BSIR 2021

ANNUAL MEETING

DELEGATE HANDBOOK

NAME: .....

8TH - 10TH DECEMBER 2021
SEC, GLASGOW

British Society of Interventional Radiology

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Please visit the BSIR 2021 microsite: **meeting.bsir.org**

WELCOME TO BSIR 2021

Welcome to the British Society of Interventional Radiology (BSIR) Annual Scientific Meeting (ASM) 2021.

This much anticipated face-to-face meeting provides an exciting opportunity to meet colleagues in person, share best practice and discover innovative developments in Interventional Radiology. It is wonderful to finally reconnect with colleagues around the country, including interventional radiologists, trainees, medical students, allied healthcare professionals and industry partners.

The 2021 BSIR ASM programme is the first hybrid BSIR meeting. Hybrid meetings offer the best of both worlds, enabling key opinion leaders from across the world to join us virtually, discussing cutting edge topics with UK experts and delegates.

There are many exciting sessions to look forward to, including: All Creatures Great and Small: IR for Animals, Genicular Artery Embolisation, AVF Creation, Bench Modified Stentgrafts, SIRT for HCC, East meets West liver MDT, TIPS, Advanced Biliary, Venous and Pulmonary Embolism IR sessions, Sedation in IR, Complications session and the ever-popular IR Quiz ("Universally Challenged"). Building on previous feedback, we have many interactive sessions to help delegates develop their skills including fundamentals, workshops, masterclasses and the innovative active learning zone. In addition, there are unrivalled parallel BSIRT and SIRNR programmes within the BSIR ASM.

This year's Gold Medal will be awarded to Dr Iain Robertson from Glasgow, the Wattie Fletcher lecture will be delivered by Dr Trevor Cleveland from Sheffield and the Graham Plant Lecture by Prof Tze Min Wah from Leeds on "The Impact of COVID on Interventional Oncology (And Me)".

Finally, a huge thank you to our faculty, delegates and industry partners for supporting the development and delivery of this meeting.

Kind regards,

Dr Pete Littler
Consultant Interventional Radiologist, Newcastle Hospitals
BSIR Scientific Programme Committee (SPC) Chair

On behalf of the SPC
Dr Elika Kashef, Dr Lakshmi Ratnam, Dr Salil Karkhanis, Dr Conrad Von Stempel,
Dr Raghu Lakshminarayan, Dr Amr Moussa & Dr Shian Patel

GENERAL INFORMATION

PLEASE READ THIS GENERAL INFORMATION

COVID:
As we are in Scotland all delegates and attendees are encouraged to wear face coverings, masks at all times (except when eating and drinking). Hand sanitisation facilities are available around the venue. Please feel free to use them. You may be asked to provide evidence of covid vaccination record. Please have this available. This compliant information was in the attendee confirmation. Please be respectful if asked by a member of staff.

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. Industry may scan these badges to retrieve registration information. This is your choice.

SOCIAL EVENTS:

Wednesday 8th December 2021	Drinks reception from around 5pm to 6.45pm - SEC Hall 1, All welcome
Thursday 9th December 2021	SEC "Glasgae Winter wonderland Event". Ticket only. Please collect tickets at registration on arrival. Included in full registration fee or purchased separately.

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

SOCIAL MEDIA HUB:
This Social Media Hub is in Hall 1 of SEC. Here you can view and browse BSIR facebook, Twitter and Instagram via tablets. We fully encourage you to follow, share and comment on all of our social media accounts during the meeting and ongoing. Also volunteers required for the TWITTER OF THE WEEK project so visit the hub to discuss.

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.

MASTER CLASSES:
Please book Master Classes at registration desk. Please note these are limited to 30 persons but are repeated. Lomond Auditorium Sessions & Alsh Sessions - 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 7th December 2021 8am to 6pm Wednesday 8th December 2021 8am to 6pm Thursday 9th December 2021 8am to 2pm Friday 10th December 2021

REGISTRATION:

Room:	Hall 1, SEC
Opening and closing times:	3pm to - 6pm Tuesday 7th December 2021 7.30am to 6pm Wednesday 8th December 2021 7.30am to 6pm Thursday 9th December 2021 8am to 4pm Friday 10th December 2021

EMERGENCY CONTACT: 07813859688

FACULTY LISTS

BSIR FACULTY

Dr Ian McCafferty – Queen Elizabeth Hospital, Birmingham
Dr Peter Bungay – Royal Derby Hospital, Derby
Dr Raghu Lakshminarayan – Hull Royal Infirmary, Hull
Dr Rob Williams – The Freeman Hospital, Newcastle
Dr Trevor Cleveland – Northern General Hospital, Sheffield
Dr Rob Morgan - St George's University Hospitals NHS Foundation Trust, London
Dr Bella Huasen – Preston Royal Hospital, Preston
Dr Lakshmi Ratnam – St George's Hospital University Hospitals NHS Foundation Trust, London
Dr Andrew Wood – University Hospital of Wales, Cardiff
Dr Anton Collins – Royal Victoria Hospital, Belfast
Dr Elizabeth O'Grady – University Hospital Aintree, Liverpool
Dr Ram Kasthuri – Gartnavel General Hospital, Greater Glasgow & Clyde
Professor Tze Min Wah – Leeds Teaching Hospitals Trust, Leeds
Dr Rob Jones – Queen Elizabeth Hospital, Birmingham
Dr Ounali Jaffer – Royal London Hospital, London
Dr David Breen – University Hospitals Southampton NHS Foundation Trust, Southampton
Dr Nicholas Railton – Broomfield Hospital, Mid Essex Hospitals NHS Trust
Dr Alex King – University Hospitals Southampton NHS Foundation Trust, Southampton
Dr Tariq Ali - Norfolk and Norwich University Hospital NHS Trust, Norwich
Dr Raj Bhat – Ninewells Hospital and Medical School, Dundee
Dr Ramita Dey – Bedford Hospital NHS Trust, Bedford
Dr Stephen Butterfield – Manchester University NHS Foundation Trust, Greater Manchester
Dr Kate Waters - University Hospitals Leicester NHS Trust, Leicester
Dr Mark Lewis – Norfolk & Norwich University Hospitals, Norwich
Dr Harry Bardgett – Bradford Teaching Hospitals, Bradford
Dr Ondina Bernstein – Imperial College Healthcare NHS Trust, London
Dr Atif Khan – Leeds Teaching Hospitals NHS Trust, Leeds
Dr Christopher Watts – Royal Bournemouth Hospital, Bournemouth
Dr Tim Bryant – University Hospital Southampton, Southampton
Dr Andrew Macdonald – Oxford University Hospitals NHS Foundation Trust, Oxford
Dr Rosemina Ahmad – University Hospitals of Leicester, Leicester
Dr Elika Kashef – Imperial College NHS Trust, London
Dr Raman Uberoi – John Radcliffe Hospital, Oxford University NHS Foundation Trust
Professor Mark Little – Royal Berkshire Hospital, Reading
Dr Clare Bent – Royal Bournemouth Hospital, Bournemouth
Dr Nabil Kibriya - King's College Hospital, London
Dr Jon Bell – The Christie NHS Foundation Trust, Manchester
Dr Guy Hickson – Gloucestershire Hospitals NHS Trust, Gloucestershire
Dr Sachin Modi – Lister Hospital, East and North Hertfordshire, Stevenage
Dr Alex Horton – Royal Surrey County Hospital, Guildford
Dr Salil Karkhanis – Queen Elizabeth Hospital, Birmingham
Dr Steve Bandula – University College London, London
Dr Peter Kennedy – Belfast Health and Social Care Trust, Northern Ireland
Dr Aidan Shaw – Maidstone and Tunbridge Wells Hospitals, Kent
Dr Jeremy Taylor – Frimley Park Hospital NHS Foundation Trust, Surrey
Professor Mo Hamady – St Mary's Hospital, Imperial College, London
Dr Samantha Chippington – Great Ormond Street Hospital, London
Dr Linda Watkins – University Hospital Hairmyres, Scotland
Dr Colin Nice – Freeman Hospital, Newcastle upon Tyne
Dr Praveen Peddu – Kings College Hospital NHS Foundation Trust, London
Dr Matthew Gibson – Royal Berkshire Hospital, Reading
Dr Kunal Khanna – Frimley Park Hospital NHS Foundation Trust, Surrey
Dr Phil Haslam – Freeman Hospital, Newcastle upon Tyne
Professor Hans-Ulrich Laasch – The Christie NHS Foundation Trust, Manchester
Dr Nick Woodward – Royal Free Hospital, London
Dr Lynn Ling – Hull University Teaching Hospitals, Hull
Dr Ralph Jackson – Freeman Hospital, Newcastle upon Tyne
Dr Jim Gordon-Smith – Royal Infirmary Edinburgh, Edinburgh
Dr Teik Choon See – Addenbrooke's, Cambridge University Hospitals, Cambridge
Dr Sapna Puppala – Leeds Teaching Hospitals, Leeds
Dr Richard Miles – Derriford Hospital, Plymouth
Dr Simon Travis – Nottingham University Hospitals
Dr Jocelyn Brookes - University College London Hospitals NHS Foundation Trust, London
Dr Alex Barnacle – Great Ormond Street, London
Dr Rob Allison – Southampton General Hospital, Southampton
Dr Paul Scott – Hull Royal Infirmary, Hull
Dr Gerry O'Sullivan – University College Hospital Galway, Ireland
Dr Shilpi Pal – Ninewells Hospital & Medical School, Dundee
Dr Malcolm Johnston – Royal Sussex County Hospital, Brighton
Dr Amit Patel – Lister Hospital, East and North Hertfordshire, Stevenage
Dr Andrew Wigham – John Radcliffe Hospital, Oxford University NHS Foundation Trust
Dr Dominic Yu – Royal Free Hospital, Newcastle upon Tyne
Dr Hamish Ireland – Royal Infirmary of Edinburgh, Edinburgh
Dr Naomi Hersey – Sheffield Teaching Hospitals NHS Foundation Trust, Sheffield
Dr Pavan Najran – The Christie NHS Foundation Trust, Manchester
Dr Chris Hammond – Leeds Teaching Hospitals NHS Trust, Leeds
Dr Martin Hennessy – Queen Elizabeth University Hospital, Glasgow
Dr Anthie Papadopoulou - The Royal Free London NHS Foundation Trust, London

FACULTY LISTS

BSIR FACULTY

Dr Damian Mullan – The Christie NHS Foundation Trust, Manchester
Dr Graeme Weir – Royal Infirmary of Edinburgh, Edinburgh
Dr Narayan Karunanithy - Guys & St Thomas' NHS Foundation Trust, London
Dr Des Alcorn – Gartnavel General Hospital, Glasgow
Dr Brian Stedman – University Hospital Southampton NHS Foundation Trust
Dr Uday Patel - St George's University Hospitals NHS Foundation Trust
Dr Seyed Renani – St George's University Hospitals NHS Foundation Trust, Southampton
Dr Susie Goodwin – Royal Hospital for Children, Edinburgh
Dr Homoyoon Mehrzad – University Hospitals, Birmingham
Dr Mark Hall – Queen Elizabeth University Hospital, Glasgow
Dr Conrad Von Stempel – Royal Free Hospital, London
Dr Narayan Thulasidasan - Guys & St Thomas' Hospital, London

BSIR HONOURARY FELLOW:

Professor Ziv Haskal – University of Virginia Health System, Virginia

BSIR INVITED FACULTY

Mr Donald Adam – Heart of England NHS Foundation Trust
Dr Rochan Pant – Sir HN Reliance Foundation and Research Center, Mumbai
Dr Daniel Van Den Heuvel - Saint Antonius Hospital, Nieuwegein
Dr Jinoo Kim - Ajou University School of Medicine, Seoul, South Korea
Mr Nicholas Inston – Queen Elizabeth Hospital, Birmingham
Professor Dheeraj Rajan – Toronto General Hospital, Toronto
Professor Alda Tam - University of Texas M.D. Anderson Cancer Center, Texas
Professor Jean Palussiere – Institute Bergonié, Bordeaux
Dr Steve Kennish – Sheffield Teaching Hospitals NHS Foundation Trust, Sheffield
Mr Mark Harris – University Hospital Southampton NHS Foundation Trust, Southampton
Professor Theresa Caridi – The University of Alabama at Birmingham Hospital, Alabama
Dr Laura Findeiss – Grady Memorial Hospital, Atlanta
Dr Chuck Ray – The University of Illinois Hospital & Health Sciences System, Chicago
Mr Nev Davies – Royal Berkshire, Reading
Professor Siddharth Padia – UCLA Santa Monica Imaging and Interventional Center, California
Dr Yilun Koethe – Oregon Health & Science University, Portland
Dr Ari Isaacson – UNC Hospitals, Hillsborough Campus, North Carolina
Dr Gerard McLauchlan – Fitzpatrick's Referrals, Surrey
Dr Jeffrey Mondschein – Perelman School of Medicine at the University of Pennsylvania, Philadelphia
Dr Marilyn Dunn – University of Montreal, Canada
Dr Paras Dalal – Royal Brompton and Harefield Hospitals, Hillingdon, London
Dr Sean Ocathail - The Beatson West of Scotland Cancer Centre, Glasgow
Professor Jim Reekers – Academic Medical Centre, University of Amsterdam
Dr Mary Newton - University College London Hospitals NHS Foundation Trust, London
Dr Ram Sundaram – Spire Hull and East Riding Hospital, Hull
Professor Derek Manas – The Newcastle upon Tyne Hospitals NHS Foundation Trust, Newcastle
Dr Riad Salem – Northwestern University Feinberg School of Medicine, Chicago
Professor Yasuaki Arai – National Cancer Center, Japan
Dr Jeffrey Chick – University of Washington, Seattle
Mr Ken Anson - St George's University Hospitals NHS Foundation Trust, London
Professor Stephen Black – Guy's and St Thomas's NHS Foundation Trust, London
Professor Helen Reeves – The Newcastle Upon Tyne Hospitals NHS Foundation Trust, Newcastle
Professor Heui-Ling Liang - Kaohsiung Veterans General Hospital, Taiwan
Dr Alex Tang - KPJ Johor Specialist Hospital, Malaysia
Professor Uei Pua – Tan Tock Seng Hospital, Singapore
Miss Panagiota Birmpili - Royal College of Surgeons of England, London
Ms Jill Cockrill – National Casemix Office, Leeds
Professor Simon Padley – Royal Brompton and Harefield Hospitals, London
Dr John Moriarty – UCLA Health, California
Dr Sebastian Mafeld – University Health Network, Toronto,
Mr Derek Edwards – Minnova Medical Foundation
Dr Benjamin Stenberg - Newcastle upon Tyne Hospitals NHS Trust
Dr Marco Manzi – Padua, Veneto, Italy
Miss Lisa Webber – Guerbet
Professor Romaric Loffroy – Guerbet
Symeon Lechareas - Whiston & Royal Liverpool, Liverpool
Sarah O'Shea – Manchester University NHS Foundation

Faculty Bios available on the BSIR 2021 microsite: **meeting.bsir.org**

FACULTY LISTS

BSIRT FACULTY

BSIR FACULTY:

Dr Hunain Shiwani – Leeds General Infirmary, Leeds
Dr Amr Moussa – University of Alberta Hospitals, Canada
Professor Tze Min Wah – Leeds Teaching Hospitals Trust, Leeds
Dr Jim Zhong – Leeds General Infirmary, Leeds
Dr Katrina Harborne – Worcester Royal Hospital, Worcester
Dr Shian Patel – University Hospital Southampton NHS Foundation Trust, Southampton
Dr Usman Mahay - University Hospitals Birmingham NHS Foundation Trust, Birmingham
Dr Tariq Ali - Norfolk and Norwich University Hospital NHS Trust, Norwich
Dr Colin Nice – Freeman Hospital, Newcastle
Dr Lakshmi Ratnam – St George's University Hospitals NHS Foundation Trust
Dr Clare Bent – Royal Bournemouth Hospital, Bournemouth
Dr Anastasia Hadjivassiliou – Royal Free Hospital, London

INVITED FACULTY:

Dr Rahim Samji – The University of Alabama in Hunstville, Alabama
Dr John Kachura – Toronto General Hospital, Toronto
Dr David Valenti - McGill University Health Center, Montreal

SIRNR FACULTY

BSIR MEMBERS:

Mrs Lauren Carr – Sunderland Royal Hospital, Sunderland
Mrs Kayleigh Hizzle (Hackett) – University of Bradford, Bradford
Mrs Claire Elwood - Tunbridge Wells Hospital at Pembury, Kent
Miss Emma Rose- Great Ormond Street

INVITED FACULTY:

Mr David Parker – University Hospitals Birmingham NHS Foundation Trust, Birmingham
Mr Nick Brewin - University Hospitals Birmingham NHS Foundation Trust, Birmingham

Faculty Bios available on the BSIR 2021 microsite: **meeting.bsir.org**

DAY 1 - WEDNESDAY 8TH DECEMBER 2021

TIME	SESSION	TOPIC	CHAIRS*/SPEAKERS
08:45-11-15	**REFRESHMENTS**	**REFRESHMENTS AVAILABLE** (Hall 2)	
08:45-09:00	**Welcome**	**Welcome & Introduction** (Lomond Auditorium)	Dr Ian McCafferty
09:00-10:00	**State of the Art 1**	**Bench modified stentgrafts - a lifeline** (Lomond Auditorium) • The technique • Cases and discussion • Bench modified in Asia	Dr Peter Bungay* & Dr Raghu Lakshminarayan* Dr Rob Williams Mr Donald Adam Dr Rochan Pant
09:30-12:30	**Active Learning Zone**	**Hands on Interventions - Drop-in Session** (Hall 1) Please see page 22 for Active Learning Zone Programme	
10:15-11:15	**PARALLEL SESSIONS**		
10:15-11:15	**Plenary 1**	**New light through old windows - advanced Peripheral techniques** (Lomond Auditorium) • Intravascular lithotripsy • Atherectomy • Deep Venous Arterialisation	Dr Trevor Cleveland* & Professor Rob Morgan* Dr Bella Huasen Dr Narayan Thulasidasan Dr Daniel van den Heuvel
10:15-11:15	**Fundamentals 1**	**Lymphatic Intervention : starting a service** (Alsh) • How to set up a service • Tips and Tricks for success	Dr Lakshmi Ratnam* Dr Lakshmi Ratnam Dr Jinoo Kim
11:15-11:30	**GRAB A COFFEE**		
11:30-12:30	**PARALLEL SESSIONS**		
11:30-12:30	**Scientific Session 1**	**Aortic, Visceral & Major Venous Intervention** (Lomond Auditorium)	Dr Andrew Wood* & Dr Anton Collins*
11:30-12:30	**Scientific Session 2**	**Interventional Oncology** (Alsh)	Dr Elizabeth O'Grady* & Dr Nadeem Shaida*
12:30-13:00	**Graham Plant Lecture**	**Graham Plant Lecture** (Lomond Auditorium) The Impact of COVID-19 on Interventional Oncology (and me)	Dr Ian McCafferty* & Dr Ram Kasthuri* Prof Tze Min Wah
13:00-14:00	**LUNCH**	**LUNCH, EXHIBITION & POSTERS**	
13:30-13:30	**Medtronic**	**Optimising Interventional Oncology Outcomes using Microwave Ablation** (Lomond Auditorium)	Dr. Homoyoon Mehrzad
13:30-14:00	**Boston Scientific**	**DET Next Steps. Beyond the Controversy** (Lomond Auditorium)	Dr Trevor Cleveland*, Dr Ounali Jaffer & Dr Rob Jones
13:30-14:00	**BSIRT Session 1**	**BSIRT Session 1** (Alsh) **Research in IR** **BSIRT AGM**	Dr Hunain Shiwani* & Dr Amr Moussa* Prof Tze Min Wah Dr Jim Zhong
14:00-15:00	**PARALLEL SESSIONS**		
14.00-15.00	**Plenary 2**	**AVF Creation - a new frontier in dialysis access** (Lomond Auditorium) • From concept to reality • UK experience including a virtual live case	Dr Rob Jones* & Mr Nicholas Inston* Prof Dheeraj Rajan Dr Rob Jones & Dr Ounali Jaffer

DAY 1 - WEDNESDAY 8TH DECEMBER 2021

TIME	SESSION	TOPIC	CHAIRS*/SPEAKERS
14:00-15:00	**State of the Art 2**	**Cutting edge ablation** (Alsh)	Dr David Breen* & Dr Nicholas Railton*
		• MSK Interventions- Past Present and Future	Prof Alda Tam
		• Prostate Ablation	Dr Alex King
		• The Role of Image Guided Ablation in Breast Cancer	Prof Jean Palussiere
14:00-15:00	**Masterclass A1**	**Vascular - EVAR** (Dochart 1) Dr Tariq Ali, Dr Raj Bhat, Dr Anton Collins, Dr Ramita Dey, Dr Stephen Butterfield & Dr Kate Waters	
14:00-15:00	**Masterclass B1**	**Urology** (Dochart 2) Dr Steve Kennish, Dr Mark Lewis, Dr Harry Bardgett, Dr Ondina Bernstein, Dr Atif Khan & Dr Christopher Watts	
14.00-16.00	**SIRNR Session**	**SIRNR Symposium** (Boisdale)	
14:00-14:10		• Introduction	Mrs Lauren Carr & Mrs Kayleigh Hizzett
14:10-14:30		• Radiographer Led NG/NJ Tube Insertion	Mrs Claire Elwood
14:30-14:50		• Factors Influencing Undergraduate Diagnostic Radiographer	Mrs Kayleigh Hizzett
		• Career Choices: A Questionnaire Study	
14:50-15:10		• Experiences of an Interventional Radiographer	Mr David Parker
15:10-15:30		• Paediatric IR	Miss Emma Rose
15:30-15:50		• Vascular Access - Interesting Cases	Mr Nick Brewin
15:50-16:00		• Q&A	
15:00-15:30	**PARALLEL SESSIONS**		
15.00-15.30	**Shockwave**	**A Paradigm Shift in Addressing Calcium** (Carron 1 & 2)	Dr Raghu Lakshminarayan*
		• Choosing the Right Calcium Strategy: Why Intravascular Lithotripsy	Dr Symeon Lechareas
		• Simplifying the treatment of complex calcified lesions in CLTI patients	Dr Narayan Thulasidasan
		• Q&A	
15:00-16.00	**State of the Art 3**	**Prostate artery embolisation** (Lomond Auditorium)	Dr Tim Bryant* & Mr Mark Harris*
		• Introduction/short summary on PAE from moderator	
		• PAE 10 years on	Prof Theresa Caridi
		• Case selection, tips and tricks	Dr Andrew Macdonald
		• Take PAE to the next level	Dr Tim Bryant
15.00-16.00	**BSIR Session 1**	**In it for the long haul! Building resilience in IR** (Alsh)	Dr Rosemina Ahmad* & Dr Elika Kashef*
		• Burnout and Improving Resilience	Dr Laura Findiess
		• How to build a positive IR culture	Dr Chuck Ray
		• Recruitment and retention - the threat to IR	Dr Raman Uberoi
15.00-16.00	**Masterclass B2**	**Urology** (Dochart 2) Dr Steve Kennish, Dr Mark Lewis, Dr Hary Bardgett, Dr Ondina Bernstein, Dr Atif Khan & Dr Christopher Watts	
15:30-16:00	**Merit Medical**	**Re-thinking AVF management with the WRAPSODY™ stent graft (Carron 1 & 2)**	Dr Bella Huasen
16:00-16:15	**BREAK**	**REFRESHMENT BREAK & POSTERS**	

DAY 1 - WEDNESDAY 8TH DECEMBER 2021

TIME	SESSION	TOPIC	CHAIRS*/SPEAKERS
16:15-17:15	**PARALLEL SESSIONS**		
16:15-17:15	**State of the Art 4**	**Genicular artery embolisation** (Lomond Auditorium) • A review of the GAE data for knee OA • Anatomy and Technique • GAE for haemarthrosis • GAE cases for knee OA and sham trial • Panel Discussion	Prof Mark Little* & Mr Nev Davies* Prof Siddharth Padia Dr Yilun Koethe Dr Clare Bent Dr Ari Isaacson All
16:15-17:15	**Masterclass A2**	**Vascular - EVAR** (Dochart 1) Dr Tariq Ali, Dr Raj Bhat, Dr Anton Collins, Dr Ramita Dey, Dr Stephen Butterfield & Dr Kate Waters	
16:15-17:15	**Masterclass C1**	**Interventional Oncology** (Dochart 2) Dr Nabil Kibriya, Dr Jon Bell, Dr Guy Hickson, Dr Sachin Modi, Dr Homoyoon Mehrzad & Dr Mark Hall	
17:15-18:15	**Plenary 3**	**All Creatures Great and Small: IR for animals** (Lomond Auditorium) • What can we do • UK Practice • Exotic IR for Animals	Dr Alex Horton* & Dr Gerard McLauchlan* Dr Jeffrey Mondschein Dr Alex Horton Dr Marilyn Dunn
18.15-18.40	**BSIR Session 2**	**Poster Competition Winners: On The Soap Box** (Lomond Auditorium)	Dr Salil Karkhanis* & Dr Elika Kashef*
17:15-18:45	**RECEPTION**	**WELCOME DRINKS RECEPTION** (Hall 1 & 2)	

British Society of Interventional Radiology

SCIENTIFIC SESSIONS 1 & 2

Scientific Session 1: Aortic, Visceral & Major Venous Intervention

Wednesday 8th December 2021, 11:30 – 12:30, Lomond Auditorium. Session Chairs: Dr Andrew Wood & Dr Anton Collins

Full Abstracts can be viewed on pages 29-30

ORDER:	TITLE & SPEAKER
1	**Percutaneous catheter directed therapy for massive and submassive pulmonary embolism: Retrospective review of a single UK centre experience.** Amy Greenwood
2	**Endovascular stenting in superior vena cava syndrome: a systematic review and meta-analysis.** Eri Aung
3	**Single operator experience using sharp recanalisation in patients with central venous occlusion.** Tim Fotheringham
4	**OnyxTM cast fragmentation after embolization of endoleaks.** Christopher Keegan
5	**Clinical and aortic remodelling outcomes following endovascular repair or conservative treatment of blunt thoracic aortic injury.** Jim Zhong
6	**Viabahn VBX endoprosthesis in aortic and peripheral vascular interventions - early to mid-term results.** Bibin Sebastian

Scientific Session 2: Interventional Oncology

Wednesday 8th December 2021, 11:30 – 12:30, Alsh. Session Chairs: Dr Elizabeth O'Grady & Dr Nadeem Shaida

Full Abstracts can be viewed on pages 31-33

ORDER:	TITLE & SPEAKER
1	**Percutaneous thermal ablation of breast cancer liver metastases; safety, recurrence rate and factors affecting progression free survival.** Joost Lameijer
2	**The relevance of renograms in malignant hydronephrosis.** Damian Mullan
3	**Learning the hard way: A retrospective study of 318 percutaneous renal ablation sessions in a tertiary care centre.** Mahmoud Abou-foul
4	**Multi-modal Image Guided Ablation on Management of Renal Cancer in Von-Hippel-Lindau Syndrome Patients from 2004-2021 at a Specialist Centre: A Longitudinal Observational Study.** Vinson Wai-Shun Chan
5	**Percutaneous Cryoablation and Radio-frequency Ablation versus Partial Nephrectomy for Small Renal Rell Rarcinomas: A Ten-years, Single Centre Retrospective Cohort Study.** Filzah Hanis Osman
6	**The Changing Trends of image Guided Biopsy of Small Renal Masses before intervention- An Analysis of European Multinational Prospective EuRECA Registry.** Vinson Wai-Shun Chan

Full abstracts available on BSIR microsite **meeting.bsir.org** and in pages 29-42 of the Delegate Handbook

DAY 2 - THURSDAY 9TH DECEMBER 2021

TIME	SESSION	TOPIC	CHAIRS*/SPEAKERS
08:10-08:20	**BREAKFAST MEETING**	**Coffee & Pastries for BSIR Debate & Workshop 1** (Foyer Lomond & Dochart 1)	
08:20-09:00	**PARALLEL SESSIONS**		
08:20-09:00	**BSIR Debate**	**Does IR have a role in lung cancer treatment?** (Lomond Auditorium) • Lung Ablation • SABR	Dr Steve Bandula* & Dr Peter Kennedy* Dr Paras Dalal Dr Sean Ocathail
08:20-09:00	**BSIR Workshop 1**	**Non-Vascular Intervention: Complex GI stenting** (Dochart 1)	Dr Aidan Shaw* & Dr Jeremy Taylor*
08:45-11:00	**REFRESHMENTS**	**REFRESHMENTS AVAILABLE** (Hall 2)	
09:00-10:00	**PARALLEL SESSIONS**		
09:00-10:00	**BSIR Workshop 2**	**How to write a high impact IR paper** (Alsh)	Prof Jim Reekers & Professor Mo Hamady
09:00-10:00	**Fundamentals 2**	**Paediatric IR** (Dochart 2)	Dr Sam Chippington, Dr Linda Watkins & Dr Susie Goodwin
09:00-10:00	**BSIR Session 3**	**Sedation in Interventional Radiology** (Lomond Auditorium) • Why you need capnography • Become a National Sedation Champion • Nerve Blocks in IR	Dr Lakshmi Ratnam* & Dr Teik Choon See* Dr Mary Newton Dr Mary Newton Dr Ram Sundaram
09:30-12:30	**Active Learning Zone**	**Hands on Interventions - Drop-in Session** (Hall 1) Please see page 22 for Active Learning Zone Programme	
10:00-10:30	**Penumbra**	**The Penumbra Indigo™ System** (Boisdale) **Mechanical Thrombectomy for Thrombus Management**	Dr Bella Huasen & Dr Andrew Wigham
10:30-11:00	**Penumbra Workshop**	**Indigo System Hands-On Workshop** (Boisdale)	
10:30-11:00	**BREAK**	**REFRESHMENT BREAK & POSTERS**	
11:00-12:00	**PARALLEL SESSIONS**		
11:00-12:00	**Scientific Session 3**	**Peripheral Vascular Intervention** (Lomond Auditorium)	Dr Kate Waters* & Dr Colin Nice*
11:00-12:00	**Scientific Session 4**	**GI / Hepatobiliary / Genitourinary** (Alsh)	Dr Praveen Peddu * & Dr Guy Hickson*
12:00-12:40	**PARALLEL SESSIONS**		
12:00-12:40	**BSIR Session 5**	**Clinical Guidelines & Practices in IR** (Alsh) • Clinical Practice Guidelines for Interventional Radiology : Evolving Perspectives • Adverse Events - Keeping Calm and Carrying on Doesn't Work	Prof Rob Morgan* & Dr Ram Kasthuri* Prof Alda Tam Dr Matthew Gibson

DAY 2 - THURSDAY 9TH DECEMBER 2021

TIME	SESSION	TOPIC	CHAIRS*/SPEAKERS
12:00-12:40	**Guerbet**	**Advancing Womens Health through IR** (Lomond Auditorium) • Pelvic Congestion Syndrome (PCS) • Uterine Fibroid Embolization (UFE) • Hysterosalpingography (HSG)	Miss Lisa Webber* Professor Romaric Loffroy Dr Ounali Jaffer Dr Elika Kashef
12:40-13:20	**Womans Health**	**Woman & Diversity Group** Diversity in healthcare: The other side of the coin	Dr Elika Kashef* Dr Kunal Khanna
12:30-13:20	**BSIRT Session 2, AGM & Lunch**	**Count down to oncall** (Alsh) • Count Down to Oncall Quiz • EBIR Exam • EBIR Exam from a trainee perspective	Dr Katrina Harborne* & Dr Amr Moussa*, Dr Shian Patel* & Dr Usman Mahay* Dr Tariq Ali, Dr Colin Nice & Dr Lakshmi Ratnam Dr Colin Nice Dr Amr Moussa
12:40-13:20	**LUNCH**	**LUNCH, EXHIBITION & POSTERS**	
12:45-13:15	**Boston Scientific**	**Beyond Renal Cryo; What to Freeze and What to Leave?** (Carron 1 & 2)	Dr Steve Bandula
13:20-14:00	**WF Lecture**	**Wattie-Fletcher Lecture** (Lomond Auditorium) Le Tour de CAS - Lessons learned in the Maillot Bleu	Dr Ian McCafferty* & Dr Phil Haslam* Dr Trevor Cleveland
14:00-14:20	**Gold Medal**	**BSIR Gold Medal Presentation** Inauguration of Incoming President	Dr Iain Robertson Dr Phil Haslam
14:20-15:10	**BSIR AGM**	**BSIR Annual General Meeting**	Dr Phil Haslam
14:20-15:10	**SIRNR AGM**	**SIRNR Annual General Meeting** (Alsh)	Mrs Lauren Carr*
15:15-16:15	**PARALLEL SESSIONS**		
15:15-16:15	**Plenary 4**	**SIRT for HCC** (Lomond Auditorium) • How the NICE guidelines translate into clinical practice • SIRT for HCC: the Chicago experience • Dosimetry for HCC: quest for the holy grail!	Dr Nabil Kibriya* & Prof Derek Manas* Dr Peter Kennedy Dr Riad Salem Dr Jon Bell
15:15-16:15	**Plenary 5**	**Hot Topics in Interventional Radiology** (Alsh) • Precision Medicine & Image-guided Biopsy: Expectations, Implications, Ethics • Evidence Based Medicine in Interventional Oncology	Dr Praveen Peddu* & Dr Nicholas Railton* Prof Alda Tam Prof Yasuaki Arai
15:15-16:15	**Masterclass D1**	**PTC and Stenting** (Dochart 2) Prof Hans-Ulrich Laasch, Dr Nick Woodward, Dr Aidan Shaw, Dr Lynn Ling, Dr Ralph Jackson & Dr Jim Gordon-Smith	
15:15-16:15	**Masterclass E1**	**Renal Transplant Intervention** (Dochart 1) Dr Teik Choon See, Dr Sapna Puppala, Dr Seyed Renani, Dr Rob Jones & Dr Rosemina Ahmad	

| TIME | SESSION | TOPIC | CHAIRS*/SPEAKERS |

DAY 2 - THURSDAY 9TH DECEMBER 2021

16:20:17:20 **PARALLEL SESSIONS**

16:20-17:20	**Plenary 6**	**Advanced Biliary** (Lomond Auditorium) • Biliary Cholangioscopy • Biliary Radiofrequency Ablation • Panel Discussion	Dr Salil Karkhanis* & Dr Simon Travis* Dr Jeffrey Chick Dr Clare Bent All
16:20-17:20	**Masterclass C2**	**Interventional Oncology** (Dochart 2) Dr Nabil Kibriya, Dr Jon Bell, Dr Guy Hickson, Dr Sachin Modi, Dr Homoyoon Mehrzad & Dr Mark Hall	
16:20-17:20	**Masterclass E2**	**Renal Transplant Intervention** (Dochart 1) Dr Teik Choon See, Dr Sapna Puppala, Dr Seyed Renani, Dr Rob Jones & Dr Rosemina Ahmad	
16:20-17:20	**Masterclass F1**	**IR for Vascular Malformations** (Carron 2) Dr Jocelyn Brookes, Dr Ian McCafferty & Dr Alex Barnacle	
17:25-18:25	**BSIR Session 6**	**Universally Challenged** (Lomond Auditorium) Panel A: Paul Scott, Ram Kasthuri, Gerry O'Sullivan Panel B: Shilpi Pal, Peter Kennedy, Malcolm Johnston Panel C: Phil Haslam, Ian McCafferty, Trevor Cleveland - Air Force One	Dr Anthie Papadopoulou* & Dr Rob Allison*
19:45-23:00	**BSIR SOCIAL EVENT**	**Welcome to Glasgae Winter Wonderland Experience** (Exhibition Hall 1 & 2 SEC)	

WELCOME TO GLASGAE WINTER WONDERLAND EXPERIENCE

Ticket only. Please collect tickets at registration on arrival. Included in full registration fee or purchased separately."

SCIENTIFIC SESSIONS 3 & 4

Scientific Session 3: Peripheral Vascular Intervention

Thursday 9th December 2021, 11:00 – 12:00, Lomond Auditorium. Session Chairs: Dr Kate Waters & Dr Colin Nice

Full Abstracts can be viewed on pages 34-35

ORDER:	TITLE & SPEAKER
1	**Ultrasound guided sciatic nerve block to facilitate endovascular treatment of critical limb ischaemia** Dhiraj Joshi
2	**The Outcomes of Catheter-Directed Thrombolysis in the Treatment of Thrombosed Haemodialysis Access Sites** Thomas Ashbridge
3	**Does an endovascular first approach compromise salvage in patients presenting with mesenteric angina.** Cerys Cavanagh
4	**Validation of Mixed Reality Visualisation for Clinical Skills Development.** Savvas Antoniadis
5	**The Effect of COVID-19 on Admission, Severity and Outcomes in Acute Lower Limb Arterial Thromboembolism** Fahad Mohammad
6	**The impact of plantar arch patency on crural vessel angioplasty outcomes.** Praveena Priyadharsini Prabakaran

Scientific Session 4: GI/ Hepatobiliary/Genitourinary

Thursday 9th December 2021, 11:00 – 12:00, Alsh. Session Chairs: Dr Praveen Peddu & Dr Guy Hickson

Full Abstracts can be viewed on pages 36-38

ORDER:	TITLE & SPEAKER
1	**Outcome evaluation of prophylactic internal iliac balloon occlusion in the management of patients with morbidly adherent placenta.** Asaad Osman
2	**An Innovative Ultrasound Biopsy Device to Enhance the Visualisation of the Biopsy Needle For Ultrasound Guided Procedures.** Arash Bakhtyari
3	**Post-radiation strictures after curative treatment for oesophageal cancer: First experience of a centralised regional service.** Hans-Ulrich Laasch
4	**Comparison of percutaneous biliary stent placement across vs. above the ampulla of Vater in malignant hilar obstruction. A retrospective single centre study.** Ahmad Al-Rekabi
5	**Percutaneous nephrostomy and ureteric stenting in obstructing pelvic malignancy. Is it justified? Interim analysis from the Scottish Cancer Network.** Oliver Llewellyn
6	**Percutaneous Biliary Stone Clearance. Is There Still A Need? A 10-year Single Centre Experience.** Yakup Kilic

Full abstracts available on BSIR microsite **meeting.bsir.org** and in pages 29-42 of the Delegate Handbook

DAY 3 - FRIDAY 10TH DECEMBER 2021

TIME	SESSION	TOPIC	CHAIRS*/SPEAKERS
08:30-09:10	**BSIR Session 7**	**Urology Round Table - PCNL** (Lomond Auditorium) Dr Uday Patel, Dr Amit Patel, Mr Ken Anson & Dr Alex Barnacle	Dr Philip Haslam* & Dr Rosemina Ahmad*
09:15-10:15	**PARALLEL SESSIONS**		
09:15-10:15	**Plenary 7**	**Venous Intervention** (Alsh) • Venous Intervention, is it worth it? • Lysis and Stenting for venous occlusions - where are we today? • Management of Pelvic Venous Congestion	Dr Andrew Wigam* & Dr Matthew Gibson* Dr Gerry O'Sullivan Prof Stephen Black Dr Elika Kashef
09:15-10:15	**MDT**	**Liver Cancer MDT: East meets West** (Lomond Auditorium) Team West: Dr Praveen Peddu, Dr Dominic Yu, Dr Hamish Ireland & Dr Naomi Hersey Team East: Prof Heui-Lung Liang, Prof Yasuaki Arai, Dr Alex Tang & Prof Uei Pua	Prof Derek Manas* & Dr Brian Stedman* & Prof Helen Reeves*
10:15-11:15	**PARALLEL SESSIONS**		
10:15-11:15	**Scientific Session 5**	**Farrago** (Lomond Auditorium)	Dr Simon Travis* & Dr Pavan Najran
10:15-11:15	**Scientific Session 6**	**Embolisation** (Alsh)	Dr Conrad Von Stempel* & Dr Raj Bhat
10:15-11:15	**Masterclass D2**	**PTC and Stenting** (Dochart 2)	Prof Hans-Ulrich Laasch, Dr Jim Gordon Smith, Dr Nick Woodward, Dr Aidan Shaw, Dr Lynn Ling & Dr Ralph Jackson
11:20-12:00	**PARALLEL SESSIONS**		
11:20-12:00	**Registry update**	**Registry update** (Alsh) • NVR • VS Peripheral Arterial Disease QIP • IR Registry	Dr Rob Williams* & Dr Chris Hammond* Dr Rob Williams Miss Panagiota Birmpili Dr Malcolm Johnston
11:20-12:00	**Fundamentals 3**	**BTK intervention - understanding the kit** (Dochart 1)	Dr Martin Hennessy & Dr Anthie Papadopoulou
11:20-12:00	**BSIR Workshop 3**	**NHS Digital HRG Reimbursement: ABC made easy 'How to use the Clinical Training Tool for Costing'** (Dochart 2)	Prof Tze Min Wah* & Ms Jill Cockrill
11:20-12:00	**BSIR Workshop 4**	**Radial Access in Interventional Radiology/IO: Tips and Tricks** (Carron 1)	Dr Pavan Najran* & Dr Damian Mullan*
12:35-13:05	**Live Cases**	**Complex Vascular** (Lomond Auditorium)	Dr Raghu Lakshminarayan & Dr Marco Manzi
13.10-13.50	**BSIRT Session 3**	**IR Fellowships in Canada** (Alsh) • Canada Fellowship Experience • Alberta • Toronto • Mcgill • UBC	Dr Jim Zhong*, Dr Shian Patel* & Dr Amr Moussa* Dr Clare Bent Dr Rahim Samji Dr John Kachura Dr David Valenti Dr Anastasia Hadjivassiliou

DAY 3 - FRIDAY 10TH DECEMBER 2021

TIME	SESSION	TOPIC	CHAIRS*/SPEAKERS
12:35-14:00	**LUNCH**	**LUNCH, EXHIBITION & POSTERS**	
14:00-15:00	**PARALLEL SESSIONS**		
14:00-15:00	**Plenary 8**	**TIPS to Success** (Lomond Auditorium)	Dr Anthie Papadopoulou* & Dr Graeme Weir*
		• The benefit of Early TIPS in Variceal Hemorrhage: Data, Results, and Medical Tribalism	Prof Ziv Haskal
		• Options in difficult cases	Dr Dominic Yu
		• Balloon-occluded retrograde transvenous obliteration (BRTO)	Dr Ralph Jackson
14:00-15:00	**PARALLEL SESSIONS**		
14:00-15:00	**Plenary 9**	**The Person Behind the Intervention - how IR impacts lives** (Alsh) • Fibroid and Oncology patients experience of IR	Dr Ram Kasthuri*
14:00-15:00	**Masterclass F2**	**IR for Vascular Malformations** (Dochart 1)	Dr Jocelyn Brookes, Dr Ian McCafferty & Dr Alex Barnacle
15:00-16:00	**PARALLEL SESSIONS**		
15:00-16:00	**State of the Art 5**	**Pulmonary Embolism IR** (Lomond Auditorium)	Prof Simon Padley* & Dr Narayan Karunanithy*
		• Risk stratification and case selection - the role of PERT	Dr Narayan Karunanithy
		• Contemporary techniques in treatment - systemic to CDT to mechanical thromboaspiraton	Dr John Moriarty
		• Balloon Pulmonary Angioplasty for Chronic Thromboembolic Pulmonary Hypertension	Dr Sebastian Mafeld
15:00-16:00	**Plenary 10**	**Complications management - getting into and out of trouble** (Alsh)	Dr Shilpi Pal* & Dr Ian McCafferty*
		• IO	Dr Des Alcorn & Dr Brian Stedman
		• Vascular	Prof Mo Hamady & Dr Trevor Cleveland
		• Biliary	Prof Hans-Ulrich Laasch & Dr Aidan Shaw
16:00-16:20	**BSIR Session 8**	**BSIR Communication: The 2021 Twitter Winners for @BSIR_News** (Lomond Auditorium)	Dr Alex Barnacle
16:20-16:35	**Meeting Close**	**Closing Remarks & Prizes**	Dr Phil Haslam
		CLOSE OF MEETING	

British Society of Interventional Radiology

SCIENTIFIC SESSIONS 5 & 6

Scientific Session 5: Farrago

Friday 10th December 2021, 10:15 – 11:15, Lomond Auditorium. Session Chairs: Dr Simon Travis & Pavan Najran

Full Abstracts can be viewed on pages 39-40

ORDER:	TITLE & SPEAKER
1	**Safety of EEG-guided procedural sedation.** Hans-Ulrich Laarsch
2	**Radial versus Femoral Prostate Artery Embolisation: Big Difference?** Simon Zakeri
3	**The financial impact of correct clinical coding in the Interventional Radiology department.** Varsha Halai
4	**Steerable microcatheters in PAE: a novelty or a necessity?** Shian Patel
5	**BSIR Snapshot Survey 2021.** Katrina Harborne
6	**Is there really no kit for kids? Quantification of manufacturer recommendations regarding paediatric use for high volume IR devices.** Ruchir Shah

Scientific Session 6: Embolisation

Friday 10th December 2021, 10:15 – 11:15, Alsh. Session Chairs: Dr Conrad Von Stempel & Dr Raj Bhat

Full Abstracts can be viewed on pages 41-42

ORDER:	TITLE & SPEAKER
1	**Uterine artery embolisation for giant fibroids: does it work?** Bahir Almazedi
2	**Accuracy of contrast-enhanced CT in diagnosing vascular injury in patients with blunt splenic trauma who underwent angiography.** Nawaz Safdar
3	**Early experience and outcomes of prostate artery embolisation (PAE) services in a tertiary referral centre.** Vinay Kumar Doddaballapur
4	**Successful radiological management of active muscular bleeding following surgical hip procedures.** Alexander Macaulay
5	**Splenic Embolisition and Factors Affecting Delay (SPEED).** Paul Jenkins
6	**A Retrospective Review of Trauma Patients with Solid Organ Injury Requiring Embolisation.** Bhavin Kawa

Full abstracts available on BSIR microsite **meeting.bsir.org** and in pages 29-42 of the Delegate Handbook

BSIRT/BSIR IR FOUNDATION DAY

Friday 10th December 2021

TIME	SESSION	TOPIC	CHAIRS*/SPEAKERS
09:00-09:15	**Meeting Open**	**Meeting Open** (Boisdale)	Dr Jim Zhong*, Dr Shian Patel* & Dr Amr Moussa*
09:15-09:30		• Welcome • Often Wrong, Never in Doubt: The Perils of Relying on Experts	Dr Jim Zhong Dr Iain Robertson
09:30-10:15	**A Day In The Life Of**	**A Day In The Life Of** (Boisdale) • Trauma IR • Interventional Oncology • Paediatric IR • Neuro IR & Stroke Thrombectomy	Dr Katrina Harborne*, Dr Winnie Liu* & Dr Usman Mahay* Dr Shilpi Pal Dr Teik Choon See Dr Sam Chippington Dr Raghu Lakshminarayan
10:15-11:30	**Industry Kits & Hands on Workshops**		
11:30-12:00	**BREAK**	**REFRESHMENT BREAK & POSTERS**	
12:05-12:35	**Career Session 1**	**Career Session 1** (Boisdale) • Women in IR, Women & Diversity • Less Than Full Time Training	Dr Fiona Lyall* & Dr Paul Jenkins Dr Sammy Rostampour Dr Katrina Harborne
12:35-13:05	**LUNCH**	**LUNCH**	
13:05-13:55	**IR Fellowships**	Please See Main Meeting Programme	
14:00-14:45	**Career Session 2**	**Career Session 2** (Boisdale) • How To Get In To IR • Simulation Teaching In IR • The IR Reg On Call • IR Elective Experience	Dr Shian Patel*, Dr Katrina Harborne* & Dr Amr Moussa Dr Frank Carey Dr Tariq Ali Dr Drew Maclean Dr Indrajeet Mandal
14:45-15.30	**BSIRT Highlights**	**BSIRT Highlights** (Boisdale) • UNITE Collaberative Research Network • Case Study Winners	Dr Jim Zhong & Dr Shian Patel
		CLOSE OF MEETING	

BSIRT

SIRNR PROGRAMME

TIME	SESSION, TOPIC & CHAIRS*/SPEAKERS
14.00-16.00	**SIRNR Symposium**
14:00-14:10	**Introduction** Mrs Lauren Carr, Senior Nursing Sister, Sunderland Royal Hospital Miss Kayleigh Hackett, Lecturer in Diagnostic Radiography, University of Bradford
14:10-14:30	**Radiographer Led NG/NJ Tube Insertion** Mrs Claire Elwood, IR Superintendent Radiographer, Tunbridge Wells Hospital at Pembury
14:30-14:50	**Factors Influencing Undergraduate Diagnostic Radiographer** Miss Kayleigh Hackett, Lecturer in Diagnostic Radiography, University of Bradford **Career Choices: A Questionnaire Study**
14:50 - 15:10	**Experiences of an Interventional Radiographer** Mr David Parker, Interventional Radiographer, University Hospitals Birmingham NHS Foundation Trust
15:10 - 15:30	**Paediatric IR** Miss Emma Rose, Clinical Specialist Radiographer, Great Ormond Street
15:30 - 15:50	**Vascular Access - Interesting Cases** Mr Nick Brewin, University Hospitals Birmingham NHS Foundation Trust
15:50 - 16:00	**Q&A**

Annual General Meeting 2021

Thursday 9th December 2021, 14:20 – 15:10, 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**
6.1	Committee Members
6.2	Resource of the Month
6.3	SIRNR Newsletter
6.4	Members Questions

Members who wish to raise any questions / other matters for discussion should contact Ms Julie Ellison with an outline of the questions / points they wish to raise by Friday 19th November 2021. Contact: council@bsir.org.

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. Table-top stations will offer practical experience in the following procedures:

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, including nurses, radiographers, medical students, and junior doctors.

Attendance will be limited to 30 delegates per station, but the centre will be open on Wednesday 8th and Thursday 9th December, 9.30–12.30. Practitioners from all backgrounds and levels of training, incl. nurses, radiographers and medical students are cordially invited.

The learning centre has been generously supported with grants and phantoms by COOK Medical, Merit Medical, UK Medical and Minnova Medical Foundation.

Day 1: Non-vascular, Wednesday 8th December 9.30–12.30, Hall 1

- Percutaneous drainage and nephrostomy
- Percutaneous nephrostomy and ureteric stenting
- Gastrostomy insertion
- Paediatric IR
- GI stent technology
- Indwelling drainage catheters

Day 2: Vascular, Thursday 9th December 9.30–12.30, Hall 1

- Stroke Thromectomy
- Radial Access
- Contrast Ultrasound
- Closure Devices
- Ablation
- Embo Man
- Stents / Balloons

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.

A1 **Vascular EVAR**
Wednesday 8th December, 14:00 – 15:00, Dochart 1

A2 **Vascular EVAR**
Wednesday 8th December, 16:15 – 17:15, Dochart 2

B1 **Urology**
Wednesday 8th December, 14:00 – 15:00, Dochart 2

B2 **Urology**
Wednesday 8th December, 15:00 – 16:00, Dochart 1

C1 **Interventional Oncology**
Wednesday 8th December, 16:15 – 17:15, Dochart 2

C2 **Interventional Oncology**
Thursday 9th December, 16:20 – 17:20, Dochart 2

D1 **PTC and Stenting**
Thursday 9th December, 15:15 – 16:15, Dochart 2

D2 **PTC and Stenting**
Friday 10th December, 10:15 – 11:15, Dochart 2

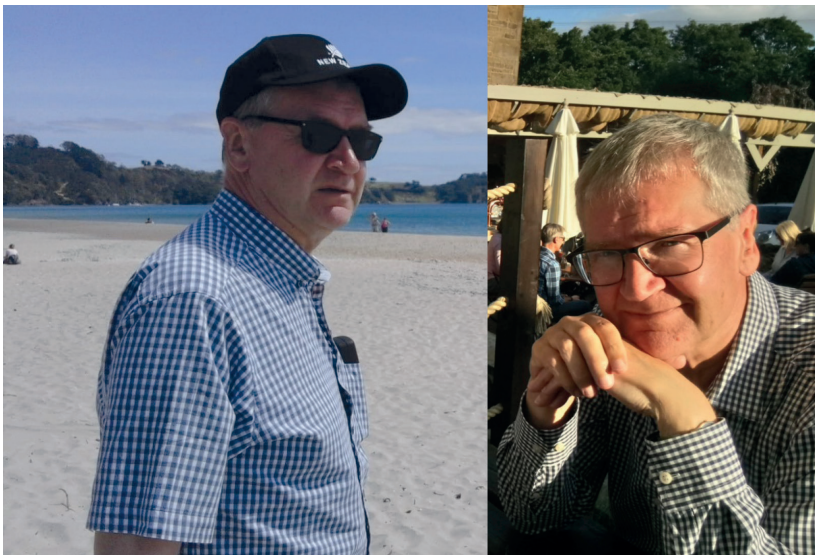
E1 **Renal Transplant Intervention**
Thursday 9th December, 15:15 – 16:15, Dochart 1

E2 **Renal Transplant Intervention**
Thursday 9th December, 16:20 – 17:20, Dochart 1

F1 **IR for Vascular Malformations**
Thursday 9th December, 16:20 – 17:20, Carron 2

F2 **IR for Vascular Malformations**
Friday 10th December, 14:00 – 15:00, Carron

VALE DR IAN NORMAN GILLESPIE



19TH MAY 1953 – 11TH OCTOBER 2021

On Monday 11th October this year Ian passed away after engaging in his passion, playing the beautiful ecclesiastical organ at a Sunday morning service in his home town of Edinburgh.

Ian was an important part of the Scottish and UK Interventional Radiology scene for over three decades having trained in Radiology at the Royal Infirmary Edinburgh and received further training in IR in 1987 at the Mount Sinai Hospital in Toronto Canada where his oldest daughter Sarah was born.

Ian spent the remainder of his career at the RIE developing the newly discovered field of percutaneous endovascular intervention. His expertise in this field enabled patients to access minimally invasive procedures that hitherto would have involved open surgery with its associated mortality, morbidity and hospital stay. The fundamental paradigm shift in the management of arterial disease to a minimally invasive approach required Interventional Radiologists to take a more Clinical role and to ensure appropriate evidence was obtained to support these new therapies. This is where Ian excelled developing an evidence-based approach to his practice and being a primary researcher in important randomised trials such as BASIL (bypass v angioplasty in Severe limb Ischaemia) a trial which is still cited today.

Ian was an influential figure in the UK and European Interventional Radiology scene making a significant commitment to the BSIR (British Society of Interventional Radiology) Ian was instrumental in the development annual meetings and advanced practice course, registries and education as well as serving on the council. Ian had an important role assisting CIRSE (Cardiovascular and Interventional society of Europe) in its formative years.

In 2001 Ian and his family came to Christchurch New Zealand for a six-month sabbatical, Ian and was embraced warmly by the kiwi staff and all who met him forming a lifelong connection with New Zealand.

In addition to all the professional attributes Ian will be remembered as a husband father friend and mentor, his mastery of understated well observed self-effacing and slightly maudlin sense of humour endeared him to all those fortunate to know him and was the origin of his nickname "The Curmudgeon". His passion for music be it singing or playing the organ was only matched by his passion for the Magpies and a Stottie and Pease Pudding sandwich.

This easy convivial and collegial approach to work and life made Ian a popular figure wherever he worked including a stint at Inverness and Wick, he mischievously claimed his greatest achievement was introducing the double contrast enema to Wick hospital, forever the innovator.

Vale Ian, musician pioneer, teacher, mentor, friend and family man.

Our thoughts are with his wife Morag and daughters Sarah and Alison.

Tim Buckenham

LEUKAEMIA UK

Dear all,

We have set up a fund with Leukaemia UK charity to help research treatments into leukaemia. We want to also help patients and families deal with the disease.

Having recently lost my brother to the Leukaemia we know the difficult path it can be for all involved. It was very difficult to see a thriving energetic and kind person succumb to this illness. It can be a testing time with the social isolation due to neutropenia and prolonged hospital stays.

Our only objective is to help other patients and families. Leukaemia is not as well funded as some other cancers and does not always affect the young. The prognosis of leukaemia is not as good as some may think.

Please let's try and help change things together. Any contribution is welcome and helpful. So far we have raised over £2000 towards our target.

Please see the link below and donate online. Feel free to share the link appropriately with others.

https://www.leukaemiauk.org.uk/fundraisers/in-memory-of-mahboob-mehrzad-

Many thanks in advance,

Dr. Hami Mehrzad
Consultant Interventional Radiologist

Leukaemia UK
Blood cancer research and care

POSTER LIST - SCIENTIFIC

SPOP002907 **Are we consenting patients far enough in advance of Vascular Radiology Procedures?**
Peter Jamieson

SPOP002879 **Clinical success and complications associated with the HILZO pyloric/duodenal stent system**
Taymoor Asghar

SPOP002872 **RiiSE-ing to the occasion – Radiological Imaging and Intervention Symposium 2021 (RiiSE21) goes virtual: Analysis, lessons learned and future prospects**
Niall Burke

SPOP002871 **Infrainguinal Angioplasty Outcomes in a Tertiary UK Hospital. Are we getting better?**
James Vassallo

SPOP002863 **IVC Filters – Comparing Practice Before And During The COVID Pandemic**
Essam Hashem

SPOP002861 **Single Centre Retrospective Cohort Study Assessing the Outcomes Post 'SAFARI' Procedure in Critical Limb Ischaemia**
Jared Banat

SPOP002857 **Clinical outcomes of Trans-jugular intrahepatic portosystemic stent shunt (TIPSS): a retrospective single center analysis**
Noelle Chung

SPOP002855 **Outcomes of Endovascular Aneurysm repair using Ovation Stent-Graft in Royal Victoria Hospital, Belfast from 2015-2021.**
Grainne Culleton

SPOP002840 **Novel Technique of Gastrojejunostomy Tube Insertion to Control Retracted Proximal Stoma**
Neill Allen

SPOP002839 **Percutaneous Cryoablation for Large Renal Cancers: a tertiary centre experience on lesions beyond T1a.**
Wing Yan Liu

SPOP002838 **Can endovascular treatment of the coeliac axis offer meaningful symptomatic improvement or does this simply delay surgical intervention?**
Keith Hussey

SPOP002831 **Paediatric non-targeted liver biopsy sample adequacy and complication rates in a tertiary referral centre**
Thomas Eriksen

SPOP002829 **Identifying predictors for early primary stent reintervention in arteriovenous graft outflow for dialysis access patients**
Callum Stove

SPOP002818 **Delayed PTC Following Failed ERCP; A Factor for Increased Patient Mortality?**
Charlotte Jones

SPOP002815 **Single-Centre 6 Year Experience of Ultrasound-Guided Transrectal and Transvaginal Drainage of Pelvic Collections**
Geoffrey Lie

SPOP002807 **Ablative Therapies versus Partial Nephrectomy for Small Renal Masses – A systematic review and meta-analysis of observational studies**
Hoi Lam Helen Ng

SPOP2796 **Single-centre experience of thoracic endovascular stent grafting in a medium sized tertiary referral centre**
Shahid Seedat

SPOP002792 **An audit of 94 patients treated with percutaneous cryoablation for cT1a renal masses.**
Alexander Curran

SPOP002787 **Multicentre Audit of Cholecystostomy and further interventions**
Paul Jenkins

SPOP002781 **Percutaneous Catheter Nephrostomy: Who does them? when do they do them? and what goes wrong?**
Andrew Leitch

SPOP002780 **Radiation dose and fluoroscopy time analysis of Endovascular Aortic Procedures in tertiary centre; retrospective analysis and quality improvement initiative**
Rebecca Ross

SPOP002763 **A multi-disciplinary approach to improving IVC filter retrieval rates in the major trauma population.**
Jozef Kamp

SPOP002738 **Audit of percutaneous non-focal liver biopsies following updated guidelines from the British Society of Gastroenterologists**
Alex Hardman

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

POSTER LIST - SCIENTIFIC

SPOP002718	**Safety and Efficacy of Chemosaturation with Percutaneous Hepatic Perfusion of Melphalan for metastatic uveal melanoma: An 8-year retrospective study of 250 interventions in 81 patients** Ganesh Vigneswaran
SPOP002712	**Day case percutaneous angioplasty: Outcomes in diabetic and non-diabetic cohorts** Canice O'Mahony
SP002915	**Preliminary data for a retrievable stent used in the management of malignant oesophageal obstruction: Hilzo fully covered oesophageal stent** Eamon Lagha
SP002908	**A Retrospective Review of Interventional Radiology procedures on Thrombosed fistulae at a tertiary referral centre over a 4-year period** Raham Karimaghaei
SP002856	**Do you need a CT Angiogram (CTA) as well as a Duplex Ultrasound (DUS) for treatment planning of patients with Lower Limb (LL) Arterial Disease?** Jessamyn Lee
SP002836	**Volume Flow-assisted Angioplasty Of Dysfunctional Arteriovenous Fistula. The Vola Trial** Stavros Spiliopoulos
SP002830	**Selective Internal Radiation Therapy for Hepatic Metastases of Uveal Melanoma: A Systematic Review** Harry Alexander
SP002821	**Covering nephrostomy placement following antegrade ureteric stenting: a necessary routine safety measure?** Hafsa Maryam
SP002814	**Fine Needle Aspiration - COVID-19 era techniques** Ahmad Al-rekabi
SP002788	**Pilot Audit of Liver Biopsy at a Multi-hospital Tertiary Centre: Technique, Sample Adequacy and Complications** Yiwang Xu
SP002785	**Drug coated balloon angioplasty of the femoropopliteal segment to treat intermittent claudication and critical limb ischaemia: a single centre real world experience** Omar Abdel-Hadi
SP002777	**Safety and efficacy of endovascular management of short segment infra-renal abdominal aortic stenosis using bare metal stents - a single UK centre experience** Nabil Ali
SP002772	**The effectiveness of radiofrequency ablation in the clinical outcome of patients with spinal metastases: a systematic review and meta-analysis** Navanith Murali
SP002759	**Predictors of infection risk in a two-year cohort of tunnelled ascitic drains – is routine antibiotic prophylaxis necessary?** Madhurima Chetan
SP002749	**Lung Biopsy: Is a 1-hour discharge possible?** Emile King
SP002737	**An Audit of Percutaneous Cholecystostomy in the Management of Acute Cholecystitis** Jun-Li Tham
SP002723	**Intra-Uterine Device Associated Infection post Uterine Artery Embolisation** Chantal Cave
SP002711	**Improved interdepartmental communication to avoid forgotten ureteric stents** David D Maudgil

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

POSTER LIST - EDUCATIONAL

EP002906 **Getting it right the first time in Interventional Radiology**
John Summut

EP002900 **Use of Latin in Interventional Radiology: hurtful or helpful?**
Deepsha Agrawal

EP002895 **Pictorial review of anatomical variations of the prostatic artery and their origin**
Alexander Macaulay

EP002891 **Radiopaque beads for transarterial chemo-embolisation: a review of the unique multi-modality imaging appearances**
John Reicher

EP002885 **Imaging and treatment of Echinococcal disease**
Taymoor Asghar

EP002883 **Imaging and management of amoebic abscesses**
Taymoor Asghar

EP002881 **A Primer in Post-Partum Haemorrhage**
Taymoor Asghar

EP002878 **Emergency uterine artery embolisation in endometriosis**
Katherine Moore

EP002877 **Active colo-rectal bleeding managed effectively with endovascular coil embolization preventing major surgery**
Nayani Punati

EP002867 **Management of transdiaphragmatic fistulation: a complication of pancreatitis**
Mark Abel

EP002851 **Clinical Nurse Specialist (CNS) led follow up clinic for patient's undergoing uterine artery embolization (UAE) in the year 2019-2020. A single centre review of outcomes**
Marcos Bango Garcia

EP002849 **Iatrogenic haemorrhage and iatrogenic vascular injury; a pictorial and educational review of cases**
Iftikhar Zaman

EP002826 **Synchronous bronchial artery and pulmonary arterio-venous malformation (PAVM) embolization for recurrent haemoptysis in a patient with bronchiectasis**
Hanish Nagar

EP002822 **Venous Occlusion and Bleeding - A Management Conundrum**
Sherafghan Ghauri

EP002816 **Thoracic duct embolisation for persistent chyle leaks: our experience at a tertiary teaching hospital**
Munaib Din

EP002811 **Biodegradable Biliary Stents: A safe avenue to drain removal in benign biliary structuring**
Andrew Leitch

EP002809 **Post-angioplasty delayed common iliac artery rupture**
Michael Parker

EP002795 **Pre- and post-procedural imaging of paediatric aortic injury and intervention**
Jim Zhong

EP002774 **Embolisation of synchronous distant arterial bleeding secondary to iatrogenic subcapsular renal haematoma: a case report**
Daniel Kearns

EP002766 **Percutaneous trans-visceral access for palliative stenting of malignant duodenal obstruction: a local case series**
Hamnah Bhatti

EP002761 **Initial experience of the PercloseTM ProstyleTM vascular closure device**
Shahid Seedat

EP002760 **Pictorial Review of IVC Pathology and Normal Variants**
Mahrukh Rehman Khan

EP002757 **Fatal mesenteric ischaemia due to Superior Mesenteric Vein Aneurysm thrombosis – a previously unreported clinical presentation**
Robert Waterhouse

EP002756 **Factors Influencing Undergraduate Diagnostic Radiographer Career Choices: A Questionnaire Study**
Kayleigh Hackett - University of Bradford

EP002755 **Regional nerve blocks for crural angioplasty in patients with rest pain**
Sohail Akhtar

EP002744 **Transhepatic endovascular approach to splenic vein aneurysm management**
Humza Mahmood

EP002743 **Bleeding in the post surgical abdomen; diagnosis and management of iatrogenic pseudoaneurysms in the lesser spotted inferior mesenteric artery**
Humza Mahmood

EP002741 **Management of recurrent lymphatic leak causing ascites and pleural effusions using Lipiodol embolisation therapy in the context of HIV with Mycobacterium Avium Complex infection**
Humza Mahmood

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

ABSTRACTS

Scientific Session 1: Aortic, Visceral & Major Venous Intervention

Wednesday 8th December 2021, 11:30 – 12:30, Lomond Auditorium.
Session Chairs: Dr Andrew wood & Dr Anton Collins

OP002735 – PERCUTANEOUS CATHETER DIRECTED THERAPY FOR MASSIVE AND SUBMASSIVE PULMONARY EMBOLISM: RETROSPECTIVE REVIEW OF A SINGLE UK CENTRE EXPERIENCE

Amy Greenwood, Interventional Oncology, Southmead Hospital, Bristol
Tarryn Carlsson, Interventional Oncology, Southmead Hospital, Bristol

Aims: Catheter directed therapy (CDT) for acute life threatening pulmonary embolus (PE) has been proven to be safe and effective. We aimed to assess our local service, in terms of volume and type of patients referred, as well as outcomes and complication rates. **Methods:** The Computerised Radiology Information System (CRIS) was interrogated for all procedures performed with relevant procedure codes. The reports for these procedures were reviewed, and pulmonary thrombectomy or thrombolysis procedures were included. Relevant imaging was reviewed alongside patient electronic documentation, including scanned patient notes where available. Patient demographics, severity of PE, procedural details, technical and clinical success, follow up imaging, mortality and complications were recorded. **Results:** Eleven CDT procedures were performed for PE over a three year period in a diverse patient cohort, with a mean age of 53 (39 ,Äì 71) years. The majority of patients were male (9 of 11). Six patients had massive PE. Technical success was achieved in all cases, with clinical success in nine patients. Three patients died within 24 hours of procedure, a further two patients died within 30 days. No complications were recorded. Content Submissions for. **Conclusion:** We believe this to be the largest UK series of CDT for PE. Despite achieving high technical and clinical success, mortality following this procedure was high, which may reflect high treatment threshold, and concomitant morbidity with inherent mortality risk. A nationwide registry for patients being considered for, or undergoing systemic thrombolysis and/or CDTs for PE may identify key factors in determining the best treatment option for patients.

OP002748 – ENDOVASCULAR STENTING IN SUPERIOR VENA CAVA SYNDROME: A SYSTEMATIC REVIEW AND META-ANALYSIS

Eri Aung, School of Medicine, Imperial College London,
Maha Khan, Medway Maritime Hospital
Norman Williams, Surgical & Interventional Trials Unit, University College London
Usman Raja, Department of Interventional Radiology, Guy's and St Thomas' NHS Foundation Trust
Mohamad Hamady, Department of Interventional Radiology, Imperial College London - St Mary's Hospital

Aims: To investigate and analyse the outcomes of endovascular stenting in the management of superior vena cava syndrome (SVCS) as well as consolidate current evidence on the impact of procedural characteristics on these outcomes. **Materials and Methods:** MEDLINE, EMBASE and PUBMED online databases were searched from inception up to 14th November, 2020. Case series and cohort studies investigating outcomes of stenting for SVCS of both benign and malignant pathology with more than ten adult patients were included. Meta-analyses were performed based on the Clopper-Pearson estimation method. **Results:** Fifty-four studies met inclusion criteria, for a total of 2249 patients. Malignant SVCS was implicated in 2015 patients and benign SVCS in 222 patients. The pooled technical success and clinical success rates were 96.8% (95%CI, 96.0-97.5%) and 92.8% (95%CI, 91.7-93.8%) respectively, with no heterogeneity indicated. Pooled patency remained above 90% for the first year (98.0%, 95.6%, 93.7% and 94.0% at 1, 3, 6 and 12 months), with no heterogeneity at all timepoints. The average complication and re-intervention rates were 5.78% (SD=9.3182) and 9.11% (SD=11.190) respectively. Procedural characteristics found to significantly improve outcomes in included studies were the use of covered stents, malignant SVCS pathology, attempting stenting as a first-line procedure, and receiving subsequent therapies after stenting. **Conclusions:** This review confirms the efficacy and safety of endovascular stenting in managing SVCS of all pathologies. Further research should be directed into outcomes in benign SVCS, as well as the impact of procedural characteristics including stent type, and use of intra-procedural anticoagulation or thrombolysis.

SPOP002823 – SINGLE OPERATOR EXPERIENCE USING SHARP RECANLISATION IN PATIENTS WITH CENTRAL VENOUS OCCLUSION

Aims: To evaluate sharp recanalisation to re-establish access in patients with chronic central venous occlusions. **Materials and methods:** Twenty three patients were identified from electronic patient records between 2010 - 2020. Mean age 57.7years (range 21-81), sex M:F 12:11. All patients required access for either haemodialysis (20 patients) or other reasons (3 patients). All patients had an occlusion of the right brachiocephalic vein and/or the superior vena cava which could not be crossed with catheter and wire techniques. Sharp recanalisation was performed with a 22 or 21gauge needle. The needle was advanced towards a target placed through a separate access using fluoroscopic guidance. Following successful recanalisation placement of a catheter and/or a stent was performed. **Results:** The average length for the occluded segment was 62mm (range 10-150mm). Technical success was achieved in 22 patients (96%). The failure was with an 81year old patient with catheter related sepsis from an existing line and hyperkalaemia (K+ = 7.0mmls/l), this patient died during the procedure. 19 patients had catheters inserted. 19 patients had uncovered stents placed. Additional covered stents were used in 4 patients to treat potential haemorrhage into the mediastinum or pericardium. A major complication requiring intervention occurred in one patient with placement of a pericardial drain. Reintervention was required to maintain catheter access in 14 patients, mean time to reintervention was 510 days (range 13-1650). Eleven dialysis patients died in the follow up period (range 1-2076 days). **Conclusions:** Sharp recanalisation is a viable procedure for some patients requiring central venous access.

SPOP002762 – ONYXTM CAST FRAGMENTATION AFTER EMBOLIZATION OF ENDOLEAKS

Dr Christopher Keegan, Interventional Radiology, Liverpool University Hospitals Foundation Trust
Dr Symeon Lechareas, Interventional Radiology, Liverpool University Hospitals Foundation Trust
Prof Francesco Torella, Vascular Surgery, Liverpool University Hospitals Foundation Trust
Dr Tze Yuan Chan, Interventional Radiology, Liverpool University Hospitals Foundation Trust
Prof Robert Fisher, Vascular Surgery, Liverpool University Hospitals Foundation Trust
Prof Richard McWilliams, Interventional Radiology, Liverpool University Hospitals Foundation Trust

Aims: Endoleaks are common following EVAR and the liquid embolic material Onyx has been widely used in their treatment. We report our experience of long term morphological changes of Onyx casts on surveillance imaging. **Materials and Methods:** We identified 10 patients over 10 years who underwent Onyx embolization in our institution. Morphological changes of Onyx casts were assessed on surveillance radiographs and CT scans. Relevant outcome data and sequelae were obtained via electronic patient records. **Results:** 12 procedures were performed on 10 cases, 9 for type 2, 1 for a type 1a endoleak. 5 cases showed evidence of Onyx fragmentation on follow up imaging ranging from a single fracture to gross fragmentation with migration of fragments. Of these 5, 3 had achieved primary success but 2 went on to develop recurrence of endoleak. Onyx volume ranged from 4-46.5ml (median 10.5ml) per patient with larger volumes demonstrating the most marked fragmentation on follow up. Follow up ranged from 9 months to 8 years (median 2.25 years). **Conclusion: T**o our knowledge, this is the first report of Onyx fragmentation after endoleak embolization. If long term morphological stability of the Onyx cast is necessary to maintain aneurysm seal, then Onyx may not offer a permanent solution to some patients with postEVAR endoleaks. Our study cannot ascertain whether the observed changes were the cause or the effect of ongoing aneurysm growth, persistent endoleak and/or other forces acting on the solidified polymer, but it raises important questions on the use of Onyx in this setting.

SPOP002794 – CLINICAL AND AORTIC REMODELLING OUTCOMES FOLLOWING ENDOVASULAR REPAIR OR CONSERVATIVE TREATMENT OF BLUNT THORACIC AORTIC INJURY

Jim Zhong, Diagnostic and Interventional Radiology, Leeds Teaching Hospitals NHS Trust
Carmelo Corallo, Diagnostic and Interventional Radiology, Leeds Teaching Hospitals NHS Trust
Kit Yeng Wong, Diagnostic and Interventional Radiology, Leeds Teaching Hospitals NHS Trust
Sarah Billingsley, Diagnostic and Interventional Radiology, Leeds Teaching Hospitals NHS Trust
Sapna Puppala, Diagnostic and Interventional Radiology, Leeds Teaching Hospitals NHS Trust
Simon Mcpherson, Diagnostic and Interventional Radiology, Leeds Teaching Hospitals NHS Trust

Aim: The aim was to review the clinical outcomes and aortic remodelling following thoracic endovascular aneurysm repair (TEVAR) and conservative management of blunt thoracic aortic injury (BTAI). **Methods:** All patients with BTAI treated with TEVAR or conservative management (observation) between 01/01/2006-31/12/2020 included. Clinical and technical outcomes collected. Aortic diameter (AD) was measured on 3D centre-line computed tomography (CT) imaging at 3 locations along the thoracic aorta. Dilatation was >2mm AD increase from the first post-TEVAR baseline CT. Conservatively managed patients had follow-up imaging within 1-week. **Results:** 29 patients were included. Results are presented as median(range). Median age was 30(18-83) and 4 were female (14%). 26/29 (90%) of BTAIs occurred at Ishimaru zone 3/4. 22 (76%) had TEVAR and 7 (24%) were observed. The technical success rate for the TEVAR group was 100%. Median Injury Severity Score for the TEVAR and conservative groups were 33(10-50) and 26(17-42) respectively. Thirty-day mortality was 6% (n=2). Early morbidity included permanent spinal cord ischaemia (n=1), stroke (n=3), and renal failure (n=2). No subsequent re-interventions or TEVAR-related complications were observed. Median follow-up was 36.5 months (1-124). No change in aortic diameter for 25/27 (93%). For two patients, the distal landing zone increased by 20% and 24%. For the conservative group, 2 had residual thoracic injury on follow-up CT and 5 had complete resolution. **Conclusion:** TEVAR is safe for BTAI with low rate of complications. Minimal aortic dilatation was observed at the proximal landing zone but further study is required to determine potential aortic changes.

SPOP002805 – VIABAHN VBX ENDOPROTHESIS IN AORTIC AND PERIPHERAL VASCULAR INTERVENTIONS – EARLY TO MID-TERM RESULTS

Bibin Sebastian, Radiology, Hull Royal Infirmary
Paul Scott, Radiology, Hull Royal Infirmary
Vivek Shrivastava, Radiology, Hull Royal Infirmary
Saira Sayeed, Radiology, Hull Royal Infirmary
Raghuram Lakshminarayan, Radiology, Hull Royal Infirmary

Aim: VBX (Viabahn VBX, WL Gore and Associates) is a new balloonexpandable, heparin coated endoprosthesis, which is gaining much popularity. This study aims to evaluate the safety and feasibility of VBX stents in the aortic and peripheral vessel indications along with the clinical outcomes and its early to midterm follow-up. **Materials and Methods:** Retrospective analysis of patients who underwent interventions utilising VBX stent-grafts from November 2019 were performed. Descriptive statistics with respect to demographics, indication, vessels treated and device profile were analysed. Technical/clinical outcomes and follow-up were also reviewed. **Results:** Total 42 arteries were treated in 25 patients including aortic visceral branches and peripheral arteries. Excellent immediate outcome was observed. Technical success was 100%. The early to mid-term follow up (mean time period 8 months) demonstrated patent stent grafts with no stent migration or fractures. **Conclusion:** The initial experience with Viabahn VBX stent graft demonstrated excellent outcomes and is a promising endoprosthesis not only as a bridging graft for endovascular aortic repair but also for visceral and peripheral vascular indications. Long term follow-up studies are necessary.

ABSTRACTS

Scientific Session 2: Interventional Oncology

Wednesday 8th December 2021, 11:30 – 12:30, Alsh. Session Chairs: Dr Elizabeth O'Grady & Dr Nadeem Shaida

OP002868 - PERCUTANEOUS THERMAL ABLATION OF BREAST CANCER LIVER METASTASES; SAFETY, RECURRENCE RATE AND FACTORS AFFECTING PROGRESSION FREE SURVIVAL.

Joost Lameijer, Interventional Radiology, Royal Marsden Hospital, K. Alqararha, Interventional Radiology, Royal Marsden Hospital
James McCall, Interventional Radiology, Royal Marsden Hospital, Nasir Khan, Interventional Radiology, Royal Marsden Hospital
Ed Johnston, Interventional Radiology, Royal Marsden Hospital, Nicos Fotiadis, Interventional Radiology, Royal Marsden Hospital

Aims: To determine the role of radiofrequency (RFA) and microwave ablation (MWA) in the management of liver metastases in oligometastatic breast cancer patients and to assess safety, local recurrence and progression-free survival (PFS) in these patients. **Materials and Methods:** A total of 30 women with a mean age of 54 (SD 13 years) underwent ablations of 55 liver metastases. Of 55 lesions, 18 were treated with MWA, 37 with RFA. Mean tumour diameter was 20 mm (SD 10 mm, range 4-40 mm). Follow-up imaging was performed using contrast enhanced CT, contrast enhanced MRI and/or PET-CT. Progression free survival (PFS) and local recurrence free survival were calculated based on relapse of disease on imaging. **Results:** Two patients (2/30, 6.7%) suffered from complications (1 pneumothorax, 1 subcapsular hematoma) which required longer hospital stay. Local recurrence occurred in 5/55 (9.1%) of lesions treated, with a median time to local recurrence of 313 days (95% C.I. 78-461 days). Nearly all patients (26/30, 86.7%) showed evidence of progressive disease somewhere in the body during follow-up. Median PFS in this study was 294 days (95% C.I. 162- 321 days). No differences were found when comparing PFS in RFA versus MWA (P=0.32). There were no differences in PFS when comparing estrogen receptor (ER) positive versus ER negative patients (P=0.24). **Conclusion:** Percutaneous thermal ablation of liver metastases in oligometastatic breast cancer patients is a safe procedure with low complication rate. In this study local recurrence was a rare event (5 out of 55 lesions, 9.1%). There were no differences in PFS between RFA and MWA.

OP002898 – THE RELEVANCE OF RENOGRAMS IN MALIGNANT HYDRONEPHROSIS

Damian Mullan, Interventional Radiology, The Christie Hospital NHS Trust
Kumron Tabaie, Medical Oncology, The Christie Hospital NHS Trust
H-U Laasch, Interventional Radiology, The Christie Hospital NHS Trust

Aims: Renogram examinations are frequently performed to decide upon the necessity of percutaneous renal decompression via nephrostomy insertion. Renal function as derived and defined by a renogram is not accurate in an obstructed kidney, and arguably should not be the primary tool to decide upon the necessity of nephrostomy insertion. This retrospective audit was performed to investigate whether renograms added any useful information to the nephrostomy pathway. **Methods:** A retrospective audit of 240 renograms performed for ? obstruction (Sep 19-20), was performed. Data collected included time from initial diagnosis of hydronephrosis, to renogram, to nephrostomy insertion, tracked with kidney function. Renogram results were blindly reviewed to decide if they alone would influence nephrostomy insertion. **Results:** 36/240 were to assess or diagnose hydronephrosis and kidney function. 38 were to assess existing nephrostomy or stent function. urostomy function. 76 were to assess surgical diversion. The remainder were to assess drainage prior to radical paraaortic radiotherapy. In all 36 cases of assessment of hydronephrosis, there was preexisting imaging evidence of hydronephrosis. 11 of 36 had new AKI. Renogram request to result added a median delay of 12 days (range 1-37) to definitive decompression management in these cases. Surgical diversion and radiotherapy assessment were appropriate in most cases. Assessment of nephrostomy function was in appropriate in 72% of cases. **Conclusion:** Patients with proven hydronephrosis and declining renal function proceeded to nephrostomy irrespective of the renogram result. Renograms will delay definitive management and lead to further AKI. prior imaging review, nephrostogram and ultrasound are underused.

SPOP002717 – LEARNING THE HARD WAY: A RETROSPECTIVE STUDY OF 318 PERCUTANEOUS RENAL ABLATION SESSIONS IN A TERTIARY CARE CENTRE

Mahmoud Abou-foul, Radiology, Newcastle upon Tyne Hospitals NHS Foundation Trust
David Rix, Urology department, Freeman Hospital - Newcastle Hospitals NHS Foundation Trust
Philip Haslam, Interventional Radiology, Freeman Hospital - Newcastle Hospitals NHS Foundation Trust

Aims: To evaluate our clinical experience with percutaneous imageguided ablation of renal cell carcinoma in a large tertiary centre. **Materials and methods:** This was retrospective service evaluation. Patient electronic records and PACS system were used for data collection. Imageguided renal ablation procedures were included from September 2006 to October 2020. Statistical analysis was performed using GraphPad Prism 9.1.0.221 software. **Results:** The total of 282 renal tumours in 259 patients were included. Data was collected from 318 treatment sessions; radiofrequency ablation (n=187), microwave ablation (n=125), cryoablation (n=5), and irreversible electroporation (n=1). The average age (¬±SD) was (66 ¬±11) years, the mean tumour size was (2.5¬±0.7 cm), and mean follow-up was (36.5¬±28) months. The primary and the overall success rate were 83% and 98% respectively. Local recurrence rate was 6% (n=17), diagnosed within a mean period of (29¬±14) months. Major complications occurred in 13 (4%) treatment sessions, and included haemorrhage (n=5), urothelial injury (n=6), haemothorax (n=1), and peri-renal abscess(n=1). The two independent risk factors for residual disease were tumour size ?4cm (P< 0.0001), and the use of hydrodissection technique (P<0.009). **Conclusion:** Image-guided renal ablation is effective and safe treatment for renal cell carcinoma. This study demonstrated that tumour size is an independent risk factor for achieving successful ablation. The use of hydrodissection might indicate technical difficulty and increased risk of residual disease.

SPOP002767 – MULTI-MODAL IMAGE GUIDED ABLATION ON MANAGEMENT OF RENAL CANCER IN VON-HIPPEL-LINDAU SYNDROME PATIENTS FROM 2004-2021 AT A SPECIALIST CENTRE: A LONGITUDINAL OBSERVATIONAL STUDY

Vinson Wai-Shun Chan, Medical Student / Foundation Doctor, School of Medicine, University of Leeds
James Lenton, Division of Diagnostic and Interventional Radiology, Leeds Teaching Hospital NHS Trust
Jonathan Smith, Division of Diagnostic and Interventional Radiology, Leeds Teaching Hospital NHS Trust
Satinder Jagdev, Division of Medical Oncology, Leeds Teaching Hospital NHS Trust
Christy Ralph, Division of Medical Oncology
Naveen Vasudev, Division of Medical Oncology, Leeds Teaching Hospital NHS Trust
ASelina Bhattarai, Division of Pathology, Leeds Teaching Hospital NHS Trust
Andrew Lewington, Division of Nephrology, Leeds Teaching Hospital NHS Trust
Michael Kimuli, Division of Urology, Leeds Teaching Hospital NHS Trust
Jon Cartledge, Division of Urology, Leeds Teaching Hospital NHS Trust
Tze Min Wah, Division of Diagnostic and Interventional Radiology, Leeds Teaching Hospital NHS Trust

Aims: To analyse safety, technical feasibility, long-term renal function, and oncological outcome using multimodal technologies in image-guided ablation (IGA) of renal cancer for Von-HippelLindau (VHL) patients. **Materials and Methods:** Retrospective analysis of a prospective database of VHL patients who underwent IGA at a specialist centre. Patients,Äô demographics, IGA with radiofrequency ablation (RFA), cryoablation (CRYO) or irreversible electroporation (IRE), treatment outcome, Clavien-Dindo (CD) complication, renal function, and oncological outcomes were collected. Statistical analysis was performed to determine factors associated with the above outcomes. The overall, 5 and 10-year cancer-specific (CS), local recurrence-free (LRF) and metastasisfree (MF) Kaplan-Meier Curves were used. **Results:** From 2004-2021, 17 VHL patients (age 21-68.2) with median RCC size 1.8 cm (1.5-2.5) had IGA. Median RCCs per patient was 3 (2-4). 53 RCCs were treated by RFA (n=11), CRYO (n=38) and IRE (n=8) in 56 sessions. The primary technical success rate was 94.3% (n=50), and 2 needing further IGAs, achieving an overall success rate of 98%. One CD-III complication with proximal ureteric injury. Five patients experienced >25% reduction of eGFR immediately post-IGA in 8 treatment sessions. All had preservation of renal function with a median follow-up of 79 (51-134) months. One patient developed late local recurrent disease at 36 months. The 5-years CS, LRF, and MF survival rate is 100%. At 10-years, the CS, LRF and MF survival rates are 100%, 85.7%, and 100%, respectively. **Conclusion:** Multimodal IGA of de novo RCC for VHL patients is safe and has provided long-term preservation of renal function and robust oncological durability.

SPOP002779 – PERCUTANEOUS CRYOABLATION AND RADIO-FREQUENCY ABLATION VERSUS PARTIAL NEPHRECTOMY FOR SMALL RENAL RELL RARCINOMAS: A TENYEARS, SINGLE CENTRE RETROSPECTIVE COHORT STUDY.

Filzah Hanis Osman, School of Medicine, Faculty of Medicine and Health, University of Leeds
Vinson Wai-Shun Chan, School of Medicine, Faculty of Medicine and Health, University of Leeds
Jon Cartledge, Department of Urology, St. James's University Hospital
Walter Gregory, Leeds Institute of Clinical Trials Research, University of Leeds
Michael Kimuli, Department of Urology, St. James's University Hospital
Naveen Vasudev, Department of Medical Oncology, St. James's University Hospital
Christy Ralph, Department of Medical Oncology, St. James's University Hospital
Satinder Jagdev, Department of Medical Oncology, St. James's University Hospital
Selina Bhattarai, Department of Pathology, St. James,Äôs University Hospital
Jonathan Smith, Department of Diagnostic and Interventional Radiology, Institute of Oncology, St. James's University Hospital
James Lenton, Department of Diagnostic and Interventional Radiology, Institute of Oncology, St. James's University Hospital
Tze Min Wah, Department of Diagnostic and Interventional Radiology, Institute of Oncology, St. James's University Hospital

Aims: The use of image-guided percutaneous ablation (IGA) in the management of small renal masses (SRMs) has rapidly increased. Data comparing IGA and partial nephrectomy (PN) in the management of SRMs is limited by short follow-up duration, lack of direct comparison and selection bias. This study aims to compare 10-years oncological outcomes and peri-operative outcomes of IGA and PN. **Materials and Methods:** Patients with T1a and T1b renal cell carcinoma, who had undergone cyroablation (CYRO), radio-frequency ablation (RFA), and laparoscopic PN at our institution from 2003 to 2016, were identified. Oncological outcomes were measured and compared using the uni- and multi-variate cox regression and log-rank analysis. Other outcomes were compared using logistic regression and Kruskal-Wallis test. **Results:** 296 patients (238 T1a, 58 T1b) were included in this retrospective study. Univariate analysis revealed comparable oncological outcomes between CYRO, RFA and PN ($p>0.05$). On multivariate analysis, T1a patients undergoing RFA have superior localrecurrence-free survival (LRFS) (HR 0.002, 95% CI 0.00-0.11, $p=0.003$) and metastasis-free survival (HR 0.002, 95% CI 0.00- 0.52, $p=0.029$) compared to PN. In T1a and T1b patients combined, both CRYO (HR 0.07, 95% CI 0.01-0.73, $p=0.026$) and RFA (HR 0.04, 95% CI 0.03-0.48, $p=0.011$) demonstrated better LRFS. Post-operatively, patients undergoing IGA have a significantly smaller median decline in eGFR compared to PN (T1a: $p<0.001$; T1b: $p=0.047$). Limitations include retrospective design and limited statistical power. **Conclusion:** While IGA has similar oncological durability to PN, it preserves kidney function significantly better than PN, and should therefore be considered as first-line treatment alongside PN.

SPOP002808 – THE CHANGING TRENDS OF IMAGE GUIDED BIOPSY OF SMALL RENAL MASSES BEFORE INTERVENTION – AN ANALYSIS OF EUROPEAN MULTINATIONAL PROSPECTIVE EURECA REGISTRY

Vinson Wai-Shun Chan, School of Medicine, University of Leeds,
Francis Xavier Keeley, Bristol Urological Institute, North Bristol NHS Trust
Brunolf Lagerveld, Department of Urology, OLVG
David J. Breen, Department of Radiology, Southampton University Hospitals
Alexander King, Department of Radiology, Southampton University Hospitals
Julien Garnon, Department of Interventional Radiology, Nouvel H√¥pital Civil
Marco van Strijen, Department of Radiology, St Antonius Hospital
Des Alcorn, Department of Interventional Radiology, Gartnavel General Hospital
Ole Graumann, Department of Radiology, Odense University Hospital
Eric de Kerviler, Radiology Department, Saint-Louis Hospital
Miles Walkden, Department of Imaging, University College London Hospitals NHS Foundation Trust
Tze Min Wah, Department of Diagnostic and Interventional Radiology, Leeds Teaching Hospitals NHS Trust

Aims: This study aims to evaluate the use of pre-cryoablation biopsy for small renal masses (SRMs) and its effect on histological outcomes in comparison to biopsy at the time of treatment. **Methods:** From December 2014 to October 2020, patients with T1N0M0 SRMs undergoing percutaneous cryoablation from 14 European institutions within the European Registry For Renal Cryoablation (EuRECA) were included for the retrospective analysis. Univariate and multivariate logistic models was used to evaluate the trends, histological outcomes and the factors influencing use of precryoablation biopsy. **Results:** 1,050 patients (Median [IQR] age, 69[13], 695 men) were evaluated. The use of pre-cryoablation biopsy has significantly increased from 39% (67/171) in 2015 to 72% (88/122) in 2019 (p<0.001). Rates of undiagnosed histology and benign histology is significantly lower in patients undergoing biopsy at the time of treatment (Undiagnosed OR: 0.05 95% CI 0.02-0.12; Benign OR: 0.29, 95% CI 0.17-0.49). Aged 70-79 (OR 0.53, 95%CI 0.29- 0.96), 80-89 (OR 0.47, 95%CI 0.24-0.92), obesity (OR 0.73, 95% CI 0.55-0.98) and having a solitary kidney (OR 0.40, 95%CI 0.27- 0.61) are three patients,Äô factors associated with less likelihood of pre-cryoablation biopsy (p<0.05). R.E.N.A.L. nephrometry score of 10+ (OR 1.86, 95% CI 1.11-3.10) and a Charlson Comorbidity Index >1 (OR 2.11, 95%CI 1.54-2.88) are factors associated with higher likelihood to have received a precryoablation biopsy (p<0.05). **Conclusion:** The increased use of pre-cryoablation biopsy should be advocated as it is more likely to lead to confirmatory histological diagnosis than biopsy at the time of cryoablation, thus reducing overtreatment of benign SRMs.

ABSTRACTS

Scientific Session 3: Peripheral Vascular Intervention

Thursday 9th December 2021, 11:00 – 12:00, Lomond Auditorium. Session Chairs: Dr Kate Waters & Dr Colin Nice

OP002825 – ULTRASOUND GUIDED SCIATIC NERVE BLOCK TO FACILITATE ENDOVASCULAR TREATMENT OF CRITICAL LIMB ISCHAEMIA

Dhiraj Joshi, Interventional Radiology, University Hospitals Sussex NHS Trust

Aims: Ischaemic rest pain in critical limb ischaemia (CLI) makes it difficult to perform endovascular treatment using sedation alone. A proof of concept study was performed to assess the feasibility of ultrasound-guided popliteal sciatic nerve block as an alternative to general anaesthesia for endovascular treatment of CLI in patients with rest pain. **Materials and methods:** Ultrasound guided popliteal sciatic nerve block was performed by the interventional radiologist prior to commencement of endovascular treatment of 20 patients with ischaemic rest pain. Five patients had aorto-iliac atherosclerotic disease and 15 patients had femoro-popliteal and/or crural disease. Some 10 ml of 1% Lidocaine was administered into the sciatic nerve sheath using a 22G spinal needle. Pain levels before and after the sciatic block was assessed using a visual analogue scale (VAS). Conscious sedation was also administered, if required. Post-procedural assessment of patient and operator satisfaction was recorded. **Results:** Fifteen patients (75%) reported significant improvement in pain for the duration of the procedure. This correlated with increase compliance and operator satisfaction. Four patients (20%) required incremental doses of Midazolam and Fentanyl to complete the procedure. In this cohort, there was decreased patient compliance. One patient (0.5%) did not respond to sciatic block or conscious sedation and the procedure was deferred after obtaining a diagnostic angiogram. **Conclusion:** Ultrasound guided popliteal sciatic nerve block could be a useful adjunct to conscious sedation and an alternative to general anesthesia for endovascular treatment of CLI. A larger study with a control group is required.

OP002754 – THE OUTCOMES OF CATHETER-DIRECTED THROMBOLYSIS IN THE TREATMENT OF THROMBOSED HAEMODIALYSIS ACCESS SITES

Thomas Ashbridge, School of Medicine, University of Leeds
Sophie Nissen, School of Medicine, University of Leeds
Christopher Hammond, Interventional Radiology, Leeds Teaching Hospitals NHS Trust

Aims: Effective haemodialysis necessitates reliable vascular access. However, vascular access circuits are susceptible to thrombosis, usually secondary to circuit stenosis. Catheter-directed thrombolysis (CDT) aims to re-establish circuit patency, usually in combination with angioplasty or stenting of stenoses. This study evaluated outcomes of CDT for vascular access thrombosis at Leeds Teaching Hospitals NHS Trust. **Materials and Methods:** CDT procedures for access site thrombosis undertaken between January 2015 and December 2018 were identified. Electronic patient records were interrogated and data on patient demographics, procedural outcome, complication, technical and clinical success and reintervention were abstracted. Summary statistical- and Kaplan Meier survival analysis (for primary and secondary patency) were performed. **Results:** A total of 117 CDT procedures were performed on 64 AVFs, 51 AVGs, and 2 HeRO grafts. Average patient age was 61.8 years (range was 27-89 years). Male: female ratio was 72:45. Technical success was achieved in 83/117 and clinical success in 72/117. Complications were observed in 18/117, most frequently Bleeding (n=11) and haematoma (n=5). For successfully salvaged access circuits, the 6, 12, and 24-month primary patency rates were 23%, 9.4% and 4.7% respectively. The 6, 12, and 24-month secondary patency rates were 62%, 33.3% and 15.8% respectively. **Conclusion:** While CDT is a safe procedure, access site thrombosis and salvage is associated with poor technical and clinical success rates, as well as medium- and long-term patency outcomes.

SPOP002837 – DOES AN ENDOVASCULAR FIRST APPROACH COMPROMISE SALVAGE IN PATIENTS PRESENTING WITH MESENTRIC ANGINA

Keith Hussey, Vascular Surgery, Queen Elizabeth University Hospital, Glasgow
Cerys Cavanagh, Medical School, University of Glasgow
Dasha Romanyuk, Medical School, University of Glasgow
Silje Welsh, Vascular Surgery, Queen Elizabeth University Hospital, Glasgow
Maaz Syed, Vascular Surgery, Queen Elizabeth University Hospital, Glasgow
Martin Hennessy, Department of Interventional Radiology, Queen Elizabeth University Hospital, Glasgow

Aim: The European guidelines on the management of chronic mesenteric angina advocate an endovascular first approach to revascularization. We have explored whether endovascular treatment in patients with mesenteric vascular disease has an effect on salvage options of the primary treatment fails. **Materials/Methods:** This was a retrospective review of endovascular procedures performed for chronic mesenteric ischaemia (2010 to 2021). Index cases were identified from a prospectively maintained radiology database and CHI numbers used to complete a dataset using case-linkage. Where there had been treatment failure without reintervention, cross-sectional imaging was reviewed to define whether there was a possible target for salvage, and the reasons for turndown identified **Results:** There were 84 procedures identified during the study period. In the patients with recurrent symptoms (which were attributable to mesenteric ischaemia) the majority had further treatment performed (which was most often surgery). In patients with recurrent symptoms who did not have further treatment performed, five had severe medical co-morbidity and so were turned down because it was felt that they would not survive laparotomy. One presented late with radiological evidence that showed extensive GI tract infarction. Only one patient appeared to have no target for revascularisation after stent occlusion. **Conclusion:** It is clear that in many patients endovascular treatment can offer a durable outcome and for most, if the treatment fails this does not prejudice further attempts at salvage. Future work comparing this group and patients who were treated primarily with surgery would be interesting.

SPOP002886 – VALIDATION OF MIXED REALITY VISUALISATION FOR CLINICAL SKILLS DEVELOPMENT

Savvas Antoniadis, Surgery and Cancer, Imperial College London
Mr Joseph Davids, Surgery and Cancer, Imperial College London
Dr Stamatia Giannarou, Surgery and Cancer, Imperial College London

Aims: The Ultrasound-guided Common Femoral Artery (CFA) puncture is one of the most commonly performed procedures, as it is the first and foremost step for many diagnostic and therapeutic interventions. Accurate surgical navigation is the key for better clinical outcomes. Mixed Reality (MR) visualization through Three-Dimensional Head-Mounted Display Devices (3D HMD) is a promising technology which may be utilised to provide intraoperative visualization and navigation to the user in order to perform this clinical task more effectively. **Material and Methods:** Microsoft HoloLens 2 was the MR device of choice, which was used for the analysis of the procedure in a blue phantom ultrasound model. Unity Development platform (C# script) was used for the real-time streaming of the ultrasound images into HoloLens,Äô glasses and computer vision techniques were used for the tracking and navigation. **Results:** A new framework was developed, providing intraoperative surgical navigation regarding the correct position and orientation of the 18 G needle during the CFA puncture. The desired trajectory is visualised with simultaneous tracking of the real needle. The user is advised to align the needle with the visualised desired trajectory. Additionally, the user is able to see the ultrasound images superimposed in the HoloLens,Äô glasses. **Conclusions:** This novel, cost-effective clinical framework offers to interventional radiologists to perform the CFA puncture with better accuracy by using the MR technology without the need of robust equipment. This framework may be used for notice interventionists in the early stage of their training.

SPOP002765 – THE EFFECT OF COVID-19 ON ADMISSION, SEVERITY AND OUTCOMES IN ACUTE LOWER LIMB ARTERIAL THROMBOEMOLISM

Fahad Mohammad, Radiology Manchester, Royal Infirmary
Magdalena Nowakowska, Centre for Primary Care Research, University of Manchester
Ganapathy Anantha-Krishnan, Radiology, Manchester Royal Infirmary

Background: Coronavirus as a species has long been thought to play a key role in pathological thrombogenesis with studies highlighting hypercoagulability in concurrent MERS-CoV and SARS-Cov1 infection. Whilst there is a reflexive instinct to consider burden of disease from a respiratory perspective, numerous case reports demonstrate a link between COVID-19 infection and subsequent thrombotic complications. This study investigates the link between the COVID-19 pandemic and subsequent disease burden in lower limb arterial thromboembolism at a tertiary vascular centre. **Aims:** 1) Has COVID-19 led to a significant increase in the incidence of patients presenting with lower limb thromboembolism in the acute setting? 2) Do patients with COVID-19 and lower limb thromboembolism in the acute setting have a greater severity of disease? 3) Do patients with COVID-19 and lower limb thromboembolism in the acute setting have significantly worse outcomes? **Methods:** Anonymised patient-level data was collected through formal request using ICD-10 codes related to lower limb ischaemia in the emergency setting. A time-series analysis was conducted (2015 until present) and regression used to compare predicted against observed trends in admission rates. For disease severity and outcomes, patients between 2019 and present day will be compared based on their COVID status while controlling for confounders. Approval was registered through the local quality improvement department. **Results & Conclusion:** Preliminary results suggest that there has been a significant drop in the number of admissions relating to lower limb thromboembolism with no compensatory rebound in trend. Severity and outcome based data is yet to be described.

SPOP002799 – THE IMPACT OF PLANTAR ARCH PATENCY ON CRURAL VESSEL ANGIOPLAASTY OUTCOMES

Praveena Priyadharsini Prabakaran, Department of Interventional Radiology, Hull University Teaching Hospitals NHS Trust
Robert Waterhouse, Department of Interventional Radiology, Hull University Teaching Hospitals NHS Trust
Rosemary Ho, Department of Interventional Radiology, Hull University Teaching Hospitals NHS Trust
Raghuram Lakshminarayan, Department of Interventional Radiology, Hull University Teaching Hospitals NHS Trust

Aims: To evaluate the role of plantar arch patency on the success of crural vessels angioplasty. We also aimed to determine the association between the number of crural vessels angioplastied and the limb salvage rate. **Materials and Methods:** Retrospective review of crural vessel angioplasties between June 2018 and June 2019. Each crural vessel was allocated a Bollinger score and the plantar arch was classified as complete, incomplete or absent. Patients were followed for 1 year. Early (?30 days) and late (>30 days) outcomes were determined and categorised into successes or failures based on re-intervention, amputation or mortality. Limb salvage rates were also calculated. **Results:** Thirty-six patients and forty limbs were identified. Two limbs had an absent arch, 50% (n=1) were successful at 1 year, and 50% (n=1) were early failures. Thirty limbs had an incomplete arch, 53.3% (n=16) were successful at 1 year, 13.3% were early failures (n=4) and 33.3% (n=10) were late failures. Seven limbs had a complete arch, 57.1% (n=4) were successful at 1 year, 14.3% (n=1) were early failures and 28.6% (n=2) were late failures. The limb salvage rates for absent, incomplete and complete arches were 50%, 70% and 85.7% respectively. The limb salvage rates where 1, 2 and 3 vessels were treated were 87% (n=23), 66.7% (n=15) and 100% (n=2) respectively. **Conclusion:** The study indicates that having a patent arch increases the success of crural angioplasty. Though the signal to draw this conclusion is evident, the sample size in the subgroups was small and a larger cohort might provide statistical significance.

Scientific Session 4: GI/ Hepatobiliary/Genitourinary

Thursday 9th December 2021, 11:00 – 12:00, Alsh. Session Chairs: Dr Praveen Peddu & Dr Guy Hickson

OP002901 – OUTCOME EVALUATION OF PROPHYLATIC INTERNAL ILIAC BALLOON OCCLUSION IN THE MANAGEMENT OF PATIENTS WITH MORBIDLY ADHERENT PLACENTA

Asaad Osman, Interventional Radiology, St George's University Hospitals NHS Foundation Trust
Adelola Oseni, Interventional Radiology, St George's University Hospitals NHS Foundation Trust
Shyamal Patel, Interventional Radiology, St George's University Hospitals NHS Foundation Trust
Leto Mailli, Interventional Radiology, St George's University Hospitals NHS Foundation Trust
Raj Das, Interventional Radiology, St George's University Hospitals NHS Foundation Trust
Ben Hawthorn, Interventional Radiology, St George's University Hospitals NHS Foundation Trust
Rob Morgan, Interventional Radiology, St George's University Hospitals NHS Foundation Trust
Lakshmi Ratnam, Interventional Radiology, St George's University Hospitals NHS Foundation Trust

Aims: To evaluate the outcomes of prophylactic internal iliac balloon occlusion in patients with morbidly adherent placenta (MAP). **Materials and Methods:** Retrospective review was carried out of all prophylactic balloon occlusion of both internal iliac arteries for MAP performed over a 5-year period (2016-2021). Information for analysis was gathered from the local RIS/PACS and clinical documentation. Collected data included patient demographics, indication for procedure, sheath insertion and removal time, total duration of balloon inflation, rate and nature of complications that occurred. **Results:** 61 patients underwent temporary internal iliac balloon occlusion within the 5-year period. All procedures utilised bilateral common femoral artery punctures, 6Fr sheath and 5Fr Le Maitre occlusion balloons. Catheters were successfully positioned and balloons inflated in obstetric theatre following caesarean delivery in 100% of the cases. Uterus was conserved in every case. No maternal mortality or foetal morbidity occurred. 16.3% (10) had some form of complication that required further intervention. Of these, 3 (4.9%) had post-operative PPH, which was treated with PVA embolisation; and 7 (11.5%) had arterial thrombus within the iliac vessels or distally in the lower limbs which required aspiration, all of which were successful with no associated morbidity. All procedures were technically successful with no long-term sequelae identified. **Conclusion:** Prophylactic internal iliac arterial balloon occlusion plays an important part in reducing morbidity and mortality in patients with MAP. Clear pathways and MDT working is critical in managing these patients to ensure any complications are dealt with promptly to avoid long term complications.

OP002709 – AN INNOVATIVE ULTRASOUND BIOPSY DEVICE TO ENHANCE THE VISUALISATION OF THE BIOPSY NEEDLE FOR ULTRASOUND GUIDED PROCEDURES

Dr Arash NE Bakhtyari, Diagnostic Radiology, Nottingham University Hospitals
Prof Amin Al-Habaibeh, Product Design, Nottingham Trent University

Aim: One of the problems during ultrasound guided procedures is the lack of clarity in some cases regarding the location of the biopsy needle and its end. This in most cases force the radiologist to move with a gentle shake the biopsy needle to enhance visualisation (pump manoeuvre). To resolve this issue, the authors and a team from Nottingham Trent University have developed over several stages a new device which enables the radiologist to automatically provide the pump manoeuvre in a consistent way via consistent vibration. **Methodology:** To test the product, a test rig which includes meat test samples were used to evaluate the technology using Samsung ultrasound scanner model HM70A provided by MIS Healthcare. **Results:** The ultrasound images and analysis of results, indicate that the new biopsy device is capable of enhancing the visualisation of the needle during biopsy procedures. **Conclusion:** A new mechanically vibrating biopsy device has been develop and tested in lab environment using ultrasound scanner. The results show that the new technology could help radiologists to conduct their procedures with more consistency; which should enhance safety of such procedures. Acknowledgment: The authors would like to thank Impacting Business by Design (IBbD), part-financed by Research England for the financial support for finalising the design of the biopsy device. And special thanks to the team who has supported the design process, specially Professor Peter Ford & Mr. James Meadwell from Nottingham Trent University and Bluefrog Design Ltd.

OP002786 – POST-RADIATION STRICTURES AFTER CURATIVE TREATMENT FOR OESOPHAGEAL CANCER: FIRST EXPERIENCE OF A CENTRALISED REGIONAL SERVICE

Yixi Bi, Dept. of Radiology, The Christie
Kellie Ogiliev, Dept. of Radiology, The Christie
Owen Dickinson, Dept. of Radiology, The Christie
Philip Borg, Dept. of Radiology, The Christie
Ganesh Radhakrishna, Dept. of Clinical Oncology, The Christie
Hans-Ulrich Laasch, Dept. of Radiology, The Christie

Purpose: To assess the safety and efficacy of a new regional protocol for the treatment of iatrogenic strictures resulting from radical chemoradiotherapy for oesophageal cancer. To validate the combined procedure undertaken by endoscoping radiologists. **Materials and Methods:** The IR department of a supra-regional cancer centre was chosen to deliver the new centralised management of this difficult patient group. Patients with limiting post-treatment strictures received combined fluoroscopic/endoscopic dilatation under EEG-guided sedation by the IR nurses. Strictures were classified into simple, complex and filiform and first balloon dilatation undertaken to no more than 15mm, 12mm or 9mm respectively. Further dilatations were performed with 3mm increments every 10-14 days to 18-20mm. If strictures recurred <3months triamcinolone injections were added and temporary stenting offered to the patients. IRB approval for this prospective service evaluation was granted. **Results:** 14 Patients (9 female) have been referred to date. Median dysphagia was grade 3 (liquids only), range 2-4. Median number of dilatation procedures was 8 (4-23). One patient experienced prolonged pain but no perforations were seen. Four temporary stents (3 metal, 1 biodegradable) were placed in 2 patients, 1 stent migrated. Four patients (29%) developed local recurrence, 2 developed metastatic disease. One patient died from unrelated causes. Seven disease-free patients improved to dysphagia 1 (1-2). Three long-term gastrostomy tubes could be removed. Three patients are now needing treatment only 3-monthly, none are intervention free. **Conclusion:** Initial experience is encouraging, having allowed all patients, even with complete aphagia, to return to the family dinner table without serious complications. A high local recurrence rate justifies the additional endoscopic surveillance.

OP002812 – COMPARISON OF PERCUTANEOUS BILIARY STENT PLACEMENT ACROSS VS. ABOVE THE AMPULLA OF VATER IN MALIGNANT HILAR OBSTRUCTION. A RETROSPECTIVE SINGLE CENTRE STUDY

Ahmad Al-rekabi, Interventional Radiology, Imperial College Healthcare NHS Trust
Yiwang Xu, Interventional Radiology, Imperial College NHS Trust
Al Alsafi, Interventional Radiology, Imperial College NHS Trust

Aims: Optimum placement of biliary stents in malignant hilar biliary obstruction (MHBO) remains the subject of debate. We set out to compare outcomes following percutaneous transpapillary (across the ampulla) vs. suprapapillary (above the ampulla) placement of metal stents in MHBO. **Materials and Methods:** 200 patients who underwent percutaneous insertion of a metallic biliary stent prior to 2018 were identified from the radiology information system (RIS). Procedure notes were reviewed and those who had stents inserted for MHBO were identified. Patient demographics, biliary re-intervention dates, complications and mortality were recorded from RIS and patient electronic records. Data is presented as mean/median and IQR. **Results:** Out of 200 patients, 55 had primary biliary stents inserted for MHBO with a median age of 67 years [58 - 71]. The median time from stent placement to death was 15.4 weeks [7.7 ,Äì 43.8], n=17 and 22 weeks [6.6 ,Äì 59.7], n=29 for transpapillary and suprapapillary stents respectively (p=0.5). 16.7% of patients with transpapillary stents required re-intervention compared with 43% of those with suprapapillary ones (p=0.07). The median time from stent placement to first re-intervention was 11.5 weeks [9 - 53], n=3 and 34.8 weeks [9.7 ,Äì 46.2], n=16 for transpapillary and suprapapillary stents respectively (p=0.66). **Conclusion:** Patients with suprapapillary stents lived longer but had a higher rate of re-intervention likely as a result, compared to those with transpapillary stents. Suprapapillary placement of biliary stents is associated with longer patency rates, later first re-interventions and improved outcomes.

SPOP002820 – PERCUTANEOUS NEPHROSTOMY AND URETERIC STENTING IN OBSTRUCTING PELVIC MALIGNANCY. IS IT JUSTIFIED? INTERIM ANALYSIS FROM THE SCOTTISH CANCER NETWORK

Oliver Llewellyn, Radiology, Western General Hospital, NHS Lothian
James Blackmur, Urology, NHS Tayside

Aims: While intervention via percutaneous nephrostomy (PCN) or ureteric stenting (US) for obstructing pelvic malignancy (OPM) may improve renal function and facilitate oncological treatment, intervention is not without risk and may have quality of life implications. The benefit of these interventions, and the impact on quality of life are still not established. **Materials and Methods:** This is an ongoing multicentre retrospective analysis of patients who underwent US or PCN for OPM, with interim analysis from NHS Lothian and NHS Forth Valley between 2012-2020. Suitable patients were identified using the hospital electronic records and PACS. Entries were filtered for indication of OPM and others were excluded. **Results:** 276 patients underwent US or PCN. Bladder, prostate, colorectal, and cervical cancers were most prevalent: 35.5%, 15.2%, 11.2%, 9% respectively. 100 patients (36%) were managed ultimately with nephrostomy, 176 (64%) with stent. 221 patients (80%) died during follow-up (median: 8.5months, IQR, 2-26). 113 patients (41%) died within 6 months of first intervention. 88% of patients receiving nephrostomy died with median survival in those cases of 3 months (IQR 1-8). 76% of patients stented died, with median survival in those cases of 5 months (IQR 2-15months). Of the total cohort, 155 patients (56%) did not receive any further oncological treatment. **Conclusion:** A significant proportion of patients with OPM who underwent US and PCN procedures at/towards the end of life received no further oncological treatment, and post-procedural survival was short in both groups. Further work aims to identify which factors are associated with poor survival.

SPOP002728 – PERCUTANEOUS BILIARY STONE CLEARANCE. IS THERE STILL A NEED? A 10-YEAR SINGLE CENTRE EXPERIENCE

Yakup Kilic, Imaging Department, Hammersmith Hospital, Imperial College London
Alison Graham, Imaging Department, Hammersmith Hospital, Imperial College London
N Paul Tait, Imaging Department, Hammersmith Hospital, Imperial College London
Duncan Spalding, Department of Surgery and Cancer, Hammersmith Hospital, Imperial College London
Panagiotis Vlavianos, Department of Gastroenterology, Hammersmith Hospital, Imperial College London
Long R Jiao, Department of Surgery and Cancer, Hammersmith Hospital, Imperial College London
Ali Alsafi, Imaging Department, Hammersmith Hospital, Imperial College London

Introduction: Percutaneous biliary stone clearance has seen a decline over the years as ERCP achieves high rates of success. With an increasing number of patients undergoing gastric, bariatric, biliary and pancreatic surgery, percutaneous stone clearance is seeing a resurgence as ERCP may not be possible in these patients. **Aim:** To evaluate the safety and efficacy of percutaneous biliary stone clearance in a single hepatopancreaticobiliary centre. **Materials and Methods:** All patients who underwent percutaneous biliary stone clearance between 2010 and 2020 at XXXXXXXXXX Hospital were identified from the radiology information system. Their demographic data, presentation, previous surgery, number / size of biliary calculi, success and complications were collected from patient records. Unpaired student t-test was used to compare numerical variables and the Chi- square test was used to compare categorical data. **Results:** 68 patients aged between 58.5 ,Äì 91.1 years underwent the procedure. 42.6% (29/68) had the procedure due to surgically altered anatomy precluding ERCP. The most common presentation was cholangitis (60%). The success rate of percutaneous stone clearance was 92.7%. The average number of calculi was 2 [1 - 4]. 4.4% of patients developed pancreatitis, 4.4% developed cholangitis and 1.5% had hepatic artery branch pseudoaneurysm successfully treated with transarterial embolization. There was no significant difference in success or complication rates between the different access sites (right lobe, left lobe, roux-loop, T-tube, p=0.7767). **Conclusion:** Percutaneous biliary stone clearance is safe and effective and will continue to play an important role where ERCP fails or is impossible due surgically altered anatomy.

ABSTRACTS

Scientific Session 5: Farrago

Friday 10th December 2021, 10:15 – 11:15, Lomond Auditorium. Session Chairs: Dr Simon Travis & Pavan Najran

OP002782 – SAFETY OF EEG-GUIDED PROCEDURAL SEDATION

Alexander Oh, Dept. of Radiology, The Christie, Scott Hodgetts, Dept. of Radiology, The Christie
Gregory Royle, Dept. of Radiology, The Christie, Kevina McCleary, Integrated Procedures Unit, The Christie
Liam Maxfield, Dept. of Radiology, The Christie, Hans-Ulrich Laasch, Dept. of Radiology, The Christie

Aims: To re-evaluate our IR team,Äôs compliance with an updated sedation protocol and the overall safety of EEG-guided nurse administered sedation. **Materials and Methods:** This was a re-audit after appointment of new team members and updated RCR and departmental guidelines. Consecutive patients undergoing procedural sedation from April 2021 were prospectively audited. Monitoring included HR, BP, O2 and bispectral-index-sensor EEG (BIS). Capnography was not used. Sedo-analgesia (midazolam/ fentanyl) was administered by trained IR nurses to a target BIS of 80-85, with increments stratified by patients,Äô age >60 and ASA >2. 12 standards were defined. Primary safety standards included O2>94%, no medical need for reversal agents or airway management. Ideal maximum doses were 10mg midazolam and 200?g fentanyl. **Results:** To date 43 patients (median 70 years, 38-89) have been evaluated. Commonest procedures were oesophageal stent (9), oesophageal dilatation (7) and PTC (6). Baseline and average intra-procedural BIS were 85.6 +/- 11.8 and 80.6 +/- 11.38 (mean +/- STD) respectively. All 7 clinical standards incl. drug doses were met. Five secondary documentation standards missed their 95% target (e.g. ASA status, blood sugar for diabetics). No sedation complications occurred, specifically no patient became hypoxic, needed airway management or reversal agents. 1 patient required extended recovery, as initial doses were given through a tissued cannula. **Conclusion:** Interim results confirm our 2013 data, that EEG-guidance is an exceptionally safe method of sedation, not only displaying the presence or absence of complications, but giving a real-time objective measure of depth of sedation, thus predicting the safety of further drug administration. Minor issues with procedure documentation need to be addressed through further training.

SPOP002852 – RADIAL VERSUS FEMORAL PROSTATE ARTERY EMBOLISATION: BIG DIFFERENCE?

Simon Zakeri, Vascular Radiology, Manchester University NHS Foundation Trust
Dr Nirmal Kakani, IR, Royal Alexandra, Dr Ananth Krishnan, IR, Manchester royal infirmary, Dr Fahad Mohammad

Aims: To assess the influence of radial versus femoral routes of access on case time, radiation and contrast exposure in patients undergoing prostate artery embolisation (PAE). **Materials and Methods:** This retrospective study included sixty patients in total: n=30 in the radial PAE group, and n=30 in the femoral PAE group. All cases were performed by one of two senior vascular radiology consultants between May 2018 and January 2021, using the same standardised technique for each approach. Outcome measures included case time (mm:ss), screening time (min:ss), dose area product (DAP, ¬µGym2), air kirma (mGy), and contrast volume used (mL). **Results:** The radial and femoral groups were matched for age (73.2¬±7.5 vs. 71.3¬±10.14, p=0.41) and BMI (27.53¬±5.08 vs. 26.41¬±3.93, p=0.38), with no significant difference in the type of contrast agent used (visipaque or omnipaque, p=0.44). No significant difference in the outcome measures was found between radial and femoral PAE using the t-test or Wilcoxon test. However, following linear regression factoring in operator differences, the radial cases were quicker to perform (-22.41 minutes (¬±10.69), p<0.05), and used less contrast (-25.99 mL (¬ ±11.29), p<0.05). There remained no significant difference in screening time, air kirma, or DAP with the radial approach. **Conclusion:** Our results suggest that radial PAE offers similar patient screening time and radiation dose with lower case time and contrast usage than femoral PAE. Larger multicentre studies would be recommended for further evaluation.

SPOP002726 – THE FINANCIAL IMPACT OF CORRECT CLINICAL CODING IN THE INTERVENTIONAL RADIOLOGY DEPARTMENT

Varsha Halai, Interventional Radiology, Queen Alexandra Hospital, Portsmouth
Dr Shian Patel, Interventional Radiology, Southampton General Hospital
Dr Drew Maclean, Interventional Radiology, Southampton General Hospital
Dr Anmol Gangi, Interventional Radiology, Queen Alexandra Hospital, Portsmouth
Dr David Flowers, Interventional Radiology, Queen Alexandra Hospital

Aims: To determine the clinical coding accuracy of day case interventional radiology (IR) vascular procedures and to evaluate the associated financial implications of improved coding. **Materials and methods:** Patients undergoing daycase lower limb angioplasty over a 2 week period at Queen Alexandra Hospital IR department in May 2017 were retrospectively audited. Each patient,Äôs comorbidities were extracted from clinical documentation and a pay tariff was calculated. This was then compared with the actual tariff allocated for each patient by the hospital coding department which had been determined by the co-morbidities recorded on patient discharge summaries. The findings were presented to the radiology department and a audit was performed in September 2020. **Results:** A loss of ¬£402,714 income was identified when the results of the initial audit were extrapolated over the financial year and this was presented to the radiology department in order to provide training. Re-auditing showed a significant improvement with only ¬£72,450 extrapolated annual loss of income. **Conclusion:** Many patients undergoing peripheral arterial intervention have long standing co-morbidities which can increase the procedural reimbursement to the department. Some examples of commonly missed co-morbidities include hyperlipidaemia, smoking, living alone, presence of a foot ulcer and requiring mobility assistance. Clinical coding is important, small improvements can lead to large rewards and after highlighting this problem to the department we were able to significantly improve this. An increase in the income to the IR department will result in more funding available to set up new services and purchase new equipment.

OP002918 – STEERABLE MICROCATHETERS IN PAE: A NOVELTY OR A NECESSITY?

Shian Patel, University Hospitals Dorset NHS Trust
David Beckett, University Hospitals Dorset NHS Trust
Clare Bent, University Hospitals Dorset NHS Trust

Aim: To evaluate the cost, procedural time and radiation dose difference between using a steerable or conventional microcatheter for prostate artery embolisation (PAE). **Materials and methods:** Seven patients underwent PAE for benign prostatic hyperplasia (BPH) using a steerable microcatheter ('SwiftNINJA'; Merit Medical Systems, South Jordan, Utah) as part of a local quality improvement (QI) initiative. The control arm underwent PAE with a conventional microcatheter. These patients were retrospectively matched for iliac tortuosity, atherosclerosis and the use of adjunctive protective coil embolization of collaterals. Statistical evaluation was performed with Microsoft Excel. **Results:** In the steerable microcatheter group, the overall procedural time was reduced by an average of 11.1 mins. The fluoroscopy time was reduced by an average of 4.4 mins. The skin dose was reduced by 240.2 mGy and the patient dose area product (DAP) was reduced by 2,719.11 microGym2. The cost of consumables was £636.52 more expensive in steerable microcatheter cohort. Unpaired T-test showed that these differences were not statistically significant. **Conclusion:** The use of a steerable microcatheter shows a trend towards faster procedure times and lower radiation doses. However, the average increase cost may not justify their use in day-to-day PAE practice. More patients are required to demonstrate statistical significance of our early findings. Results will be updated as data collection continues to complete our local QI initiative.

OP002793 – BSIR SNAPSHOT SURVEY 2021

Katrina Harborne, Radiology, Worcester Acute Hospitals NHS Trust
Paul Jenkins, Radiology, Peninsula Radiology Academy
BSIR Audit and Registries Committee, Audit and Registries BSIR

Aims: The BSIR Annual Snapshot Survey aims to gain an insight into current IR practice within the UK. The 2021 survey focussed on pandemic,Äôs impact on the UK IR community, including changes to working patterns and any protective factors within individual IR departments. **Materials and Methods:** A short online questionnaire was emailed to BSIR members in February 2021. **Results:** There were 49 responses, from a range of institutions and from consultants with both pure IR and mixed IR and diagnostic job plans. Most departments experienced either a decreased workload (19/49) or the same volume, but different types of case (20/49). There were more urgent cases, particularly vascular access, thrombolysis and non-vascular intervention. Cases took longer due to infection control precautions causing slower flow. Noncancer IR (eg EVAR, UAE and PAE) was stopped, or occurred at a much-reduced rate. Many departments lost vital resources, such as hybrid theatres (7/16), admitting rights (4/16) and day case beds (14/23). Staff were lost due to sickness (35/49) and redeployment (6/49 medical staff and 22/49 nursing and other staff). Many departments also lost non-IR resources, such as anaesthetic support (26/49), access to theatre (19/49) and ITU beds (25/49). Over half of the responses found that dedicated IR day case beds were a protective factor which enabled the service to continue to run (29/49). **Conclusion:** The findings indicate that whilst the pandemic had variable effects in different departments, most saw a significant change or reduction in workload, with access to dedicated day case beds being a protective factor for the service.

SPOP002869 – IS THERE REALLY NO KIT FOR KIDS? QUANTIFICATION OF MANUFACTURER RECCOMMENDATIONS REGARDING PAEDIATRIC USE FOR HIGH VOLUME IR DEVICES

Ruchir Shah, Radiology Department, Great Ormond Street Hospital for Children
Kishore Minhas, Radiology Department, Great Ormond Street Hospital for Children
Premal Patel, Radiology Department, Great Ormond Street Hospital for Children

Aims: The development of paediatric specific devices appears to lag behind advancements in our specialty. Children could therefore be limited in the number of procedures available to them unless we continue to use and modify adult devices ,Äòoff-label,Äô. This study quantifies the proportion of IR devices in which paediatric use is indicated by the manufacturer. **Materials & Methods:** Cross-sectional analysis of device instructions for use (IFU), assessing inclusion of children was performed. Vascular access, biopsy, drainage, and enteral feeding devices, from 36 companies who sponsored BSIR 2020, CIRSE 2020 and SIR 2020 as determined by the meeting websites, were included. Devices for which the IFU was not available were excluded. **Results:** 91 (33 vascular access, 26 biopsy, 30 drainage and 2 feeding) devices with IFU,Äôs from 10/36 medical device companies were assessed. 24/91 (25%) IFU,Äôs referenced children. 3/91 (3%) explicitly stated the product could be used in children and 1/91 (1%) explicitly stated the product was not for use in children. 20/91 (22%) implied they could be used in children. These 20 products,Äô IFUs contained 45 caution notes which could relate to children; most commonly relating to the safety profile of phthalates that have not been evaluated in paediatrics (13/91). **Conclusions:** This data identifies an unmet need for paediatric IR devices and could be used to support their future development of devices intended for the children we treat. There is potentially a larger proportion (22%) of devices suitable for paediatric use but which lack manufacturer explicit support.

Scientific Session 6: Embolisation

Friday 10th December 2021, 10:15 – 11:15, Alsh. Session Chairs: Dr Conrad Von Stempel & Dr Raj Bhat

OP002824 – UTERINE ARTERY EMBOLISATION FOR GIANT FIBROIDS: DOES IT WORK?

Ebrahim Y A Palkhi, Radiology, York and Scarborough Teaching Hospitals NHS Foundation Trust
Anthony Bowker, Radiology, York and Scarborough Teaching Hospitals NHS Foundation Trust
Bahir Almazedi, Radiology, York and Scarborough Teaching Hospitals NHS Foundation Trust

Aims: Uterine artery embolisation (UAE) for the treatment of symptomatic giant fibroids is a controversial entity with limited evidence of long-term clinical outcomes compared to surgery. We aim to demonstrate the long-term clinical effectiveness of giant uterine fibroid embolisation (UFE) in addition to assessing the response on imaging. **Materials and methods:** Forty consecutive UAE procedures for giant fibroids (defined as overall fibroid uterus volume >= 700cm3 and/or dominant fibroid dimension >= 10cm) performed between 2016 and 2019 were individually analysed over a minimum 2-year follow-up (range 24 - 63 months) using electronic patient records and MR imaging pre and 3 months post embolisation. Clinical efficacy parameters included symptom control, complication/readmission and subsequent treatment rates. Radiological parameters included percentage reduction in fibroid enhancement and size including overall uterine volume post embolisation. **Results:** Clinical improvement in symptoms was observed in 38/40 (95%) patients following UAE over the follow-up period. Mean percentage reduction in uterine/dominant fibroid volume at 3- month MRI follow-up was 37% (range 7 - 100%). Complete fibroid infarction (>90% lack of enhancement) was seen in 37/40 (92.5%) patients and 3 (7.5%) showed partial fibroid infarction (50-90% lack of enhancement) at 3 month MRI follow-up. Five patients (12.5%) required further treatment including hysteroscopy for prolapsed fibroid (3/40), hysterectomy for ongoing symptoms (1/40) and total hysterectomy and washout for ruptured necrotic fibroid and intra-abdominal sepsis (1/40). **Conclusion:** Our local experience and results have shown that giant UFE is effective and safe with similar long-term outcomes to non-giant UFE and offers an alternative uterine sparing treatment option to conventional surgery.

SPOP002858 – ACCURACY OF CONTRAST-ENHANCED CT IN DIAGNOSING VASCULAR INJURY IN PATIENTS WITH BLUNT SPLENIC TRAUMA WHO UNDERWENT ANGIOGRAPHY

Nawaz Safdar, School of Medicine, University of Leeds
Jim Zhong, Diagnostic and Interventional Radiology, Leeds Teaching Hospitals NHS Trust
Karen Flood, Diagnostic and Interventional Radiology, Leeds Teaching Hospitals NHS Trust

Aim: Contrast-enhanced CT (CECT) may be used to diagnose vascular injury in patients with blunt splenic trauma. This study aims to determine the accuracy of CECT in demonstrating splenic vascular injury based on results of splenic angiography **Materials and Methods:** Data on consecutive splenic trauma patients who underwent both CECT scans and angiography for blunt abdominal injury between 01/01/2010 and 01/09/2020 were collected retrospectively from the hospital radiology system. This included patient demographics and, presence of a vascular injury categorised as active bleeding, pseudoaneurysm or equivocal vascular injury as reported on the initial CECT scan compared with findings on subsequent angiography. Change in imaging findings was displayed on a Sankey Chart. **Results:** 53 patients were identified and 6 excluded due to insufficient information. Median age (range) was 43 years (18-78) with 37 males and 10 females. The vascular injuries on CECT included active bleeding only (n=27, 57%), pseudoaneurysm only (n=2, 4%), active bleed and pseudoaneurysm (n=2, 4%), and equivocal (n=6, 13%). Ten patients (21%) had splenic injury with no vascular injury seen on CECT but proceeded to angiography due to haemodynamic deterioration. In 19 patients (40%), subsequent angiography changed the vascular injury diagnosis. The angiography findings were active bleeding (n=21, 45%), pseudoaneurysms (n=18, 38%) or negative (n=11, 23%). Sensitivity and specificity for active bleeding, on CECT, were 88.9% and 43.5%, respectively. **Conclusion:** CECT is highly sensitive at diagnosing vascular injury, however differentiating between active bleeding and pseudoaneurysms can be difficult. Clinical judgement and delayed phase imaging should therefore be utilised for improved accuracy.

SPOP002880 – EARLY EXPERIENCE AND OUTCOMES OF PROSTATE ARTERY EMBOLISATION (PAE) SERVICES IN A TERTISRY REFERRAL CENTRE.

Vinay Kumar Doddaballapur, Interventional Radiology, Southmead Hospital
Peter Mezes, Interventional Radiology, Southmead Hospital

Aim: PAE represents a safe and effective option for management of patients with moderate to severe LUTS, especially patients with large prostates who are not ideal surgical candidates. We aim to evaluate the safety, morbidity, and functional outcomes after PAE. **Material and methods:** Single institution prospective study of PAE procedures. Clinical information and outcome data was retrieved from the hospital radiology information system and electronic medical records. **Results:** A total of 31 consecutive patients with age range between 57-87 years were assessed. 29/31 (93%) had technically successful embolisation. Mean peak skin dose was 1178 mGy and mean fluoroscopy time was 30.2 minutes. In catheterised subgroup successful TWOC was achieved in 8/11 (72.7%) and they remained catheter free at 12 months. In non-catheterised group (19 patients), 3 were lost to follow up. 13/16 (81%) had improvement in ICIQ-MLUTS scores (>30% from baseline) at 6 month follow up and symptom improvement persisted in 60% at 12 months. One patient had grade II urosepsis treated with IV antibiotics. **Conclusion:** As a tertiary centre providing PAE service we performed exceedingly well with good technical success and no major procedure related complication. Clinical success is 81.5 % at 3 months which declines slightly to 70% at 12 months explained by the patient selection with difficult vascular anatomy and small prostate volume. We had good clinical success in catheterized sub-group of patients who have limited surgical options.

SPOP002903 – SUCCESSFUL RADIOLOGICAL MANAGEMENT OF ACTIVE MUSCULAR BLEEDING FOLLOWING SURGICAL HIP PROCEDURES

Alexander Macaulay, Radiology, St Peters Hospital
Nayani Punati, Radiology, St Peters Hospital
Shirish Prabhudesai, Radiology St Peters Hospital

Aims: To investigate injury to the muscular arteries during hip surgeries, which can result in active bleeding/haematoma if adequate haemostasis is not achieved. To evaluate radiological embolization as an alternative to emergency surgical exploration to arrest bleeding. **Materials and Methods:** A retrospective collection of illustrative cases detailing successful radiological management of active muscular bleeding following surgical hip procedures. **Results:** Case 1: 62F with right NOF fracture; underwent THR through lateral incision . Unstable BP & low Hb in the post-operative period necessitated an imaging study which showed active bleeding from medial muscular branch of profunda, managed with coil embolization. Case 2: 77M with left NOF fracture; underwent THR with an antero-lateral incision. Worsening haematoma prompted investigation revealing a bleeding pseudoaneurysm from a left lateral circumflex femoral artery muscular branch. Managed with coil embolisation. Case 3: 54M with right hip fracture underwent right long PFNA through lateral incision. Became haemodynamically unstable on 4th postoperative day. Angiography revealed a bleed from a right superior gluteal artery muscular branch which was successfully coil embolised. Case 4: 75M had left PFNA inserted through lateral approach; On POD 6 he had dropping Hb. Angiography revealed a 2.2cm bleed from muscular branch of profunda, managed with coil embolisation. **Conclusion:** Injury to the arteries supplying the nearby muscles during hip surgeries results in active bleeding, haemodynamic instability and haematoma formation in the post-operative period. Coil embolization is a promising intervention to stop bleeding in such conditions.

SPOP002791 – SPLENIC EMBOLISITION AND FACTORS AFFECTING DELAY (SPEED)

Paul Jenkins, Radiology, Plymouth Hospitals NHS Trust
Unite, Radiology, IR Juniors collaborative
Kat Harbourne, Radiology, Worcestershire Acute Hospital
James Harding, Rad, Plymouth Hospitals NHS Trust

Aims: To quantify the variability practice in splenic embolization in traumatic injury in Major Trauma Centres within the United Kingdom and analyse the impact of IR service design on embolization rates and time to embolization. **Materials and Methods:** This retrospective cohort study using the Trauma and Audit Research Network (TARN) registry for anyone aged 18+ coded as having a traumatic splenic injury will then be cross checked at the 22MTCS radiological information system to review procedural details. Further information on the departmental procedures will be obtained via a questionnaire. The study period is 2 years from 01/01/2019 and 01/01/2021. **Results:** We have anticipate all 22 MTC's within England participating in this audit.. We will present patient demographics, procedural details and outcome data correlated with departmental factors affecting outcomes and time to intervention. **Conclusion:** TBC

SP002873 – A RETROSPECTIVE REVIEW OF TRAUMA PATIENTS WITH SOLID ORGAN INJURY REQUIRING EMBOLISATION

Bhavin Kawa, Radiology, St George's Hospital
Lima Hamidi, Radiology, St George's Hospital
Leto Mailli, Radiology, St George's Hospital
Raj Das, Radiology, St George's Hospital
Robert Morgan, Radiology, St George's Hospital
Lakshmi Ratnam, Radiology, St George's Hospital

Aims: To review the success rate and complications of patients undergoing solid organ trauma embolisation at our regional trauma center. To correlate trauma severity (AAST classification utilised) with the requirement for embolisation. **Materials and Methods:** Retrospective review of trauma patients with solid organ injuries who had subsequent embolisation between January 2016 and January 2021; and their complication outcomes were identified. Patients who required embolisation secondary to non-traumatic causes were excluded. **Results:** Between 1 January 2016 and 1 January 2021, a total of 63 trauma embolisations were performed on solid organ injuries. The vast majority were splenic (46) followed by liver (10) and renal injuries (9). 52.4% of embolisations were performed on AAST grade 5 injuries. No immediate post-procedure complications were identified, however, expected sequelae included 2 patients with infected hematomas after hepatic artery embolisation; 1 patient with significant liver infarction after hepatic artery embolisation; 1 patient with loss of renal function after renal artery embolisation, and 4 patients with significant splenic infarctions after splenic artery embolisation. Three patients required further intervention after their embolisation procedure due to rebleeding; 1 requiring repeat splenic embolisation and 2 patients requiring splenectomy. **Conclusion:** Our review demonstrated solid organ trauma embolisation has good technical and clinical outcomes for patients. High-grade splenic trauma comprised the majority of trauma embolisations. Low-grade trauma was shown to be managed well conservatively which provides useful data to guide clinical conversations on appropriate patient management.

BSIR 2022

ANNUAL MEETING

MEETING ANNOUNCEMENT

1ST - 3RD NOVEMBER 2022
SEC, GLASGOW

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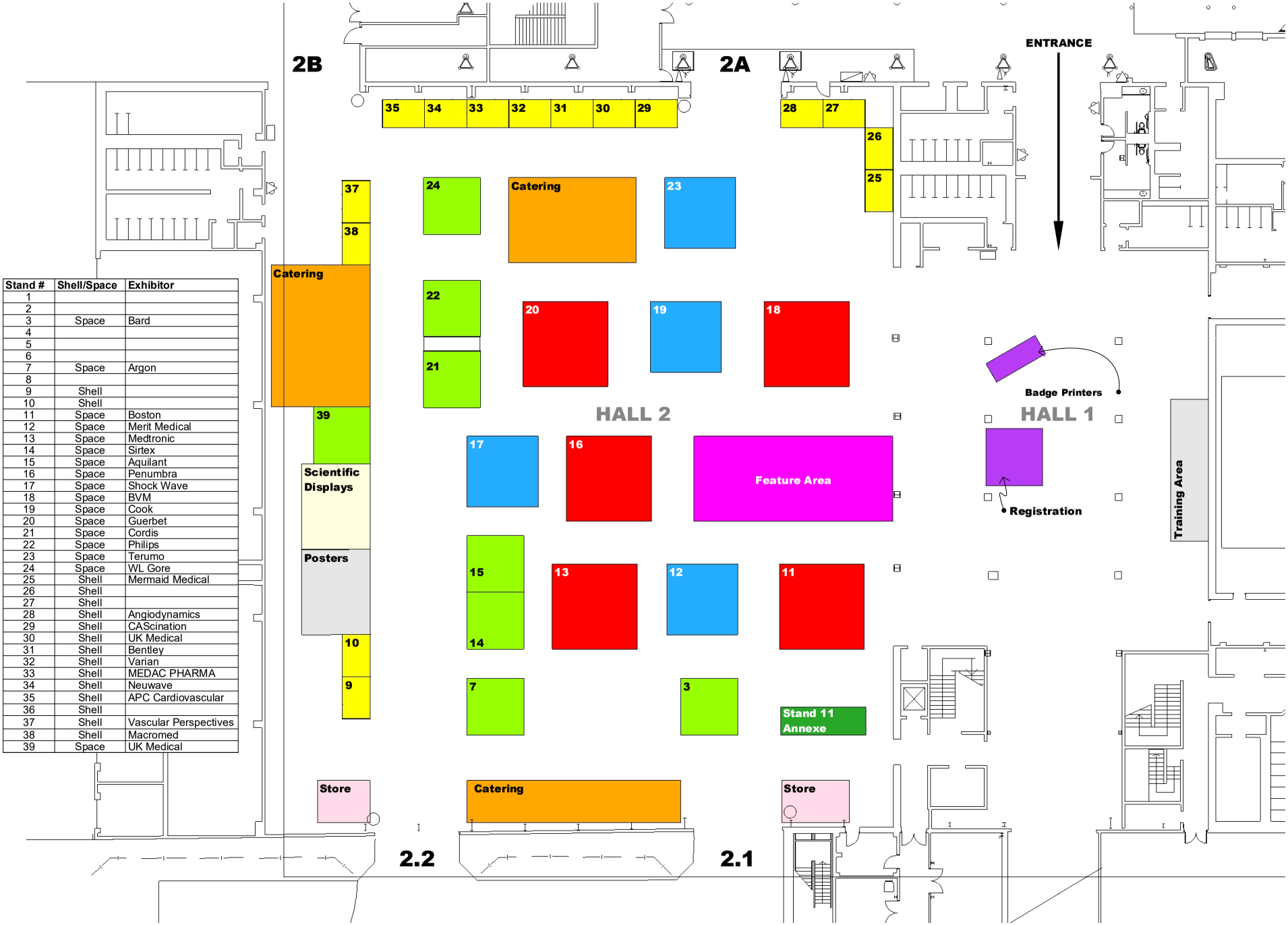

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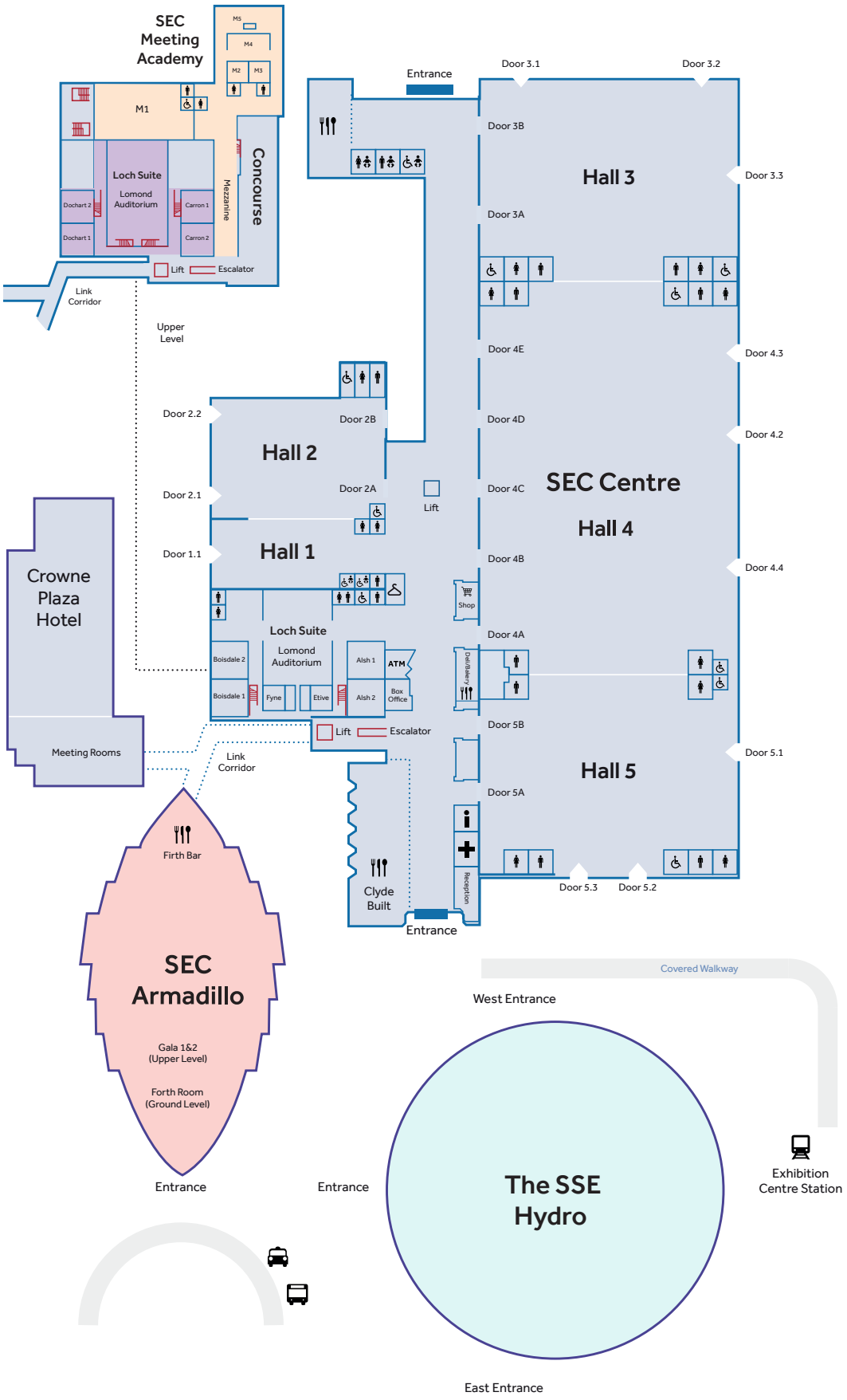

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This programme allows IR trainees and IR Doctors to share their views, cases and knowledge surround IR and relevant topics. You will have access to the BSIR Twitter account for an entire week. This is a great opportunity to not only share your work but also network with others. If you would like the opportunity to participate, please contact socialmedia@bsir.org or visit Bethan at the Social Media Hub in Hall 1.

This year's Hashtags are below:
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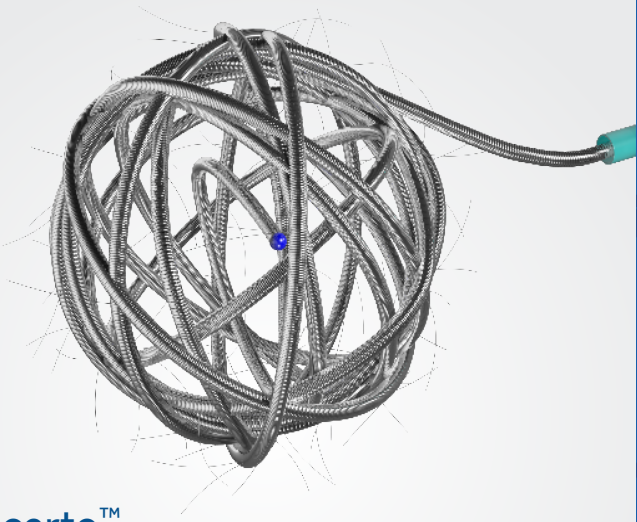

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BSIR ADVANCED PRACTICE COURSE 2022

27th & 28th April 2022

Manchester Central, Windmill Street Manchester, M2 3GX

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Royal Preston Hospital, Preston, UK

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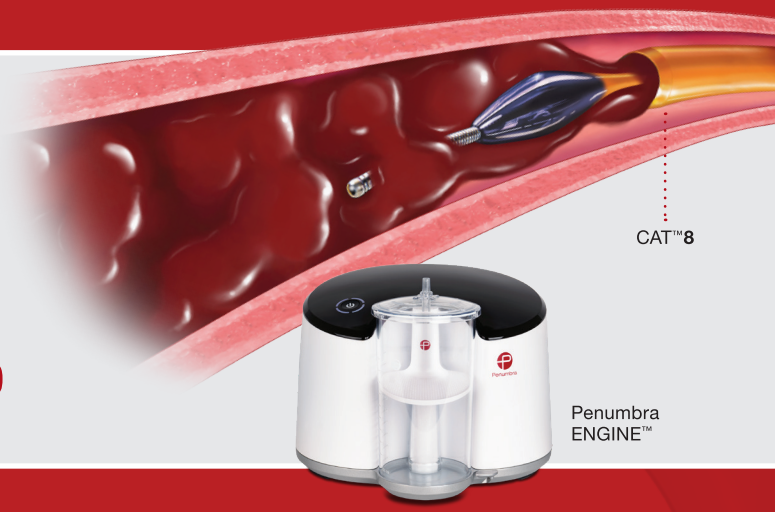
Thursday, December 9th • 10:00–10:30

Indigo System Hands-On Workshop

Boisdale Room
Thursday, December 9th • 10:30–11:00



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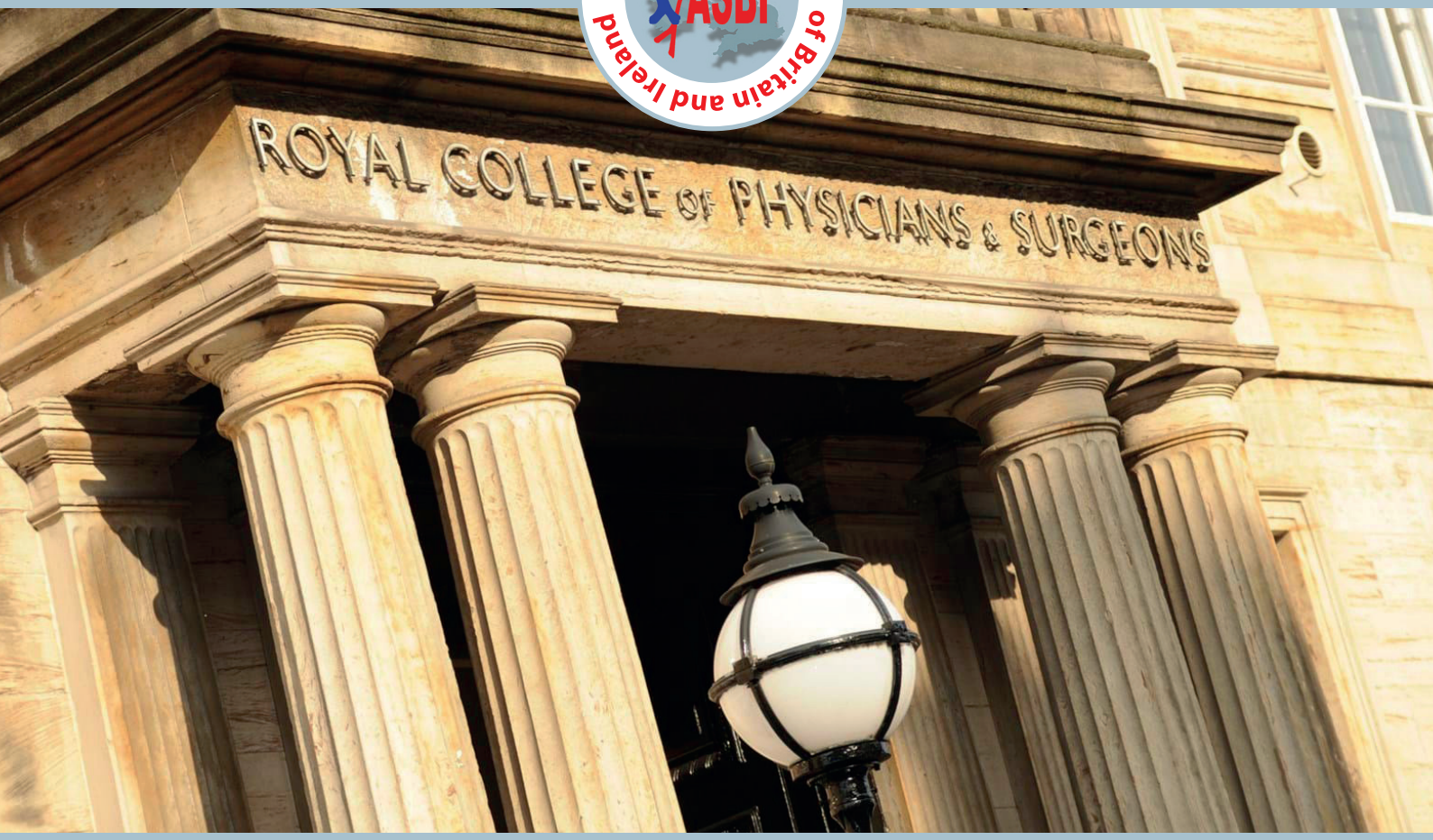

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29TH & 30TH SEPTEMBER 2022

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