outcomes. We also reported 0 procedures performed on patients with Child-Pugh scores greater than 13 as per national standards.

Conclusion: Our experiences show low-volume centres can produce survival outcomes similar to higher volume centres through adherence to national guidance. Our post-operative outcomes make arguments in favour of early/ pre-emptive TIPS – however it is important consider the low sample size, possible lead time bias and need for higher quality studies to validate these findings.

SPOP003097 - Long term patient outcomes following biopsy of a small renal mass

Shyamal Patel, St Georges University Hospitals NHS Foundation Trust

Aims: Growing use of cross sectional imaging has increased detection of small renal masses (SRM – enhancing tumours <4cm in diameter). Most are incidental and approximately 25% are benign. Imaging cannot reliably differentiate these from a renal cell carcinoma and percutaneous biopsy is common to guide further management. Little is known regarding the long term patient outcomes following biopsy of SRM. We aim to provide our experiences of these outcomes which can be utilised when consenting patients, allowing for informed decisions.

Materials and methods: Single centre retrospective review of adult patients between October 2008-October 2016 who underwent image guided percutaneous biopsy for a SRM. The Radiology Information System and Electronic Patient Records were used for data collection.

Results: 103 percutaneous biopsies for SRM were performed with 11 non-diagnostic samples. Of the remaining 92 patients, 24% were benign and 65% were malignant. Of the benign SRMs, 92% underwent active surveillance with 8% undergoing cryotherapy. Of the malignant subset, 12% underwent active surveillance, whilst 88% had active treatment (37% surgery, 42% ablation and 9% chemotherapy). 32% of the total cohort have been discharged and 34% remain under surveillance.

Conclusion: Our study suggests that 24% of SRMs were benign, reinforcing the need for biopsy to guide management. Patients should be counselled even when benign, they may require further imaging. After an interval of 5 years, equal proportions of patients were discharged as are undergoing surveillance. Due to the higher possibility of achieving a cure and tissue preserving nature of the interventions, most patients underwent surgery/ablation.

Scientific Session 5: Embolisation

Friday 5th November 2022, 10:00-11:00, Lomond Auditorium Session Chairs: Dr Anthie Papadopoulou & Dr James Briggs

SPOP003114 - Diagnostic and therapeutic intranodal lymphangiography (ILAG) for chyle leaks - experience at two large specialist tertiary centres

Alan Campbell, University College London Hospitals NHS Foundation Trust
Matthew Seager, King's College Hospital NHS Foundation Trust
Richard Hesketh, University College London Hospitals NHS Foundation Trust
Julian Hague, University College London Hospitals NHS Foundation Trust
Jowad Raja, University College London Hospitals NHS Foundation Trust
Jocelyn Brookes, University College London Hospitals NHS Foundation Trust
An Ngo, University College London Hospitals NHS Foundation Trust
Conrad von Stempel, University College London Hospitals NHS Foundation Trust

Aims: To describe technical and clinical outcomes in diagnostic and therapeutic intranodal lymphangiography and embolization in the management of iatrogenic and idiopathic chyle leaks.

Materials and Methods: All patients undergoing diagnostic and/or therapeutic ILAG were identified as part of a retrospective observational unmatched cohort study. Their imaging, procedure and follow up records were collated and analysed. Follow up was for minimum 12 months. Specific data analysed, where recorded, included: indication for ILAG, number of ILAG procedures performed, volume of sclerosing agent, additional embolisation procedures required, drainage output and outcomes at follow up (imaging and/or clinic based).

Results: 13 patients with chyle leaks (2 post neck lymph node dissection, 2 nephrectomy, 2 chyluria, 4 post thoracic/oesophageal surgery, 3 post intrapelvic lymph node dissection). Follow up was for a median of 21 weeks (range 1 week to 1 year). 3 patients died during follow up, 2 from unrelated causes. Technical success in 10 of 13 patients (including one who subsequently died). 4 cases required at least one repeat ILAG, either due to failure to demonstrate leak or failure to resolve, 2 of which plus 1 further case required an additional procedure, thoracic duct embolisation or cisterna chyli needle embolisation/disruption. 2 of these cases remained unresolved. Median and mean recurrence free survival was 90 and 89 weeks, respectively, with a range of 39 weeks to 4.5 years.

Conclusion: ILAG is a safe and well tolerated diagnostic and potentially therapeutic technique. Repeat ILAGs may be performed and multi-step procedures can lead to resolution.

SPOP003115 - Clinical Outcomes of Pelvic Vein Embolisation for the Treatment of Pelvic Venous Congestion Syndrome (PVCS) - A Single Centre Experience

Gayathri Angela Yogarajah, Surrey and Sussex Healthcare NHS Trust Sandeep Singh, Surrey and Sussex Healthcare NHS Trust Kumuthine Sivasithamparam, Surrey and Sussex Healthcare NHS Trust Ajay Pankhania, Surrey and Sussex Healthcare NHS Trust

Aims: Pelvic venous congestion syndrome (PVCS) is a constellation of painful, predominantly lower abdominal and perineal symptoms experienced as a result of chronic venous obstruction of the ovarian and pelvic veins. This can cause numerous debilitating symptoms. Presence of pelvic venous reflux does not always cause patient symptoms; thus, our objective was to determine if pelvic vein embolisation (PVE) as a treatment for PVCS resulted in satisfactory patient outcomes with notable symptomatic relief.

Materials and Methods: A retrospective review was conducted of patients who underwent pelvic vein embolisation between January 2018-October 2021 with patient evaluation of the severity of their pre-embolisation symptoms with those experienced post-embolisation. Data collection included evaluation of bowel/urinary/leg symptoms, in addition to dysmenorrhea, dyspareunia, menorrhagia and pelvic/vulval heaviness/pain, with patients reporting either "good", "mild" or "no improvement" in symptoms. **Results:** A total of 52 female patients aged 18-73 years (mean 43.8) underwent PVE between January 2018-October 2021. 39 patients (75%) underwent a single PVE, whilst 12 patients had a repeat procedure performed and 1 patient had 3 embolisation procedures. Vulval foam therapy was performed in 8% of patients (n=4). Overall, 43 patients (83%) reported "good" or "mild improvement" in symptoms post embolisation, with "no improvement" reported in 9 patients (17%). 94%, 92% and 80% of patients reported improvement in symptoms relating to menorrhagia, dysmenorrhea and dyspareunia, respectively. Relief of urinary and bowel symptoms were achieved in 86% and 77%.

Conclusion: Pelvic vein embolisation is an effective treatment in providing symptomatic improvement in patients with PVCS.

SPOP003149 - Erectile function after treatment for non-ischemic priapism

Rohaan Shahzad, UCL Patrick Gordon, UCLH David Ralph, UCLH Miles Walkden, UCLH Conrad von Stempel, UCLH and RFH

Aims: Non-ischemic priapism (NIP) is a rare subtype of priapism that arises from a straddle injury leading to the formation of an arterial-venous sinusoidal fistula (AVF) and partial penile tumescence. NIP can be managed conservatively, with arterial embolization, or, rarely, with surgical arterial ligation. These treatments have varying rates of success and post-treatment erectile dysfunction (ED). This is a single-centre retrospective study to determine the the long-term erectile function (EF) in a men undergoing treatment for NIP.

Material and Methods: 23 patients were followed up after resolution of NIP for a median of 61 months (9-186 months). NIP was diagnosed with a clear history of trauma, arterial oxygen tension corporal blood gas and Doppler assessment. EF assessed using the abbreviated International Index of Erectile Function (IIEF) questionnaire; ED was defined as a score? 25 and/or the use of pharmacological adjuncts.

Results: Median age 26. 21 patients were treated with selective embolization; 2 cases were managed conservatively with compression and weekly Doppler until resolution. 13 required repeat embolization due to early recurrence. Embolic choice depended on AVF features but gelfoam and coils were most commonly used. Median IIEF-EF score of 28 at last follow up (5-30), and 4 patients (17.4%) reported using pharmacological adjuncts. 10 patients (48%) were found to have ED at follow-up in the embolization group.

Conclusion: Over 50% of this cohort returned to normal EF; although 48% had an element of ED, the majority of these men had useable erections.

SP003039 - Blunt Splenic Trauma in a Level 1 Trauma Centre: The expanding role of splenic artery embolization over 10 years

Niaz Ahmed, Royal London Hospital Vishnu Parameshwaran, Royal London Hospital Deborah Low, Royal London Hospital

Aims: There is an increasing role for splenic artery embolization (SAE) in the management of high grade traumatic splenic injuries. A review of SAE rates and outcomes at a level 1 trauma centre in patients with blunt splenic trauma was carried out and compared to a previous review within the last decade to demonstrate changes in practice.

Materials and Methods: A retrospective review of patients with splenic injuries secondary to blunt trauma between January 2018 and December 2021 was performed. The revised 2018 AAST grading score was used to grade injuries. This was compared to a previous review from February 2012 to May 2015.

Results: 212 patients with splenic injury secondary to blunt trauma were identified from January 2018 to December 2021. Of these patients, 131 had a high-grade injury (AAST 3-5) with 96 of these patients being managed non-operatively. Of these patients, 55 underwent SAE (57%). This is a marked increase when compared to the previous review where SAE was performed in 13 out of a total of 45 patients with high grade splenic injury (29%).

During this time period SAE procedures had a 96.4% technical success rate (n=53/55) and a 94.3% clinical success rate (n=50/53) with only 3 patients requiring surgical splenectomy despite embolization.

Conclusion: The rate of patients with high grade splenic injury managed with SAE has approximately doubled over the last decade from 28% to 57% at our level 1 trauma centre. It is safe and efficacious with no evidence of increase in complications or delayed splenic rupture.

OP003102 - Bronchial artery embolisation - 14 year single centre experience

Joo-Young Chun, St George's University Hospital NHS Foundation Trust Helen Bucknall, St George's University Hospital NHS Foundation Trust Robert Morgan, St George's University Hospital NHS Foundation Trust Leto Mailli, St George's University Hospital NHS Foundation Trust Lakshmi Ratnam, St George's University Hospital NHS Foundation Trust

Aims: The aim of this study is to evaluate the outcomes of bronchial arterial embolization (BAE) in the management of haemoptysis and to identify any risk factors for poor outcome.

Methods: A retrospective analysis of medical records and imaging was carried out in all patients who underwent BAE between 2007 and 2021.

Results: 76 patients underwent 89 BAE procedures in the 14-year period. The most frequent causes of haemoptysis were bronchiectasis (25%), malignancy (18%), aspergilloma (13%) and active tuberculosis (7%). Technical success with immediate cessation of haemoptysis was achieved in 76 procedures (85%) and clinical success with haemoptysis control during the same admission in 75 (85%). Haemoptysis recurred in 27 cases (30%) and 15 patients required repeat embolization (20%). Aspergilloma was identified as a risk factor for haemoptysis recurrence (p<0.05). Seven patients died from massive haemoptysis (9%) and three of these patients had aspergilloma. Complications included 6 cases of stroke (6.7%), one ipsilateral lower limb weakness and 4 transient chest pain. Patients who suffered a stroke all presented with active infection as the underlying cause of haemoptysis including aspergilloma, bacterial pneumonia and active TB.

Conclusion: In conclusion, BAE is effective in haemoptysis control at least in the short term. However, haemoptysis does recur and early intervention with repeat embolization and source control are recommended, especially in patients with aspergilloma. The risk of stroke is not to be underestimated and patients should be counselled for this risk prior to undertaking BAE.

OP003108 - Cadaveric and angiographic anatomical considerations in the genicular arterial system: I mplications for Genicular Artery Embolisation in patients with knee osteoarthritis

Aiden O'Grady, Keele University Prof Mark Little, UniversityRoyal Berkshire NHS Foundation Trust

Aims: Genicular artery embolisation (GAE) is a novel treatment for patients with knee osteoarthritis (OA). Cadaveric dissection was undertaken to provide a complete description of the relevant arterial anatomy in order to perform safe and effective GAE. **Materials and methods:** Twenty human lower limb specimens were dissected. The morphology of the genicular arteries and their anastomotic connections were recorded and compared with angiographic images from patients having undergone GAE. Vessels were measured to investigate the risk of non-target embolisation (NTE), taking a diameter of 300 microns as the threshold for significance.

Results: The descending genicular artery (DGA) is the dominant vessel in medial OA, with 95% of cases revealing vessel division into muscular, saphenous and osteoarticular branches from a single pedicle. The superior medial genicular artery (SMGA) had a shared origin with the middle genicular artery (MGA) in 25% of cases. NTE to the MGA may damage the cruciate ligaments. In 85% of cases, there was an anastomosis between the DGA and SMGA, often encountered at angiography. The mean diameter of the anastomoses was 850 micron, presenting a risk for NTE. An anastomosis between the Inferior Medial Genicular Artery (IMGA) and medial sural artery was found in 5% of cases; the medial sural artery supplies blood to the tibial nerve and should be avoided. The IMGA and inferior lateral genicular artery supplied the patellofemoral joint in 69% and 88% of cases, respectively. **Conclusion:** In-depth knowledge of genicular artery anatomy is required for interventional radiologists to perform safe and effective GAE in patients with knee osteoarthritis.

Scientific Session 6: Governance/Audit/Farrago

Friday 5th November 2022, 10:00-11:00, Alsh Session Chairs: Dr Lakshmi Ratnam & Dr Costa Tingerides

SPOP003112 - A Three-year Comprehensive Stroke Centre Development Journey: Improving Door-to-Groin Puncture Time and Patient Outcomes for Mechanical Thrombectomy in Nottingham University Hospitals

Joshua Wong, Nottingham University Hospitals NHS Trust Siang Liang Chan, Nottingham University Hospitals NHS Trust Ashit Kumar Shetty, Nottingham University Hospitals NHS Trust

Aims: In patients with strokes caused by large vessel occlusions, delays in door-to-groin puncture time (DGPT) are associated with worse clinical outcomes. Nottingham University Hospitals (NUH) provides the East Midlands' Mechanical Thrombectomy (MT) service. We present results from a series of changes leading to the development of the NUH Comprehensive Stroke Centre with a view to show improvement in DGPT and patient outcomes.

Materials and methods: 242 patients admitted from eight hospitals across the Trust's referral network underwent MT between January 2019 and January 2022. The development of the NUH Comprehensive Stroke Centre included:

- relocating the stroke services from Nottingham City Hospital to Queens' Medical Centre (QMC), a major trauma centre where interventional services including MT and neurosurgery are based, and
- the integration of stroke assessment within the QMC Emergency Department pathways

Results: Comparing the outcomes before (n=131) and after (n=111) our interventions in patients with a mean age of 69.9 and 70.2 years respectively demonstrated:

- 1. Reduction in DGPT time from 5.6 to 3.4 hours
- 2. Improvement in the modified Rankin Score on discharge from 3.71 to 3.67
- 3. NIHSS improvement at 24 hours post-MT from 8.43 to 8.46

Conclusion: Our interventions led to a reduction in DGPT time and better functional outcomes. A comparable NIHSS improvement may be due to an increase in the proportion of patients eligible for MT (e.g. change in selection criteria to beyond 6 hours after symptom onset). Further studies are required to establish the effects of our interventions in the long term.

SPOP003132 - Streamlining Day Case Procedures: Tailoring Recovery to the Patient

Katyayni Jha, King's College London
Dhivya Suresh, King's College London
Waad Attafi, King's College London
Sajal Patel, Guy's and St Thomas' NHS Foundation Trust
Shahzad Ilyas, Guy's and St Thomas' NHS Foundation Trust
Athanasios Diamantopoulos, Guy's and St Thomas' NHS Foundation Trust

Aims: As a tertiary centre for multiple conditions, our department performs repeat procedures on certain patients. These patients are well informed and wish to be discharged when they deem themselves recovered. In addition, hospitals face huge patient backlogs following delays caused by COVID-19. Shadowing in Interventional Radiology (IR) as part of a medical student project revealed that lack of recovery space was a rate-limiting step in theatre turnover.

We investigated whether patients undergoing repeat procedures had shorter recovery periods with a view to exploring tailored Enhanced-Discharge Pathways (EDPs).

Material and Methods: Data regarding day-case procedures was obtained from patient tracking software. 215 cases were reviewed. Data was subdivided into patients who had undergone the procedure once versus more than once.

Results: The results are listed below as procedure: average single recovery time; average repeat recovery time (hh:mm). Sclerotherapy: 02:43; 02:01. Oesophageal Dilatation: 02:08; 03:25. Nephrostomy exchange: 03:47; 03:11. There is a trend for the repeat patients to require a shorter recovery period in the sclerotherapy and nephrostomy exchange cohorts. The same trend is not seen in those undergoing oesophageal dilatation due to differing discharge criteria.

Conclusions: There is need to increase efficiency to reduce backlogs in IR. Facilitating reduced recovery times in patients who are well-versed in their condition and procedure is advantageous to the department and patient. However, this process needs to be formalised to ensure compliance and safety. We propose that identification of these patients and facilitation of an EDP could increase patient turnover. Further exploration is required to determine specific discharge criteria for tailored EDPs in specific cohorts.

OP003053 - IR BITES Interventional Radiology Medical School Curriculum Teaching Programme

Chris Grieco, Musgrove Park Hospital, Taunton Dr Mihir Rao, Leeds Teaching Hospitals Trust Dr Nick Lorch, Leeds Teaching Hospitals Trust Ms Lucy McGuire, Glasgow Medical School Dr Indrajeet Mandal, Oxford University Hospitals Dr Niall Burke, NHS Lothian, Edinburgh

Background: This teaching series was intended to help medical students and junior doctors develop this knowledge of Interventional Radiology based on the CIRSE medical student curriculum. Remote education was predominantly provided by UK-based radiology consultants and registrars.

Methods: This series was presented as webinars via Medall both live and on demand. Each session consisted of a 30-45 minute webinar accompanied by an 'IR BITE' crib sheet to be used as a reference guide. Attendees were a range of Medical Students and Doctors at various stages. The impact of the intervention was assessed by collecting feedback from attendees after the event to provide evidence of the efficacy of the IR BITES series as a teaching tool.

Results: 1. 96.7% of attendees agreed IR BITES increased their awareness of Interventional Radiology. 2. 172 people attended live and whereas 214 watched IR BITES 'On Demand'. The overall usefulness of the IR BITES content was rated 4.3/5. 3. 85.8% of attendees stated IR BITES increased the likelihood of them pursuing IR as a specialty.

Conclusions: 1. IR BITES has raised Medical Students' and Junior Doctor's awareness of Interventional Radiology. 2. IR BITES has increased the likelihood of attendees pursuing Interventional Radiology as a specialty. 3. The use of MedAll as an all-encompassing medical education platform has enabled delivery of high quality virtual live teaching sessions that have now been crystallised as an On Demand educational resource for the benefit of future students and doctors.

Limitations: One of the sessions was cancelled due to speaker unavailability therefore data is only valid for 11 of the 12 proposed sessions. On post-series data analysis, pre-event feedback was not available for all the sessions due to limitations of the event hosting platform. N.B. These limitations have led to revised results and conclusions

OP003100 - Extended roles in IR - a new model for care

Joo-Young Chun, St George's University Hospital NHS Foundation Trust Helen Bucknall, St George's University Hospitals NHS Foundation Trust Lottie Lewis, St George's University Hospitals NHS Foundation Trust Lakshmi Ratnam, St George's University Hospitals NHS Foundation Trust Leto Mailli, St George's University Hospitals NHS Foundation Trust Raj Das, St George's University Hospitals NHS Foundation Trust

Aims: To demonstrate how the role of an Advanced Practice Radiographer and a Physician Associate enhance the efficient delivery of care in an Interventional Radiology (IR) department in a busy level 1 trauma centre and teaching hospital in London. **Methods:** A business case was drawn up to meet an ever-increasing demand for IR services that covers the SW London network. As part of this, two new extended roles were created in the IR department to meet two main objectives: First, to facilitate delivery of cases that enhance cancer pathways and expedite patient discharge. These include biopsy, drainage, vascular access and feeding tubes. Second, to assist with the clinical aspects of a busy IR unit by acting as a liaison between IR and referring clinical teams, akin to a CNS role.

Results: Through appropriate selection of applicants with relevant experience, an Advanced Practice Radiographer and Physician Associate were appointed 2021. Their clinical role includes a dedicated US guided biopsy and drainage list and they regularly assist more complex IR cases. They attend MDTs in their chosen specialist areas, liaise with clinical teams to schedule and organise admission/discharge/follow-up and assist with monthly IR morbidity & mortality meetings. A programme of support through training and appraisal are in place to supplement structured self-centred learning and reflection.

Conclusion: Both appointments have been a success with a positive impact on the department efficiency and patient experience. Our day case pathway has particularly benefited from these roles.

OP003143 - Investigation into the feasibility and educational value of a new cross-site on-call for Interventional Radiology trainees

Maged Mestrah, Liverpool University Hospitals Jen-Jou Wong, Liverpool University Hospitals Gaurav Sundar, Liverpool University Hospitals Tze Chan, Liverpool University Hospitals Robert Davis, Liverpool University Hospitals

Aims: To evaluate the effectiveness and educational value of a newly formed cross-site on-call for IR registrars across a newly formed multi-site NHS Trust.

Materials and Methods: A recent merger of two previously separate university teaching hospitals into a single trust was used as an opportunity to increase exposure to complex out of hour procedures for IR trainees. Five senior IR registrars were enrolled on a new cross-site 1:6 rota, under separate consultant supervision for each site. A data capture form was filled for every call received by the registrar, fed into a spreadsheet and analysed. Data included time/date, site, referrer, case discussed and outcome. In addition, a survey was sent out to the trainees and consultants involved in the on-call service.

Results: A total of 308 calls were analysed during 221 on-call shifts over a period of 8 months. An average of 2.5 calls were required before a case was accepted, deferred or rejected. The registrars performed a total of 80 cases over the study period, including 57 drainages (inc. nephrostomies), 15 embolisations and 2 tramatic aortic stentings.

Conclusion: The cross-site rota increased trainee exposure to complex out of hours cases as well as increasing confidence in overall management of patients and clinical decision making while still being of sustainable intensity. Feedback suggests that the new rota increased trainee confidence in their ability to handle on-call situations in their future consultant careers. We feel a similar multi-site on-call model can be implemented in other regions to benefit IR registrars.

OP003154 - IR Training in the UK 2022 - What do trainees think?

Usman Javed Mahay, University Hospitals Coventry and Warwickshire NHS Trust John Reicher, The Newcastle upon Tyne Hospitals NHS Foundation Trust Linda Watkins, NHS Greater Glasgow and Clyde Tolani Lewis, Health Education England North West Katrina Harborne, University Hospitals Birmingham NHS Foundation Trust Indrajeet Mandal, Oxford University Hospitals NHS Foundation Trust Shian Patel, University Hospital Southampton NHS Foundation Trust Wing Yan Liu, University Hospitals Coventry and Warwickshire NHS Trust Mohamad Hamady, Imperial College Healthcare NHS Trust

Aims: To provide a platform to hear the voice of IR trainees, identify gaps in UK IR training and develop strategies to improve training.

Materials and methods: A 59 question online survey was distributed via mailing lists. The survey was open to all UK based ST4-ST6 IR trainees and fellows.

Results: 43 respondents (12 ST4, 14 ST5, 15 ST6 and 2 fellows) participated from 17/19 UK training regions. Wide diversity of ethnicity, 9% were female. 65% of those in training are on the new RCR IR curriculum. 44.2% participate in IR on-call. Respondents were generally satisfied with procedural training opportunities, however 77.5% and 37.5% would prefer more IO and vascular IR respectively while 22.5% would prefer less US guided biopsies/drainages. High rates of opportunities to attend morbidity and mortality and multidisciplinary team meetings were reported, contrasting with 45% answering affirmatively for IR clinic and only 17.5% for IR ward rounds. 15.8% have structured IR teaching on at least a monthly basis with 66% having none. Most have sufficient allocated time for audit but not for research. 73% of respondents stated they were satisfied overall with IR training.

Conclusion: Two thirds of respondents are overall satisfied with UK IR training. Ongoing work to reduce the gender gap remains a priority. While some specifics were highlighted where procedure-based training could be improved, access to non-procedural clinical training such as clinics and ward rounds and access to research were particularly lacking. These areas require urgent attention to improve training quality and for IR to continue as a safe clinical speciality.

SPOP003086 - Use of Phoenix Atherectomy in Critical Limb Ischaemia: a single centre case series

Sachin Modi, Royal Free London NHS Foundation Trust
Conrad von Stempel, Royal Free London NHS Foundation Trust
Matthew Seager, University College London Hospitals NHS Foundation Trust
Julian Hague, University College London Hospitals NHS Foundation Trust
Neil Davies, Royal Free London NHS Foundation Trust
Mark Portou, Royal Free London NHS Foundation Trust
Janice Tsui, Royal Free London NHS Foundation Trust

Aims: The Phoenix Atherectomy System (PAS) is a newly developed rotational atherectomy device used for debulking peripheral vessel plaque. This study reports the initial experience of PAS in a single centre.

Materials and Methods: A retrospective, single centre study of PAS between June 2019 and October 2020. Data was gathered from electronic and PACS records. Primary endpoints included: target-lesion revascularisation (TLR), major amputation-free survival and healing response of ulcers. Complications, vessel characteristics and technical considerations were also recorded. Censorship was 28/10/2020.

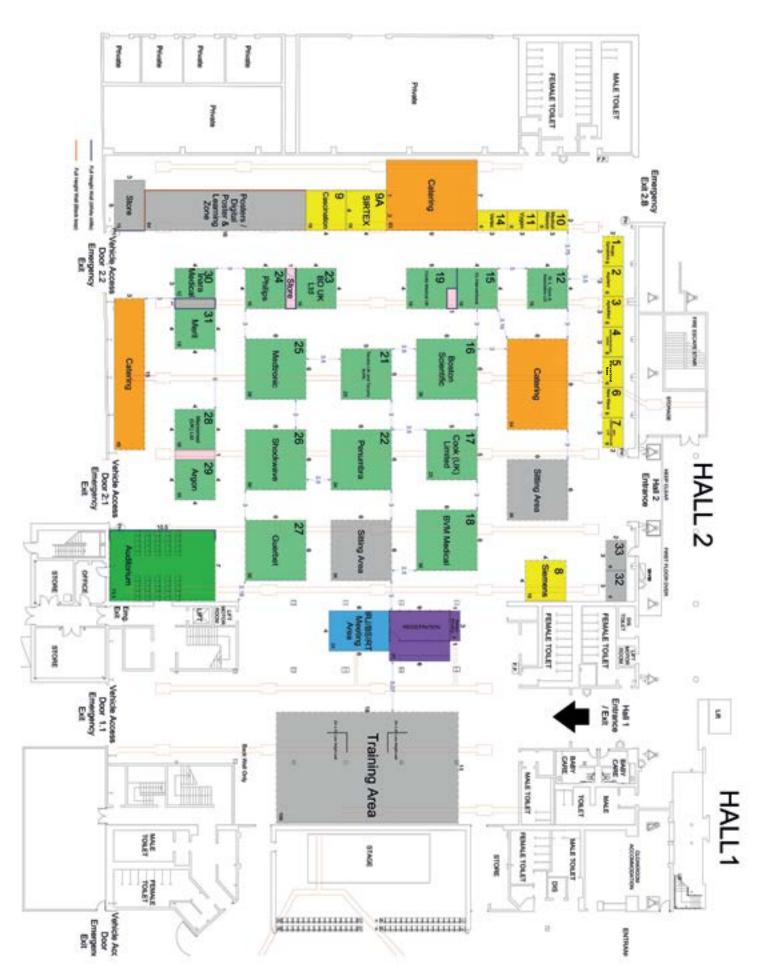
Results: 510 angioplasties were carried out within the study time, 9 (2%) required PAS. All patients had Rutherford ?5 disease with tissue loss and at least 1 had prior crural plain balloon angioplasty (POBA) with recoil or failure to overcome calcification. All patients had visible vessel calcification on unsubtracted angiographic images and calcification was classed as: severe in 2, moderate in 4 and mild in 3. Technical success was seen in 8 out of 9 patients on angiography. Latest follow up was at a median of 186 days. TLR was reached in 5 patients with a median of 77 days following PAS; 3 patients underwent repeat angioplasty (median 142 days); 5 patients had minor amputations (median 99 days); 1 patient had a major amputation at 127 days. 5 patients had documented ulcer healing, 2 had static wounds, and 1 had deterioration of their wound. No distal embolisation, perforation or dissection from PAS was demonstrated.

Conclusion: PAS facilitates effective treatment of heavily calcified below-the-knee vessels in patients who have failed POBA.

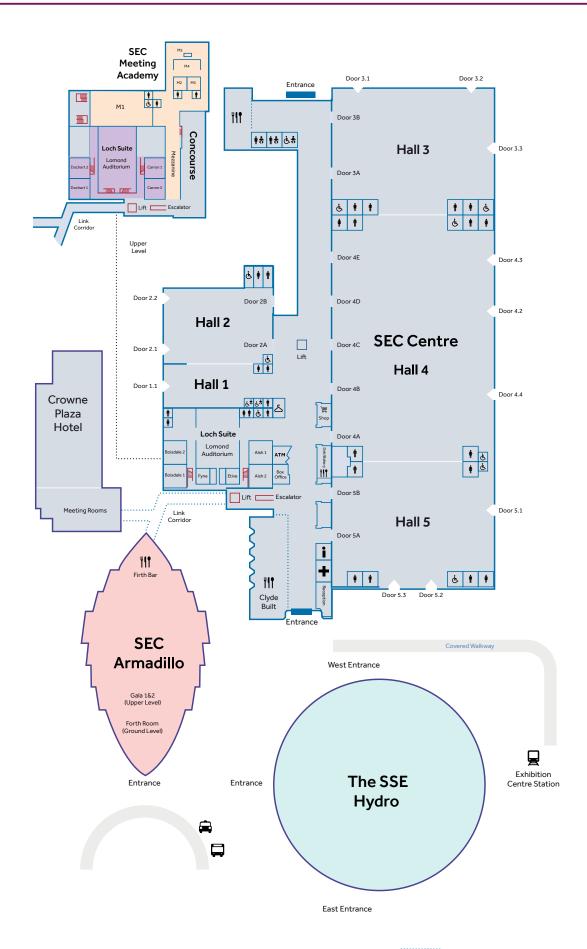
SPONSORS LIST

SPONSORS: STAND NUMBER: BVM Medical 18 Terumo UK & Terumo Aortic 23 It's Interventional 15 Cook Medical Europe Ltd. 17 Cordis Medical UK 19 W.L.Gore & Associates Ltd. 12 APC Cardiovascular Ltd. 7 Guerbet 27 **BD** Becton Dickinson 23 **Philips** 24 AprioMed 3 inomed Neurocare Limited 4 22 Penumbra **Boston Scientific** 16 Macromed (UK) Ltd 28 Argon Medical Devices 29 NeuWave 6 Interventional News 5 1 Aquilant Medtronic 25 Shockwave 26 8 Siements 2 Angiodynamics MedicalAlliance 10 Vertec 14 Inari Medical Europe GmbH 30 Merit Medical UK Ltd 31 Vygon 11 Sirtex 9a 9 Cascinations TT Biba **NVR Tial** TT

FLOOR PLAN



SITE PLAN









Optimize SIRT with SIR-Spheres



FLEXdose Delivery Programme Any dose, any day



Order-Map-Treat
Reduce delays to treatment









Argon Medical is a global manufacturer of specialty medical products and offers a broad line of medical devices for Interventional Radiology, Vascular Surgery, Interventional Cardiology and Oncology.

The spirit of innovation thrives as we focus on improving the lives of caregivers and patients by delivering best-in-class medical device products, programs and services. For over 50 years, medical professionals worldwide have trusted us to deliver consistent clinical performance.





BSIR 2023

ANNUAL MEETING



MEETING ANNOUNCEMENT

8TH - 10TH NOVEMBER 2023 ICC WALES



For further information please contact:

British Society of Interventional Radiology (BSIR)
63 Lincoln's Inn Fields, London WC2A 3JW
Tel: +44 (0)20 7406 5998 | Email: meeting@bsir.org | Web: www.bsir.org





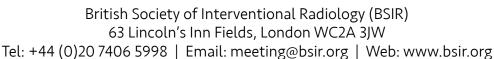
BSIR ADVANCED PRACTICE COURSE 2023

1st & 2nd June 2023
The Christie Education Centre, Manchester

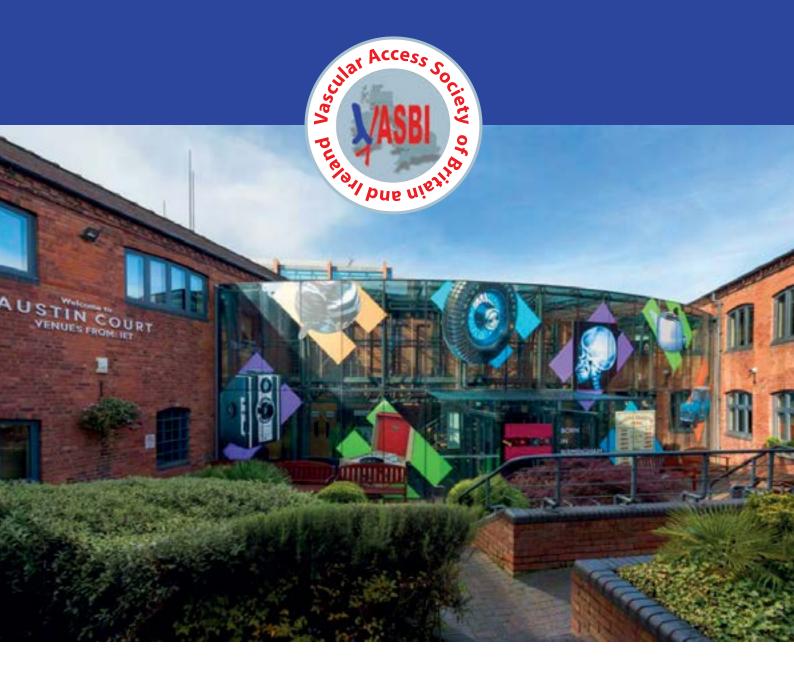




For further information please contact:







VASBI ANNUAL MEETING 2023

28TH & 29TH SEPTEMBER 2023

Austin Court 80 Cambridge Street, Birmingham B1 2NP

VASBI Office, PO Box 2769, Bearsden, Glasgow, G61 4WR Tel: +44 (0)141 942 8104, Email: vasbi.org@gmail.com

vasbi.org.uk

NOTES

BSIR SIGS (SPECIALIST INTEREST GROUPS)

2023 MEETINGS



UK PAEDS IR

MAY 2023, MANCHESTER





For further information please contact:

British Society of Interventional Radiology (BSIR) 63 Lincoln's Inn Fields, London WC2A 3JW Tel: +44 (0)20 7406 5998 | Email: meeting@bsir.org | Web: www.bsir.org



Guerbet | **...**

AWESOME SINCE

