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British Society of
Endovascular Therapy

2025 ANNUAL MEETING

26th – 27th June 2025 • Tortworth Court Hotel, South Gloucestershire

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British Society of
Endovascular Therapy

Annual Meeting 2025

Thursday 26th June - Friday 27th June
Tortworth Court Hotel, South Gloucestershire

PROGRAMME

ABSTRACT SESSIONS

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PROGRAMME

Thursday 26th June

09.00 – 09.05	**WELCOME**	
	Bijan Modarai, BSET President	
09.05 – 09.35	**ROULEAUX CLUB AND BSIRT SYMPOSIUM**	
	Chairs: Bijan Modarai, BSET President, Sai Wunnava, Rouleaux Club representative and Alex Hardman, BSIRT representative	
09.05 – 09.15	**Role of AI/augmented reality in endovascular interventions**	
	Maciej Juszczak, *Consultant Vascular Surgeon, University Hospitals Birmingham NHS Foundation Trust*	
09.15 – 09.25	**How do Vascular and IR learn how to lean on each other for the first few years**	
	Becky Sandford, *Consultant Vascular Surgeon, Guy's & St Thomas' Hospital, London &* ***Narayanan Thulasidasan,*** *Consultant Interventional Radiologist, Guy's & St Thomas' Hospital, London*	
09.25 – 09.35	**Discussion**	
09.35 – 09.50	**BSET FELLOWSHIP REPORT**	
	Chairs: Emma Wilton & Paul Moxey	
09.35 – 09.40	**2024 Training Fellowship**	*Ellie Atkins*
09.40 – 09.45	**2024 Travel Fellowship**	*Mohammed Chowdhury*
09.45 – 09.50	**2024 Travel Fellowship**	*Colin Primrose*
09.50 – 10.30	**ABSTRACT SESSION 1 (4 + 2 minutes)**	
	Chairs: David Bosanquet, Nikesh Dattani & Becky Sandford	
09.50 – 09.56	Reproductive factors and the risk of incident peripheral arterial disease hospitalisation or death. A cohort study of UK Biobank participants	
	Anna Louise Pouncey[1], *Mark Woodward*[2], *Katie Harris*[2], *Rebecca Kelly*[2] [1]City St George's University of London, London [2]The George Institute for Global Health, Sydney, Australia	
09.56 – 10.02	Operative exposure for senior vascular trainees in peripheral vascular disease and abdominal aortic aneurysm over the last 10 years	
	Steve Tang[1], *Kaji Sritharan*[2] [1]Aintree University Hospital, Liverpool [2]York Hospital, York	

Thursday 26th June

10.02 – 10.08	**Spatiotemporal trends in peripheral artery disease prevalence in England – primary care registry data analysis**
	Michal Kawka[1], *James Budge*[1], *Anna Pouncey*[1], *Bilal Azhar*[1], *Ian Loftus*[2], *Peter Holt*[1], *Iain Roy*[1] [1]St George's Vascular Institute, City St George's University of London, London [2]Department of Vascular Surgery, St George's Hospital, London
10.08 – 10.14	**Stent configuration for endovascular iliocaval reconstruction - a systematic review**
	Ashwin Sivaharan[1], *Celina Harmen*[2], *Alice Coates*[2], *Babatunde Alatishe*[1], *Rana Khalil*[3,4], *Tamer El-Sayed*[1], *Sandip Nandhra*[1] [1]Freeman Hospital, Newcastle [2]Newcastle University, Newcastle [3]Hull Royal Infirmary, Hull [4]Kasr Al-Aini Hospital, Cairo, Egypt
10.14 – 10.20	**Femoropopliteal angioplasty for long lesions Procedural success, patency, and reintervention in a high-risk cohort**
	Mahmoud Badawi Hassan[1], *Mohamed Abdelhamid*[2], *Shady Hemeda*[2] [1]ESNEFT, Colchester [2]St George's University Hospitals, London
10.20 – 10.26	**The relevance, specificity, and usability of the current Patient-reported Outcome Measure for Chronic Limb Threatening Ischaemia. A systematic review of reported PROMs**
	Akam Shwan[1,2,3], *Beth Cheshire*[1], *Segun Lamidi*[1], *Imelda Black*[1], *Coral Pepper*[4], *John SM Houghton*[1,2,3], *Robert D Sayers*[1,2,3] [1]Department of Cardiovascular Sciences, University of Leicester, Leicester [2]Leicester Vascular Institute, University Hospitals of Leicester NHS Trust, Leicester [3]NIHR Leicester Biomedical Research Centre, Leicester [4]Clinical Librarian Service, University Hospitals of Leicester NHS Trust, Leicester

10.30 – 10.50	**GUEST LECTURE (15 + 5 minutes)**
	Introduced by Martin Claridge
	First in man technologies for vascular disease: What have we learnt from the past and what do we still need to learn?
	Andrew Holden, *Director of Interventional Radiology, Auckland City Hospital, New Zealand*

10.50 – 11.20	**COFFEE**

Thursday 26th June

11.20 – 11.40	DEBATE (5 minutes each)	
	Chairs: Paul Moxey, Rachel Bell & Jonathan Boyle	
	Modern endovascular techniques in lower limb revascularisation are no better than stent and plain old balloon angioplasty	
	FOR	**AGAINST**
	Peter Schneider, *Professor of Surgery, Division of Vascular & Endovascular Surgery, University of California, San Francisco, USA* ***Ash Patel,*** *Consultant Vascular Surgeon, Guy's & St Thomas' Hospital, London*	***Anahita Dua,*** *Vascular Surgeon, Massachusetts General Hospital and Associate Professor of Surgery, Harvard Medical School, Boston, USA* ***Athanasios Saratzis,*** *Professor of Vascular Surgery in the NIHR Leicester Biomedical Research Centre, Leicester*

11.40 – 12.00	SOCIETY SPONSOR	GORE MEDICAL
	Chairs: Paul Moxey & Rachel Bell & Jonathan Boyle	
	Optimising Aortic Arch Treatment: Clinical Experience with the First Off-the-Shelf Single Side-Branch Device for LSA Preservation	
	Marcus Brooks, *Consultant Vascular Surgeon, North Bristol NHS Trust*	

12.00 – 12.20	GUEST LECTURE (15 + 5 minutes)
	Chairs: Emma Wilton & Andy Wigham
	Cutting edge venous stenting and how to achieve success
	Manj Gohel, *Consultant Vascular Surgeon, Cambridge University Hospitals*

12.20 – 12.40	SOCIETY SPONSOR	MEDTRONIC
	Chairs: Emma Wilton & Andy Wigham	
	Leveraging AI to plan and predict outcomes in EVAR procedures	
	Dominic Howard, *Consultant Vascular Surgeon, John Radcliffe University Hospital, Oxford*	

Thursday 26th June

12.40 – 13.00	**UPDATE ON ACTIVE ENDOVASCULAR TRIALS IN THE UK (3 minutes)**
	Chairs: Dave Bosanquet & Becky Sandford
	EARNEST – *Colin Bicknell* **CLARITY** – *Chris Twine* **KID** – *Thanos Saratzis* **ESTABLISH** – *Sandip Nandhra* **EVOCC** - *Thanos Saratzis*

13.00 – 13.10	**BSET PUMP PRIMING AWARD REPORT**
	Chairs: Dave Bosanquet & Becky Sandford
13.00 – 13.05	*Mohamed Abdelhalim*
13.05 – 13.10	*James Budge*

13.10 – 14.15	**LUNCH**

14.15 – 14.35	**DEBATE (7 + 7 + 6 minutes)**	
	Chairs: Paul Bevis, Mike Jenkins & Anahita Dua	
	End of the Rainbow - Further developments in endovascular aortic intervention will not be beneficial and open surgery will remain the only reliable and durable solution for areas not currently treated by EVAR	
	FOR	**AGAINST**
	Andrew Holden, *Director of Interventional Radiology, Auckland City Hospital, New Zealand*	***Tara Mastracci,*** *Complex Aortic Surgeon, Barts Heart Hospital, London*

14.35 – 14.55	**SOCIETY SPONSOR**	**COOK MEDICAL**
	Chairs: Paul Bevis, Mike Jenkins & Anahita Dua	
	Customised solutions for the LSA: A single centre study	
	Donald Adam, *The Birmingham Vascular Centre, Heartlands Hospital*	

14.55 – 15.35	**ABSTRACT SESSION 2 (4 + 2 minutes)**
	Chairs: Ashish Patel, Sandip Nandhra & Colin Bicknell
14.55 – 15.01	The impact of aneurysm extent on mid-term survival after elective fenestrated-branch endovascular aortic repair
	Valentina Scarati[1], *Katarzyna Powezka*[2,1], *Thomas Lyons*[2,1], *Massimo Vezzosi*[1], *Maciej Juszczak*[1,2], *Martin Claridge*[1], *Donald Adam*[1] [1]University Hospitals Birmingham, Birmingham [2]University of Birmingham, Birmingham

Thursday 26th June

15.01 – 15.07	**Effectiveness of the MANTA Vascular Closure Device for repair of ruptured abdominal aortic aneurysm by Endovascular Aneurysm Repair (RAAA-EVAR) in rAAA- A pilot study**
	***Elsamoual Mohammed**, Arindam Chaudhuri, Ramita Dey* Bedford NHS Hospital, Bedford
15.07 – 15.13	**Central Blood Pressure and Variability Evaluation (CAVE-ON) Assessing the impact of blood pressure and blood pressure variability on AAA growth rates**
	***Edmund Charles**, Emanuela Falaschetti, Janet Powell, Neil Poulter, Colin Bicknell* Imperial College London, London
15.13 – 15.19	**Fenestrated-branch endovascular aortic repair in octogenarians**
	***Thomas Lyons**[1,2], Katarzyna Powezka[1,2], Valentina Scarati[1], Massimo Vezzosi[1], Martin Claridge[1], Maciej Juszczak[1,2], Donald Adam[1]* [1]University Hospitals Birmingham, Birmingham [2]University of Birmingham, Birmingham
15.19 – 15.25	**The impact of introducing a surgeon-led emergency EVAR service on outcomes and cost efficiency in ruptured aortic aneurysm management A UK single-centre experience**
	***Ahmed Hassan**, Ahmed Elshiekh, Nick Matharu, Alex Sergiou, Ashraf Elsharkawy, Asif Mahmood* UHCW-NHS, Coventry
15.25 – 15.31	**Bridging the Gap: A propensity-matched analysis of sex differences in complex EVAR**
	***Katarzyna Powezka**[1,2], Valentina Scarati[2], Thomas Lyons[1,2], Massimo Vezzosi[2], Martin Claridge[2], Donald Adam[2], Maciej Juszczak[1,2]* [1]University of Birmingham, Birmingham [2]University Hospitals Birmingham, Birmingham

15.35 – 15.55	**GUEST LECTURE (15 + 5 minutes)**
	Chairs: Ashish Patel and Sandip Nandhra
	Management of lower limb arterial disease: Where does distal vein arterialisation and personalised antiplatelet fit in?
	***Anahita Dua,** Vascular Surgeon, Massachusetts General Hospital and Associate Professor of Surgery, Harvard Medical School, Boston, USA*

15.55 – 16.15	**TEA**

Thursday 26th June

16.15 – 16.35	**SOCIETY SPONSOR**	**ABBOTT**
	Chairs: Kaji Sritharan, James McCaslin & Barend Mees	
	Initial experience of Stealth 360™ in a UK centre	
	Badri Vijaynagar, *Consultant Vascular and Endovascular Surgeon, University Hospitals of Leicester NHS Trust*	

16.35 – 16.55	**GUEST LECTURE (15 + 5 minutes)**
	Chairs: Kaji Sritharan, James McCaslin & Barend Mees
	When enough is enough: Defining the "no option" foot in the era of extreme limb salvage procedures
	Peter Schneider, *Professor of Surgery, Division of Vascular & Endovascular Surgery, University of California San Francisco, USA*

16.55 – 17.55	**AORTIC PRIZE ABSTRACT SESSION (7 + 3 minutes)**
	Chairs: Andrew Holden, Tara Mastracci and Shiva Dindyal
16.55 – 17.05	Long-term outcomes of Fenestrated Endovascular Repair (FEVAR) a GLOBALSTAR registry study
	Aurélien Guéroult[1], *British Society of Endovascular Therapy (BSET)*[2], *GLOBALSTAR Collaborators*[2] [1]St George's Vascular Institute, London [2]BSET
17.05 – 17.15	Comparison of outcomes of Physician Modified Grafts and Custom Made Devices - A matter of aesthetics?
	Thomas Lyons[1,2], *Katarzyna Powezka*[1,2], *Valentina Scarati*[2], *Massimo Vezzosi*[2], *Martin Claridge*[2], *Donald Adam*[2], *Maciej Juszczak*[2,1] [1]University of Birmingham, Birmingham [2]University Hospitals Birmingham, Birmingham
17.15 – 17.25	The detrimental effects of Endovascular Aneurysm Repair on aortic compliance
	Dimitrios Vlastos[1], *Athanasios Saratzis*[1], *Stefan Klimach*[2], *Emily Salt*[3], *Arooj Siddique*[4], *Rob D Sayers*[1], *Matthew J Bown*[1] [1]Department of Cardiovascular Sciences, University of Leicester, Leicester [2]Nottingham University Hospitals NHS Trust, Nottingham [3]University Hospitals Derby and Burton NHS Foundation Trust, Derby [4]University Hospitals of Leicester NHS Trust, Leicester

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17.25 – 17.35	**Unsupervised machine learning for identifying thrombogenic morphological phenotypes in abdominal aortic aneurysms using fully automated volume-segmented imaging**
	Michal Kawka[1], *James Budge*[1], *Bilal Azhar*[1], *Iain Roy*[1], *Manj Gohel*[2], *Matthew Bown*[3], *Ruth Scicluna*[3], *Janet T Powell*[4], *Anna L Pouncey*[1] [1]St George's Vascular Institute, City St George's University of London, London [2]Department of Vascular Surgery, Cambridge University Hospitals, Cambridge [3]Department of Cardiovascular Sciences and NIHR Leicester Biomedical Research Centre, Leicester [4]Department of Surgery and Cancer, London
17.35 – 17.45	**Fenestrated-branch endovascular aortic repair after prior endovascular or open AAA repair is associated with inferior mid-term survival compared to primary repair**
	Katarzyna Powezka[1,2], *Thomas Lyons*[2], *Valentina Scarati*[2], *Massimo Vezzosi*[2], *Martin Claridge*[2], *Maciej Juszczak*[1], *Donald Adam*[2] [1]University of Birmingham, Birmingham [2]University Hospitals Birmingham, Birmingham
17.45 – 17.55	**Novel protocol for comprehensive assessment of Type B Aortic Dissection morphology: A validated and reproducible protocol for clinical and research applications**
	Barnaby Farquharson, *James Budge, Bilal Azhar, Aurélien Guéroult, Mital Desai, Ian Loftus, Peter Holt* St George's University London, London

17.55	**THE PRESIDENT'S DEBATE**	
	Introduced by Martin Claridge	
	Shift left, stay left - translational research is the gold standard in improving outcomes for patients with vascular disease	
	FOR	**AGAINST**
	Bijan Modarai	*Ian Chetter*
18.15	**END OF DAY ONE**	
19.45	**DINNER**	

Friday 27th June

8.30 – 9.00	**ABSTRACT SESSION 3 (4 + 2 minutes)**
	Chairs: Shiva Dindyal, Katharine Lewis & Ian Chetter
8.30 – 8.36	**Implementation of Machine Learning and Natural Language Processing in clinical practice facilitates identification of patients with Acute Aortic Syndrome**
	Katarzyna Powezka[1,2,3], *Karin Slater*[2], *Andreas Karwath*[2], *Michael Wall*[3,2], *Georgios Gkoutos*[2], *Massimo Vezzosi*[1], *Martin Claridge*[1], *Paul Clift*[1], *Donald Adam*[1], *Maciej Juszczak*[1,2] [1]University Hospitals Birmingham, Birmingham [2]University of Birmingham, Birmingham [3]Dudley Group NHS Trust, Dudley
8.36 – 8.42	**Systematic review and meta-analysis of matrix metalloproteinases in peripheral arterial disease**
	Chloe Harding[1,2], *Philip Stather*[1] [1]Norfolk and Norwich University Hospital, Norwich [2]University of East Anglia, Norwich
8.42 – 8.48	**Clinical predictors of two-year survival in patients with infrarenal and juxtarenal abdominal aortic aneurysms**
	Valentina Scarati[1], *Katarzyna Powezka*[2,1], *Thomas Lyons*[2,1], *Massimo Vezzosi*[1], *Martin Claridge*[1], *Donald Adam*[1], *Maciej Juszczak*[1,2] [1]University Hospitals Birmingham, Birmingham [2]University of Birmingham, Birmingham
8.48 – 8.54	**Acute upper limb ischaemia outcomes meta-analysis**
	Angela Lee[1,2], *Navanith Murali*[1], *Chloe Harding*[2], *Joseph Borucki*[1,2], *Philip Stather*[1,2] [1]NNUH, Norwich [2]UEA, Norwich
8.54 – 9.00	**A comprehensive systematic review of all reported outcome measures in studies of chronic limb threatening ischaemia First step toward a core outcome set**
	Akam Shwan[1,2,3], *Beth Cheshire*[1], *Segun Lamidi*[1], *Imelda Black*[1], *Coral Pepper*[4], *John SM Houghton*[1,2,3], *Robert D Sayers*[1,2,3] [1]Department of Cardiovascular Sciences, University of Leicester, Leicester [2]Leicester Vascular Institute, University Hospitals of Leicester NHS Trust, Leicester [3]NIHR Leicester Biomedical Research Centre, Leicester [4]Clinical Librarian Service, University Hospitals of Leicester NHS Trust, Leicester

Friday 27th June

9.00 – 9.20	**VASCULAR SOCIETY SESSION**
	Chairs: Ian Chetter & Keith Jones
	Inclusivity and engagement across the activities of the Vascular Society *Ian Chetter*
	What have we learnt from aortic device data collection on the NVR? *Colin Bicknell*
	NCEPOD-ALI: What would it take for percutaneous embolectomy to be first line therapy in ALI? *Keith Jones*

9.20 – 9.30	**GOLD SPONSOR PRESENTATION**	**TERUMO AORTIC**
	Chairs: Colin Bicknell & Raghuram Lakshminarayan	
	The Role of EVAR in Aneurysm Healing Insights from Sac Regression Data	
	Dr Martin Teraa, University Medical Centre Utrecht	

9.30 – 9.50	**DEBATE (7 + 7 + 6 minutes)**	
	Chairs: Rachel Bell and Raghuram Lakshminarayan	
	No time to lyse: Treatment of chronic DVT is the only worthwhile intervention as there is no long-term benefit from treatment of acute DVT	
	FOR	**AGAINST**
	Rob Morgan, *Consultant Interventional Radiologist, St George's Vascular Institute, London*	***Narayanan Thulasidasan,*** *Consultant Interventional Radiologist, Guy's & St Thomas' Hospital, London*

9.50 – 10.00	**GOLD SPONSOR PRESENTATION**	**PENUMBRA**
	Chairs: Rachel Bell & Emma Wilton	
	Computer Assisted Vacuum Thrombectomy in Arterial Thrombus Management: Patient Selection and Technology Application	
	Paul Moxey, *Consultant Vascular Surgeon, St George's Vascular Institute, London*	

Friday 27th June

10.00 – 10.30	TRAINING SYMPOSIUM (7 + 7 + 7 minutes)
	WHAT MAKES A VASCULAR SPECIALIST?
	Chairs: Rob Morgan, Paul Moxey & Emma Wilton
	Should there only be one training pathway for specialists who treat vascular disease?
	Andrew Holden, *Director of Interventional Radiology, Auckland Regional Public Health Service, New Zealand*
	Would vascular surgery be better aligned with cardiothoracic surgery than general surgery?
	Anahita Dua, *Vascular Surgeon, Massachusetts General Hospital and Associate Professor of Surgery, Harvard Medical School, Boston, USA*
	What does the perfect vascular training programme of the future look like in the UK?
	Keith Jones, *Consultant Vascular Surgeon, Frimley Health Foundation Trust*

10.30 – 11.30	CASE DISCUSSIONS
	Chair: Bijan Modarai
	Barend Mees, *Professor of Vascular Surgery, Maastricht Heart+Vascular Center, Netherlands*
	Peter Schneider, *Professor of Surgery, Division of Vascular & Endovascular Surgery, University of California, San Francisco, USA*
	Martin Claridge, *Consultant Vascular Surgeon, University Hospitals Birmingham NHS Foundation Trust*

11.30 – 12.10	BRUNCH

12.10 – 12.20	GOLD SPONSOR PRESENTATION	BENTLEY
	Chairs: Katharine Lewis & Sandip Nandhra	Bentley
	BeFlared: First Impressions UK	
	Bijan Modarai, *Consultant Vascular Surgeon, King's College London*	

12.20 – 12.40	GUEST LECTURE (15 + 5 minutes)
	Chairs: Katharine Lewis & Sandip Nandhra
	What is an acceptable landing zone for aortic dissection - how do you make one in the acute situation?
	Tara Mastracci, *Complex Aortic Surgeon, Barts Heart Hospital, London*

Friday 27th June

12.40 – 12.50	GOLD SPONSOR PRESENTATION	PHILIPS
	Chairs: Peter Schneider, James McCaslin & Nikesh Dattani	PHILIPS
	From Angio to IVUS: Evolving my PAD Treatment Algorithm	
	Katharine Lewis, *Consultant Interventional Radiologist, Somerset NHS Foundation Trust*	

12.50 – 13.50	PERIPHERAL PRIZE ABSTRACT SESSION (7 + 3 minutes)
	Chairs: Peter Schneider, James McCaslin & Nikesh Dattani
12.50 – 13.00	Feasibility phase of Platelet Research in Optimising Response in Treatment for Angioplasty (PRiORiTY) study
	Meiling MacDonald-Nethercott*, Chisom Aghaji, Harjeet Rayt, Thanos Saratzis, Robert Sayers, Badri Vijaynagar* Glenfield Hospital, University Hospitals of Leicester, Leicester
13.00 – 13.10	Real-world experience of Indigo aspiration thrombectomy for acute limb ischaemia
	Madhurima Chetan[1]*, Melosa Millar Mills*[1]*, Rezhwan Ahmed*[1]*, Aaron Joseph*[1]*, Dominic Howard*[1,2]*, Zahi Qamhawi*[1]*, Daniel Kearns*[1]*, Rafiuddin Patel*[1]*, Andrew Wigham*[1] [1]Oxford University Hospitals, Oxford [2]University of Oxford, Oxford
13.10 – 13.20	Endovascular vs. open surgical repair of popliteal artery aneurysms A meta-analysis
	Georgios Koufopoulos[1]*, Konstantinos Antonopoulos*[2] [1]Liverpool Vascular and Endovascular Service (LiVES), Liverpool [2]Department of Vascular Surgery, Attikon University Hospital, Athens, Greece
13.20 – 13.30	Endovascular treatment with intravascular lithotripsy for common femoral artery disease: A safe and feasible alternative to open surgery
	Sarah Jane Messeder[1,2]*, Athanasios Saratzis*[1,2]*, Constantinos Poyiatzis*[1,2]*, Charles Mensah*[2]*, Badri Vijaynagar*[2] [1]Department of Cardiovascular Science, University of Leicester, Leicester [2]Leicester Vascular Institute, Leicester

Friday 27th June

13.30 – 13.40	**The fate of the contralateral limb after major lower limb amputation for peripheral arterial disease or diabetes mellitus**
	Robert Leatherby[1,2], *Bilal Azhar*[1,2], *Peter Holt*[1,2], *Iain Roy*[1,2] [1]St George's Vascular Institute, St George's University Hospital NHS Foundation Trust, London [2]Cardiovascular & Genetics Institute, St George's University of London, London
13.40 – 13.50	**Clinical significance of high on-treatment platelet reactivity in patients taking P2Y12 inhibitors following lower limb revascularisation for peripheral artery disease: A systematic review and meta-analysis**
	Akam Shwan[1,2,3], *Tolaz Sultan*[4], *Harry Summers*[5], *Rameez Qaisar*[2], *Coral Pepper*[6], *Sarah Jane Messeder*[1,2,7], *Harjeet Rayt*[1,2], *Athanasios Saratzis*[1,2,7], *Robert D Sayers*[1,2,7], *Badri Vijaynagar*[1] [1]Department of Cardiovascular Sciences, University of Leicester, Leicester [2]Leicester Vascular Institute, University Hospitals of Leicester NHS Trust, Leicester [3]Leicester Biomedical Research Centre, Leicester [4]Faculty of Medicine and Health Sciences, University of Buckingham, Buckingham [5]NIHR Leicester Vascular Institute, University Hospitals of Leicester NHS Trust, Leicester [6]Clinical Librarian Service, University Hospitals of Leicester NHS Trust, Leicester [7]NIHR Leicester Biomedical Research Centre, Leicester

13.50 – 14.10	**CHEE SOONG MEMORIAL LECTURE**
	Introduced by Bijan Modarai
	Vascular Surgery - Science or Art?
	Nick Cheshire, *Professor of Vascular Surgery and Head of Vascular Surgery, Royal Brompton & Harefield Hospitals, London*

14.10	**PRESENTATION OF PRIZES AND CLOSE**

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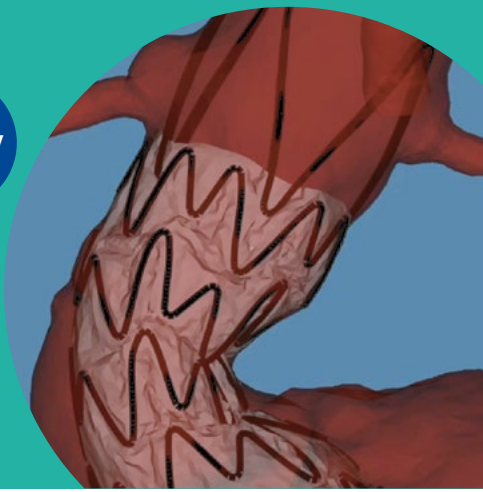

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ABSTRACTS

Reproductive factors and the risk of incident peripheral arterial disease hospitalisation or death: A cohort study of UK Biobank participants

Anna Louise Pouncey[1], *Mark Woodward*[2], *Katie Harris*[2], *Rebecca Kelly*[2]
[1]City St George's University of London, London
[2]The George Institute for Global Health, Sydney, Australia

Background
This study examined reproductive factors and exogenous hormone use in relation to the risk of incident peripheral arterial disease (PAD) in women.

Method
UK Biobank cohort study. Cox proportional hazard regressions used to estimate adjusted hazard ratios (adjHRs) for reproductive factors with incident PAD, adjusted for age, socioeconomic status, ethnicity, smoking status, systolic blood pressure, BMI, diabetes mellitus, cholesterol, antihypertensives, and lipid-lowering drugs.

Results
Incident PAD recorded among 2,942/272,557 women and 5,432/227,403 men over 13.2 years. Compared to menarche at 13 years, multiple-adjusted HRs for age <12 and age >14 years demonstrated increased PAD risk (adj HR 1.43 95% CI[1.32, 1.55], p<.001, 1.36 [1.23, 1.49], p<.001, respectively). An inverse relationship with age at first birth was observed, with cumulative risk reduction per additional year (adjHR 0.95 [0.94, 0.96], p<.001). Cumulative increase in PAD risk was observed per miscarriage (adjHR 1.06 [1.01, 1.11] p=.027), per stillbirth (adjHR 1.18 [1.03, 1.36] p=.014) and per abortion (adjHR 1.09 [1.01, 1.18], p=.028). Longer reproductive life-span and older age at menopause had inverse associations with PAD, while hysterectomy or oophorectomy was associated with increased risk (adjHR 1.24 [1.13, 1.35], p<.001, 1.24 [1.10, 1.39], p<.001, respectively). Oral contraceptives were associated with reduced PAD risk (adjHR 0.85 [0.78, 0.93], p<.001). Associations between parity and PAD were U-shaped. Multiple-adjusted HR for those with ≥4 children was 1.13 ([1.00, 1.25], p=.041) women; 1.25 ([1.16, 1.34], p<.001 men).

Conclusion
Reproductive factors are associated with increased risk of PAD and should be considered in future risk stratification.

Operative exposure for senior vascular trainees in peripheral vascular disease and abdominal aortic aneurysm over the last 10 years

Steve Tang[1], *Kaji Sritharan*[2]
[1]Aintree University Hospital, Liverpool
[2]York Hospital, York

Background
Over time, with the expansion in endovascular technologies, better medical therapy and reduced working hours, the vascular surgery (VS) training landscape has changed. This study explores how UK VS training has changed in the last 10 years.

Method
Cross-sectional analysis of eLogbook data from ST8 VS trainees in 2013-14 (group 1), 2017-18 (group 2) and 2023-24 (group 3). Trainee involvement within PAD and AAA were reviewed.

Results
Over time, a decline in total cases logged is seen. Between group 1 and 2, there was a 13.3% reduction; and a further 16.9% reduction between group 2 and 3. With 263 cases on average logged in group 1; and 153 in group 3. Relating to PAD, 33, 34 and 25 cases on average were performed in groups 1, 2 and 3 respectively; with a trend towards a greater proportion of endovascular cases over time; 7, 16 and 13 cases on average in groups 1, 2 and 3 respectively. The total number of AAA repairs has decreased over time (615, 531 and 291). Trainees were involved in 18, 15 and 7 cases on average in groups 1, 2 and 3 respectively. Involvement in Open AAA repair was poor; with 8, 4 and <1 cases performed on average in groups 1, 2 and 3 respectively.

Conclusion
VS trainees are exposed to fewer operative opportunities compared to 10 years ago. Further work is required to understand surgical exposure at different training grades, aiming to identify and address deficits within modern day VS training.

Spatiotemporal Trends in Peripheral Artery Disease Prevalence in England – Primary Care Registry Data Analysis

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Background
Understanding peripheral arterial disease (PAD) trends, and geographical hotspots can allow insight into disparities in care and demand between regions. The majority of GP practices in England maintain a peripheral arterial disease (PAD) patient registry, as part of Quality and Outcomes Framework (QOF). We used these practice level data to characterise spatiotemporal patterns of PAD prevalence, and to examine association with social-deprivation, age, sex and co-morbidities over time.

Method
PAD prevalence and co-variate QOF data were combined with ONS deprivation and demographic data from 2013 to 2024, and summarised across Lower Layer Super Output Areas. Correlation matrices between prevalence and co-variates were constructed using pairwise Pearson's correlation coefficient, adjusting for practice size. Prevalence hotspots were determined using Geits-Ord analysis.

Results
Despite an increase in absolute numbers of patients recorded as having PAD (312,257 in 2013 to 353,814 in 2024), overall prevalence decreased from 0.65% to 0.58%. Age (r=0.477) social-deprivation (r=0.451), smoking status (r=0.304), hypertension (r=0.596), diabetes (r=0.275), and coronary heart disease (r=0.801) were positively correlated with PAD prevalence at practice level. Significant increases in PAD were identified in Yorkshire and Humber (z-score 3.11, p=0.002) Noth-West England (z-score 2.55, p=0.01), and North-East England (z-score 2.22, p = 0.02).

Conclusion
PAD prevalence as recorded on primary care records is decreasing nationally, despite increasing population age. Further validation of this data against secondary care outcomes is needed to assess best medical therapy adherence and outcomes, and increase collaboration between primary and secondary care.

Stent configuration for endovascular iliocaval reconstruction - a systematic review

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Background
Endovascular Iliocaval reconstruction is a potential option for managing chronic venous occlusive disease. A variety of stent configurations are described in the literature. This systematic review explores the evidence behind these options and whether there is a difference in patency rates based on the configuration used.

Method
A systematic review (Cochrane, Medline, PubMEd, Embase) was performed for studies reporting outcomes for endovascular iliocaval reconstruction. The configurations of interest included: Inverted Y, double barrelled stenting, the 3 stent technique, and the skip stent technique. Weighted means are reported for primary and secondary patency rates for the different configurations.

Results
18549 studies were identified (11092 after manual and automatic deduplication). 11077 ineligible studies were excluded. Of the 15 included studies, there were no randomised control trials available for meta-analysis. The limited patency data is as follows (primary, secondary): Inverted Y (3 studies) – 42.9%, 90.1%; double barrel (4 studies) – 64.2%, 93.2%; skip stenting (1 study) – 74.0%, 97.0%; three stent (9 studies) – 77.0%, 87.6%. There was large variation in follow-up time (3 months – 36 months). No studies reported QoL data for comparison and there was heterogeneity in reported data. Minimal studies reported symptomatic outcomes.

Conclusion
There is limited evidence for a single technique being superior but configurations with 3-stents may offer greater primary patency. Clinicians should utilise their preferred method with appropriate governance and follow-up. Quality of life data is lacking as is consensus of definitions in reported data.

Femoropopliteal angioplasty for long lesions: Procedural success, patency, and reintervention in a high-risk cohort

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Background
Femoropopliteal (fempop) angioplasty has become a key intervention for patients with peripheral arterial disease, yet the impact of lesion length, device selection, and comorbidities on outcomes remains under scrutiny. This study aimed to assess clinical success rates, reintervention frequency, and patency among a cohort of patients undergoing fempop angioplasty with various balloon and stent technologies.

Method
We retrospectively reviewed 122 consecutive patients treated for fempop lesions. Demographic data, comorbidities, lesion characteristics, intervention type (plain balloon, drug-coated balloon, bare-metal stent, or drug-eluting stent), and patency outcomes were collected. Primary endpoints included technical success and primary patency; secondary endpoints encompassed reinterventions, complications, and limb salvage.

Results
Among the 122 patients (mean age 69.6 years; 82 male), all presented with long fempop lesions (mean length 21.49 cm). Primary interventions were performed in 79.51% of cases, while 20.49% underwent secondary procedures. Technical success exceeded 80% overall, with an average patency period of 15.4 months. Drug-eluting stents and drug-coated balloons were frequently employed, especially in patients with extensive disease. Comorbidities such as diabetes, hypertension, and ischemic heart disease were prevalent, reflecting a high-risk population.

Conclusion
Fempop angioplasty using contemporary devices demonstrates encouraging procedural success and mid-term patency, even for long lesions in a comorbid population. Nonetheless, reinterventions remain necessary in a substantial minority of cases. These findings support the growing role of endovascular approaches in managing femoropopliteal disease, while underscoring the need for vigilant follow-up and timely secondary interventions.

The relevance, specificity, and usability of the current Patient-reported Outcome Measure for Chronic Limb Threatening Ischaemia: A systematic review of reported PROMs

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Background
Chronic limb-threatening ischemia (CLTI) causes significant morbidity with profound negative effects on health-related quality of life (QoL). The use of Patient-reported Outcome Measures (PROMs) are increasing in clinical practice and research. The aim of this study was to identify all reported PROMs in research of CLTI and assess the usefulness of these measures in CLTI patients.

Method
This is a sub-study of a systematic review for development of Core Outcome Set in CLTI (PROSPERO: CRD42023412204). Studies recruiting CLTI patients and reported at least one PROM were included from the original search of Medline, Embase, CINAHL, and Cochrane Central from inception until March 2024. All PROMs, either validated or not, single outcome measure or QoL tools, were included.

Results
A total of 19,760 titles screened, 4,516 articles screened, and 475 studies included. Across the studies, 61 unique PROMs were identified. There were 13 health-related quality of life and 11 disease-specific tools. EQ-5D was the most frequently reported generic QoL and Vascu-QoL was the most used disease-specific QoL tool. Non-validated PROMs were used in 141(30%) of the studies. There were marked heterogeneity of the reported PROMs. No any specific PROM addresses all the aspects of the experience of patients with CLTI.

Conclusion
PROMs used to describe the experience of patients with CLTI are heterogeneous and lack specific applicability. Despite the multiplicity of tools, no single PROM encompasses all the components necessary to describe the experiences of patients with CLTI. Development of disease specific, concise PROMs for CLTI is essential.

The impact of aneurysm extent on mid-term survival after elective fenestrated-branch endovascular aortic repair

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Background
To compare the early and mid-term outcomes of elective fenestrated and branch endovascular aortic repair (FBEVAR) according to aneurysm extent.

Method
Single-centre retrospective study of consecutive patients who underwent elective FBEVAR for primary aneurysms between December 2007 and December 2024. Patients who had prior AAA repair were excluded. Primary endpoint was Kaplan-Meier estimates of medium-term survival. Data are presented as median (IQR). A P-value of <0.05 was considered significant.

Results
797 patients [657 men; median age, 74 (69-79) years] were treated for primary juxtarenal (JR) AAA (n=456), extent IV (n=163) or extent I-III thoracoabdominal aortic aneurysms (TAAA) (n=178). There was no difference in 30-day mortality (2.4%; JRAAA 2.6%, extent IV 2.5%, extent I-III 1.7%). Median follow-up was 46 months (19-80). Estimated 5-year survival (±SE) was 66%±2%: JRAAA 69%±3%, extent IV 56%±5%, extent I-III 67%±4% (p=.2).

Conclusion
In an experienced centre, aneurysm extent does not have a significant impact on early or mid-term survival after elective FBEVAR. Patients with extent IV TAAA appeared to have worse mid-term survival but this did not reach statistical significance.

Effectiveness of the MANTA Vascular Closure Device for repair of ruptured abdominal aortic aneurysm by Endovascular Aneurysm Repair (RAAA-EVAR) in rAAA: A pilot study

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Background
EVAR has quickly become the mainstay in managing RAAA if anatomically feasible. Femoral cutdowns were used due to the large profile devices. However, pEVAR is associated with shorter haemostasis and procedure completion times with less blood loss and groin pain. The MANTA is the first dedicated collagen plug-based vascular closure device used for large-bore arterial puncture. It is mainly used in cardiac procedures, but is finding increasing use in endovascular surgery, particularly in EVAR. It is deployed in a shorter time and have lower failure rate than proglide. We carried out a study looking at the effectiveness of the MANTA device at RAAA-EVAR.

Method
Nine patients (Male n=7, female n=2 mean age 79 ± 9 years) underwent RAAA-EVAR, where the Manta was used as VCD. The median BMI was 29.5kg/m2. Overall, 16 large bore punctures were closed using the MANTA (Right n=9, Left n=7). Of these, 14 were virgin groins, and 2 were redo groins. The median arterial depth was 3.5cm.

Results
Our results showed that technical success was 93.75% (Haemostasis n= 14, safeguard dressing n=1, cutdown n=1). The median length of stay was 16 days. There were two mortalities in 30 days. None of the patients had PSA or stenosis from the closure site.

Conclusion
The MANTA can be used safely and effectively in RAAA. Our study shows that it has a high success rate with low complications and has clear advantages in minimal set-up time as a single-device-per-groin, with scope of usage even in redo groins.

Central Blood Pressure and Variability Evaluation (CAVE-ON): Assessing the impact of blood pressure and blood pressure variability on AAA growth rates

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Background
Blood pressure (BP) and BP variability (BPV) are closely linked with cardiovascular health; hypertension is linked with increased risk of AAA rupture. We investigated the relationship between peripheral and central BP, BPV and AAA growth and time taken to reach repair threshold.

Method
A multicentre, prospective study recruited patients ≥55 years with AAA to undergo peripheral and central BP and AAA measurement every four months from June 2022-2024. Visit-to-visit BPV was estimated by standard deviation (SD), coefficient of variation (CoV) and variation independent of mean (VIM); AAA was measured using ultrasound, by the same assessor. Growth was estimated using linear mixed effects.

Results
137 patients (110 male) were followed over a mean of 15±5.4 months. Peripheral and central BP and BPV were not related to AAA growth, nor did they affect the time it took to reach repair threshold. The growth rate was 1.34mm/year. A 1cm greater baseline diameter increased the growth rate by 1.12mm/year. Current smoking was associated with faster growth (+0.93mm/year, CI=0.3-1.6, p=0.005); ischaemic heart disease (IHD) was associated with slower growth (-0.56mm/year, CI=-1.1--0.01, p=0.047), independently of AAA diameter and smoking. More guideline compliant cardiovascular medication prescription including two-fold use of antihypertensives were noted in the IHD group; antihypertensive adherence was similar in both groups.

Conclusion
There was no relationship between peripheral and central BP or BPV and AAA growth. Reduced growth in the presence of IHD seems to be attributable to better prescription of cardiovascular medications, suggesting best medical therapy may have an important role in reducing AAA growth.

Fenestrated-branch endovascular aortic repair in octogenarians

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Background

According to the NVR, endovascular repair accounts for over 80% of elective abdominal aortic aneurysm (AAA) repairs in octogenarians. This study compares the outcome of elective fenestrated and branch endovascular aortic repair (FBEVAR) in octogenarians and non-octogenarians.

Method
Single-centre retrospective study of consecutive patients who underwent elective FBEVAR between December 2007 and December 2024. Primary endpoint was Kaplan-Meier estimates of medium-term survival. Data are presented as median (IQR). A P-value of <0.05 was considered significant.

Results
A total of 701 non-octogenarians [581 men; median age, 72 (68-76) years] and 216 (24%) octogenarians [180 men; median age 82 (81-84) years] underwent repair. Octogenarians were more likely to have prior AAA repair (19% vs. non-octogenarians 11%; p<.001) and require juxtarenal AAA repair (69% vs. non-octogenarians 53%; p<.001). The 30-day mortality was 2.1% (n=19; octogenarians 3.2% vs. 1.7%, p=.27). Median follow-up was 46 months (19-80). Estimated 5-year survival (±SE) was 52%±4% in octogenarians compared with 68%±2% in non-octogenarians (p<.001).

Conclusion
While early mortality was similar, mid-term survival was inferior which may be a consequence of the fact that octogenarians were a decade older than their younger counterparts and more likely to have had prior AAA repair.

The impact of introducing a surgeon-led emergency EVAR service on outcomes and cost efficiency in ruptured aortic aneurysm management: A UK single-centre experience

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Background
Ruptured abdominal aortic aneurysm (rAAA) is a life-threatening emergency with high mortality. Open surgical repair (OSR) has been the standard treatment, endovascular aneurysm repair (EVAR) offers a potentially superior alternative. This study assesses the patient outcomes and cost-efficiency of an emergency EVAR service at a UK tertiary centre.

Method
A retrospective cohort study was conducted, including all patients presenting with rAAA from January 2019 to December 2023. Patients were split into two periods: Period A (2019-2020), when only OSR was available, and Period B (2021-2023), after the introduction of emergency EVAR. Patients were categorized into OSR and EVAR groups, and outcomes such as 30-day mortality, one-year mortality, reintervention rates, length of stay, and cost-effectiveness (using Quality-Adjusted Life Years [QALYs] and Incremental Cost-Effectiveness Ratio [ICER]) were evaluated.

Results
Seventy-one rAAA patients were identified, with 58 undergoing surgery. In Period A, all patients received OSR, while 36.8% of patients in Period B underwent EVAR. The 30-day mortality rate was significantly lower in the EVAR group (7%) compared to OSR (50% in Period B, 63.3% in Period A, $p = 0.011$). One-year mortality was similar between groups, though OSR patients in Period B had increased late mortality ($p = 0.00075$). Reintervention rates were higher for OSR (25% vs. 0% for EVAR, $p = 0.044$). EVAR also showed superior cost-effectiveness, with an ICER of £202,526 per QALY.

Conclusion
The introduction of emergency EVAR service significantly improved short-term survival and reduced reintervention rates. EVAR showed superior cost-effectiveness, suggesting it should be preferred when possible.

Bridging the Gap: A propensity-matched analysis of sex differences in complex EVAR

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Background
Recent evidence indicates that women undergoing aneurysm repair experience inferior outcomes relative to their male counterparts, irrespective of treatment modality. Moreover, female sex has been identified as an independent predictor of both one-year and five-year mortality following aneurysm repair.

Method
We performed an analysis of patients undergoing complex abdominal and thoracoabdominal aneurysm repair between 2010 and 2024. To adjust for major confounding factors, we applied propensity score matching (1:1 nearest neighbour method) for imbalanced covariates, including aneurysm extent, prior repair, referral source, modality, and number of target vessels.

Results
In total, 917 patients were identified (156 women, 17\%), with a median age of 75 years (IQR 70-79). Of these, 781 (85.2\%) underwent fenestrated EVAR (FEVAR) and 136 (14.8\%) underwent branched EVAR (BEVAR), for juxtarenal aneurysms (519, 56.6\%), Extent IV (190, 20.7\%), and Extent I-III aneurysms (208, 22.7\%). Women were more likely than men to be referred from other centres (70.5\% vs 54.1\%, p<0.001) and to present with thoracoabdominal aneurysms (62.8\% vs 39.4\%; OR=0.39, 95\% CI 0.27-0.55, p<0.001). In the propensity score-matched cohort, 30-day survival did not differ significantly between men and women (2.1\% vs. 1.3\% mortality, p = 1.000), and similar results were observed for survival (median follow-up 44.8 months [IQR 16.8;79.6]; HR(male)=0.88, 95\%CI 0.64-1.20, p=0.425).

Conclusion
Our findings suggest that perioperative mortality and overall survival following complex EVAR procedures are comparable between sexes. Detailed population-based analyses of the incidence of complex aneurysms are needed to elucidate potential sex discrepancies in this cohort.

Long-term outcomes of Fenestrated Endovascular Repair (FEVAR): A GLOBALSTAR registry study

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Background
GLOBALSTAR contains 1401 FEVAR cases (UK, 2003-2022). The aims of this study are to report long-term outcomes for survival and freedom from re-intervention for FEVAR.

Method
Inclusion criteria: all aneurysm morphologies, cmFEVAR. Dissections excluded. Time-to-event analyses were conducted for survival and freedom from re-intervention. A 10% threshold was applied to determine data maturity.

Results
N= 1401 (14 centres). Demographics: median age was 75 years [69-80,IQR], 87.9% male, highly co-morbid, 44.8% ischaemic heart disease. Survival data maturity reached 10 years and estimated survival [n=1401] at 3, 5 and 10 years were 79.0% [76.9- 81.2%, 95%CI], 63.4% [60.9- 66.1%] and 31.2% [28.2- 34.5%]. Median survival was 6.8 years [6.5-7.2, 95%CI]. Re-intervention data maturity reached 7 years and estimated freedom from re-intervention [n=1395] at 3, 5 and 7 years were 75.3% [72.7-77.9%], 68.5% [65.5-71.6%] and 64.4% [61.1-68.0%]. Mean time to re-intervention was 3.2 years. Females have significantly worse early survival (78.9%, [73.0-85.4%]) than males (86.0%, [84.1-88.0%]) up to 2 years (log-rank, $p<0.01$). Beyond 2 years, differences in survival do not reach significance. Octogenarians have equivalent survival (89.5%, [86.3-92.7%]) to non-octogenarians (91.6%, [90.0-93.4%]) up to 1 year (log-rank, $p=0.19$). Beyond 1 year, survival differences reach statistical significance, though octogenarians' median survival is 5.3 years [4.9-6.1]. There were 27 secondary ruptures over follow-up (1.9%, n=1401), with late ruptures (>8 years) accounting for 3.9% of late deaths (n=129).

Conclusion
FEVAR carries risk, especially of re-intervention, but provided effective case selection, may offer an acceptable treatment option for complex AAA patients, including females and octogenarians.

Comparison of outcomes of Physician Modified Grafts and Custom Made Devices: A matter of aesthetics?

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Background
Physician modified endografts (PMEGs) are increasingly used in the treatment of complex abdominal and thoracoabdominal aortic aneurysms, yet robust comparative data with Custom Made Devices (CMDs) remain scarce. This study compares outcomes between PMEG and CMD repairs.

Method
We analysed patients undergoing elective complex juxtarenal and thoracoabdominal aneurysm repair using CMD (fenestrated EVAR) and urgent PMEG (ruptures excluded) between 2010 and 2024. Propensity score matching (1:1 nearest neighbour) was applied to adjust for confounders including aneurysm extent, prior repair, referral source, proximal landing zone, and number of target vessels.

Results
A total of 898 patients (753 men, 83.9%) with a median age of 75 years (IQR 70–79) were identified. Aneurysm types comprised juxtarenal (554; 61.7%), Extent IV (217; 24.2%), and Extent I–III (127; 14.1%). Of these, 117 (13.0%) underwent PMEG repair and 781 (87.0%) underwent CMD repair. PMEG patients were more likely to be referred from other centres (79.5% vs 51.7%, $p<0.001$) and to present with thoracoabdominal aneurysms (67.5% vs 32.8%; OR=0.25, 95% CI 0.16–0.37, $p<0.001$). In the matched cohort, 30-day mortality was higher in the PMEG group (8.5% vs 0.9%, $p=0.013$), although long-term survival was comparable (median follow-up 20.2 months; HR=1.20, 95% CI 0.74–1.94, $p=0.456$).

Conclusion
In selected patients, PMEG represents a viable option for urgent repair with acceptable long-term outcomes. Multi-centre studies are warranted to further substantiate these findings.

The detrimental effects of Endovascular Aneursym Repair on aortic compliance

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Background
Aortic compliance cushions left ventricular ejection, converting pulsatile cardiac function into steady peripheral arterial flow. When the aortic wall stiffens, haemodynamics are impaired, provoking damage in multiple organs. Endovascular repair of aortic aneurysms (EVAR) may affect aortic compliance, with significant subsequent cardiovascular and other consequences. We sought to explore the exact effects of EVAR on aortic stiffness.

Method
We conducted a non-randomised, prospective study with 140 consecutive patients undergoing elective EVAR or (Open Surgical Repair) OSR for AAA. Aortic stiffness was measured pre-operatively (T0), within one week of the operation (T1), 4-6 weeks (T2), and at one year (T3), using a validated non-invasive device (Vicorder) to measure carotid-femoral (cfPWV) and brachial-femoral Pulse Wave Velocity (bfPWV), as accurate estimates of aortic stiffness.

Results
Of 140 patients, 130 (93%) underwent EVAR. CfPWV was significantly correlated with bfPWV (ρ=0.467, p<0.001). EVAR resulted in a significant increase in cfPWV (T0: 9.9±1.3, T1: 11±1.6, T3: 12.2±3.8, and T4: 12.5±2.6 m/s; p<0.001 for comparison with T0) and bfPWV (T0: 34.6±12, T2: 40.4±12.4, T3: 44.2±14.6, and T4: 44.3±12.6; p=0.002 for comparison of T1 to with T0, p<0.001 for comparison of T2 and T3 with T0). There were no significant differences across all time-points post-OSR.

Conclusion
In this study, the first to use both CfPWV and bfPWV in this context, EVAR, but not OSR, significantly reduced aortic compliance not only immediately post-intervention, but steadily over one year. The clinical significance of enhanced stiffness post-EVAR remains to be explored.

Unsupervised machine learning for identifying thrombogenic morphological phenotypes in abdominal aortic aneurysms using fully automated volume-segmented imaging

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Background
Thrombo- and microembolic complications following abdominal aortic aneurysm repair are hypothesised to be associated with wall thrombus burden, which is higher in women. Fully automatic volume segmentation (FAVS) of imaging enables extraction of morphological features from which thrombogenic phenotypes may be identified.

Method
This was a multi-centre retrospective cohort study using FAVS to examine pre-operative imaging for elective AAA repairs (2013-2023). Radiological data were matched with National Vascular Registry thromboembolic outcomes data (cerebral, bowel, renal or limb ischaemia). Principal component analysis was used for dimensionality reduction, followed by unsupervised machine learning with k-nearest neighbours (kNN) clustering based on radiological parameters. The optimal number of clusters was determined using silhouette scores. Clusters were compared using multivariate logistic regression, adjusting for aortic size index, cardiovascular risk parameters, and repair type.

Results
Of 1655 patients, 1455 had sufficient quality imaging for FAVS (145 women, 1310 men). kNN clustering identified two morphological subtypes (n=878 and n=577), with notable sex imbalance (13.8% vs. 4.1% women, p<0.001). The clusters differed in wall thrombus burden across 16 of 24 parameters (p<0.01). Thromboembolic outcomes were few in both clusters (2.6% vs 1.7%, p=0.35). Adjusted multivariate regression suggested a trend towards higher thromboembolic events in high thrombus burden cluster (OR 1.56 95%CIs 0.71-3.43, p=0.23).

Conclusion
Unsupervised machine learning can identify distinct morphological phenotypes with significant thrombus burden difference. These phenotypes exhibit sex imbalance and may correlate with thromboembolic outcomes. Further research is needed to explore mechanisms underlying the increased thromboembolic event rate in women, which is likely multifactorial.

Fenestrated-branch endovascular aortic repair after prior endovascular or open AAA repair is associated with inferior mid-term survival compared to primary repair

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Background
To compare the outcome of elective fenestrated and branch endovascular aortic repair (FBEVAR) in patients with and without prior abdominal aortic aneurysm (AAA) repair.

Method
Single-centre retrospective study of consecutive patients who underwent elective FBEVAR between December 2007 and December 2024. Primary endpoint was Kaplan-Meier estimates of medium-term survival. Data are presented as median (IQR). A P-value of <0.05 was considered significant.

Results
Of 917 patients [761 men; median age, 75 (70-79) years] treated for juxtarenal (JR) AAA (n=519) or thoracoabdominal aortic aneurysms (TAAA) (n=398), 120 (12.4%) had prior AAA repair. Patients with prior EVAR (n=72) were significantly older [median age 77 (71-82) yrs vs. prior OSR/primary repair 74 (69-79); p=.008] and more likely to have JRAAA repair (81%), while those with prior OSR (n=48) were more likely to have extent I-III TAAA repair (52%) (p<.001). 30-day mortality was 2.1% (n=19; none in the prior repair cohort; NSD). Median follow-up was 46 months (19-80). Estimated 5-year survival (±SE) was significantly worse in patients who had prior EVAR (53%±7%) and prior OSR (56%±8%) compared with primary repair (66%±2%; p=.002).

Conclusion
FBEVAR after prior AAA repair is as safe as primary repair, but mid-term survival is inferior. This may be a consequence of older patients being treated after prior EVAR, and more extensive disease requiring repair after prior OSR.

Novel protocol for comprehensive assessment of Type B Aortic Dissection morphology: A validated and reproducible protocol for clinical and research applications

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Background
This study aims to demonstrate the reproducibility of a novel imaging protocol for the analysis of aortic morphology of Type B Aortic Dissection (TBAD) for clinical and research purposes.

Method
Protocol was designed based on systematic review and expert opinion. A total of 56 morphological parameters were assessed across six morphological domains. To validate the protocol, 4 observers measured these variables on 20 computed tomographic (CT) angiograms on a total of 10 patients using 3-dimensional imaging reconstruction software. One observer performed repeated measurements. The intra- and inter-observer variabilities were calculated for all continuous variables. Cohen's kappa was used to assess agreement between observers for categorical variables. Measurement time for all 56 features was recorded.

Results
Aortic arch; false lumen morphology; endovascular intervention and aortic remodelling showed strong levels of agreement. Aortic measurements showed satisfactory intra- and interobserver variability with maximum repeatability coefficient (RC) for interobserver variability of 5.02 mm and intraobserver variability of 2.42 mm across all measurements. Dissection morphology demonstrated least favourable levels of agreement. Entry tear morphology including primary entry tear (PET) size and distance from left subclavian artery (LSCA) showed small mean differences but was associated with high RCs. The measurement protocol was completed in a median time of 28 (22-35) minutes.

Conclusion
Accurate three-dimensional analysis of TBAD morphology can be reliably performed within a reasonable timeframe. Measurements based on consistent anatomical landmarks demonstrated the highest reproducibility. It is suggested that this protocol is adopted for clinical studies and trials on acute TBAD.

Implementation of Machine Learning and Natural Language Processing in clinical practice facilitates identification of patients with Acute Aortic Syndrome

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Background
The efficiency of referral of AAS to specialist care teams and to research studies is poor. The machine learning (ML) using natural language processing (NLP) can enhance and automate this process. Our earlier work demonstrated that NLP could enhance and automate identification of cases by analysing radiology reports, as opposed to relying solely on Electronic Health Records (EHR) or HES data. This study aimed to perform external validation of developed ML algorithm and to compare the efficiency of identifying cases of Acute Aortic Syndromes (AAS) through NLP-aided screening of radiology reports with that of EHR/HES data using ICD-10 codes.

Method
External validation of the algorithm was performed using radiology reports issued between 2011 and 2021 in the neighbouring Trust. Simultaneously, local EHR/HES was searched for AAS cases using ICD-10 codes.

Results
External validation of the developed ML algorithm performed on 40,030 radiology reports showed good model performance with AUC of 0.85. The EHR/HES screen identified patients with corresponding aortic pathology codes were cross-validated against NLP-identified cases. The cross-check revealed that 1 in 3 cases (28.7%) was not coded in EHR/HES. Patients without an ICD-10 code in EHR/HES were twice as likely to die during follow-up compared to those with a recorded ICD-10 code (HR 2.07, 95% CI 1.06-4.04, p=0.032).

Conclusion
Good performance of ML model on external validation could facilitate early identification of patients with AAS and improve referral pathway when implemented in the clinical practice.

Systematic review and meta-analysis of matrix metalloproteinases in peripheral arterial disease

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Background
Several studies have investigated the role of matrix metalloproteinases (MMPs) and their tissue inhibitors (TIMPs) in peripheral arterial disease (PAD). The aim of this study was to undertake a meta-analysis to determine which MMPs and TIMPs are key in PAD and the effect of endovascular intervention.

Method
Literature review identified 16 studies suitable for inclusion. Meta-analysis was conducted where possible and systematic review undertaken when not. Meta-analysis was carried out using Review Manager 5.4.1 using standardised mean difference and random effects.

Results
Meta-analysis identified a significant increase in both MMP9 and MMP2 in PAD patients (MMP9 SMD 0.80 (0.37,1.23 p=0.0003), MMP2 SMD 2.39 (0.88,3.91 p=0.002)). Meta-analysis was not possible for MMP-1,3,7,10,12 or 13 or TIMP-1 or 2 however systematic review showed significant increases in all MMPs and TIMP-1 in PAD patients compared to controls. TIMP-2 had no significant difference and neither TIMP was significantly dysregulated by endovascular intervention. Systematic review also showed significant dysregulation of MMP-3 and MMP-7 post-endovascular intervention at both 24 hours and 6 months post-operatively. MMP-9 levels were not significantly dysregulated by endovascular intervention at 24 hours (SMD 0.93 (-0.59, 2.46 p=0.23)), however 6 months following intervention there was a significant decrease in MMP9 (SMD -0.45 (-0.65, -0.24 p<0.0001)).

Conclusion
A wide variety of MMPs are dysregulated in patients with PAD however their clinical value is not yet established. Further work correlating the levels of MMP to walking distance and the impact on intervention should be carried out.

Clinical predictors of two-year survival in patients with infrarenal and juxtarenal abdominal aortic aneurysms

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Background
Assessing life expectancy is crucial for shared decision-making and patient selection in infrarenal and juxtarenal aneurysm repair. However, survival predictors derived from population-level data may not apply to local cohorts due to inherent differences. We evaluated factors associated with 2-year survival in patients treated at a tertiary referral centre in the West Midlands.

Method
We analysed patients undergoing elective infrarenal and juxtarenal aneurysm repair using standard EVAR and fenestrated EVAR (FEVAR) between 2007 and 2021. Survival was assessed using Kaplan-Meier analysis with right censoring at 730 days, and stepwise Cox proportional hazards regression evaluated the effect of covariates on survival.

Results
A total of 656 patients (91.0% men) with a median age of 75 years [IQR 70.2-80.0] underwent repair (64.6% EVAR, 35.4% FEVAR) for infrarenal and juxtarenal aneurysms (median diameter 61mm [IQR 58-67]). There as a high prevalence of smoking (72.8%), hypertension (85.8%), ischaemic heart disease (44.2%), hypercholesterolaemia (85.1%) and respiratory disease (27.6%). On multivariable analysis, age (HR 1.04, 95% CI 1.01-1.08, p=0.008), COPD (HR 2.03, 95% CI 1.32-3.11, p=0.001), CVA (HR 1.76, 95% CI 1.05-2.97, p=0.033) and treatment modality (HR 0.63, 95% CI 0.41-0.97, p=0.034) were independently associated with 2-year mortality.

Conclusion
Optimising patient selection is essential to achieve acceptable long-term outcomes in infrarenal and fenestrated aneurysm repair. Survival predictors are likely to vary with local population characteristics and should be carefully considered.

Acute Upper Limb Ischaemia outcomes meta-analysis

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Background
Acute upper limb ischaemia (AULI) is a vascular emergency, potentially requiring urgent intervention to prevent irreversible limb damage. Depending on symptoms patients may be managed medically, surgically or endovascularly. This study aims to report outcomes for each treatment option of AULI to guide clinical decision-making.

Method
EMBASE and Medline were searched for studies reporting outcomes for AULI including technical success, complications, reintervention, stroke, amputation and mortality. Data were analysed using Stata/MP, and probabilities were pooled using a DerSimonian and Laird random effects model with Freeman-Tukey arcsine transformation.

Results
27 studies were identified for inclusion. Conservative management (10 studies, 214 patients), surgical embolectomy (17 studies, 2712 patients) and endovascular intervention (7 studies, 101 patients) identified overall success rates of 75.69% (95%CI: 50.43–94.71), 90.94% (95%CI: 85.27–95.50), and 69.43% (95%CI: 43.30–90.77) respectively. Reintervention rates were significant in both the surgical (16.24% 95%CI: 6.67-28.24) and endovascular groups (49.88% 95%CI: 31.50-68.28). Overall complication rates were high in those undergoing surgical intervention (19%), with significant rates of stroke 9% (95%CI: 3-14), amputation 6% (95%CI: 3-7), and mortality 10% (95%CI: 5-14).

Conclusion
Although surgical management appears to have the highest overall technical success, there remains a significant risk of complications in these patients, and paucity of data on endovascular and conservative management options. In addition, this cohort of patients has a significant risk of mortality. Further prospective and randomised studies are essential in this area.

A comprehensive systematic review of all reported outcome measures in studies of Chronic Limb Threatening Ischaemia: First step toward a core outcome set

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Background
The prevalence of Chronic limb-threatening ischemia (CLTI) is increasing and associated with high morbidity and mortality. Published research in CLTI is evolving but there are currently no outcome reporting standards for research in CLTI. The aims of this review were to describe and categorise all reported outcome measures in published studies of CLTI, and review discrepancies in their definitions.

Method
Medline, Embase, CINAHL, and Cochrane Central databases searched from inception until March 2024 to identify all studies recruiting CLTI patients and reporting at least one outcome measure. Abstract, full text screening, and data extraction were performed by two investigators independently. Outcome measures extracted verbatim. (PROSPERO: CRD42023412204)

Results
A total of 19,760 abstracts and 4,516 full texts were screened: 1,284 studies were included. Across all the studies 678 unique outcomes were reported, 481 (71%) of these were reported once. All-cause mortality, primary patency, and Major Adverse Limb Events (MALE) were the most frequently reported outcome measures. Patient-reported Outcome Measures (PROMs) were reported in fewer than 37% of all the studies. Validated quality of life tools were used in only 26% of the studies. There were wide variations in definitions of commonly used endpoints across the studies.

Conclusion
There is substantial heterogeneity of outcome measures in studies of CLTI. Consensus regarding which outcomes to use, standardised definitions, and optimal methods to measure some of these outcomes are yet to be established. A core outcome set for CLTI is urgently needed to improve the quality and comparability of CLTI studies.

PERIPHERAL PRIZE

Feasibility phase of Platelet Research in Optimising Response in Treatment for Angioplasty (PRiORiTY) Study

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Background
Lower limb revascularisation is a key treatment for critical limb ischaemia (CLI), aiming to restore perfusion and prevent limb loss. Dual antiplatelet therapy is widely used, yet patient response varies, and poor platelet inhibition is associated with poor outcome. The PRiORiTY study aims to evaluate platelet function testing to optimise treatment.

Methods
As part of feasibility phase of the PRiORiTY study, platelet function test was carried out in 28 patients undergoing revascularisation with the antiplatelet regimens. Platelet function was assessed using a thromboelastography with platelet mapping. An ADP value <42 was classified as poor platelet inhibition (Ferreira et al. 2024). Outcomes including revascularisation rates, amputation, and mortality were assessed.

Results
Poor platelet inhibition was observed in 19/28 patients (68%). Among 10 patients followed for 4–12 months, 6 (60%) required repeat revascularisation, 2 underwent major amputation, and 1 died with a median time of 7 months to repeat procedure. One patient remained event-free. In contrast, patients with optimal platelet inhibition had a 44% repeat revascularisation rate, no major amputations, and rest remained event-free with a longer median time.

Conclusion
Our initial data indicates a significant proportion of CLI patients exhibit resistance to standard antiplatelet therapy, leading to high rates of repeat revascularisation and major amputation. Despite identifying high-risk patients using platelet function testing, the lack of personalised treatment strategies may contribute to poor outcomes. The feasibility phase of the PRiORiTY study demonstrates the practicality of platelet function testing in real-world settings and its potential to guide personalised antiplatelet therapy.

PERIPHERAL PRIZE

Real-world experience of Indigo aspiration thrombectomy for acute limb ischaemia

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Background
We evaluated the outcomes of the Indigo aspiration thrombectomy system (Penumbra Inc) in the management of acute limb ischaemia (ALI).

Method
All patients with ALI who were treated with Indigo aspiration thrombectomy at a single large UK tertiary centre between Jan 2021-Aug 2024 were identified via the Radiology Information System (RIS). RIS and Electronic Patient Record were used to record patient demographics, Rutherford score, device, adjunctive procedures, complications, and 30-day and 1-year mortality and amputation rates. Technical success was defined as Thromboaspiration in Peripheral Ischaemia (TIPI) score 2/3 evaluated by an interventional radiologist reviewing the procedural images.

Results
81 patients with ALI were treated with Indigo aspiration thrombectomy over a 3-year period. The mean age was 67 years and 70% were male. Adjunctive techniques included angioplasty (n = 55), stenting (n = 33) and thrombolysis (n = 19). Technical success (TIPI 2/3) was achieved in 85% of patients. No device-related adverse effects recorded. Follow-up data was available on 73 patients. At 30-day follow-up, there were 4 deaths and 18 major amputations. 30-day amputation-free survival was 74%. At 1-year follow-up, there were an additional 10 deaths and 6 major amputations. 1-year amputation-free survival was 59%.

Conclusion
Our results are comparable to TOPAS and STILE data on catheter-directed thrombolysis and surgical embolectomy. Our results are inferior to INDIAN and STRIDE registries, perhaps reflecting the real-world nature of our cohort, and also due to a learning curve with the Indigo system at the start of the study period.

PERIPHERAL PRIZE

Endovascular vs. Open Surgical Repair of Popliteal Artery Aneurysms: A Meta-Analysis

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Background
Popliteal artery aneurysms (PAAs) are the most common peripheral arterial aneurysms, with endovascular (EVAR) and open surgical repair (OSR) being the primary treatment modalities. The optimal approach remains debated, with concerns regarding long-term durability and reintervention rates. This meta-analysis aimed to compare EVAR and OSR for PAAs, focusing on patency, limb salvage, reintervention, and complications.

Method
A systematic review was conducted using PubMed, Google Scholar, MEDLINE, Embase, Cochrane and Scopus. Studies reporting mid-term (1–5 years) or long-term (>5 years) outcomes of EVAR and OSR for PAAs were included. A total of 1140 records were screened, with 22 studies meeting the inclusion criteria. Extracted data included patient demographics, aneurysm characteristics, intervention type, follow-up duration, and key clinical outcomes. A random-effects model was used for meta-analysis, and heterogeneity was assessed using the I^2 statistic.

Results
The meta-analysis included 22 studies with 1823 patients undergoing EVAR or OSR for PAAs. Primary and secondary patency rates at 12 and 24 months were comparable between EVAR and OSR (ORs: 0.74–1.25, $p > 0.20$). Limb salvage rates remained high (98%–100%) across both groups. EVAR demonstrated a non-significant trend toward reduced reintervention. No significant difference in survival outcomes was observed at 12 and 24 months. Study heterogeneity was noted but did not alter findings.

Conclusion
EVAR and OSR provide comparable outcomes in PAA management. EVAR offers a minimally invasive alternative with faster recovery, whereas OSR remains suitable for complex cases. Treatment should be individualized based on anatomical and patient-specific factors.

Endovascular treatment with intravascular lithotripsy for common femoral artery disease: A safe and feasible alternative to open surgery

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Background
Common femoral endarterectomy (CFAE) is considered the gold standard for common femoral artery (CFA) occlusive disease; however, it carries significant complications, with surgical-site infection reported in almost a third of cases. Endovascular innovations, such as intravascular lithotripsy (IVL) for vessel preparation, may provide an alternative to CFAE.

Method
Patients undergoing endovascular treatment with IVL for CFA occlusive disease at a single tertiary centre from January 2021 to September 2024 were identified, and their electronic records were reviewed. Descriptive analysis was undertaken including co-morbidities, Rutherford status, length of stay, complications, primary patency, freedom from revascularisation, amputation, and mortality rate.

Results
Thirty-two consecutive patients received endovascular treatment with IVL for CFA occlusive disease (male *n*=20; median age=72, IQR 68-79). Most had hypertension (*n*=27, 84%) and diabetes (*n*=18, 56%), followed by hypercholesterolaemia (*n*=13, 41%) and ischaemic heart disease (*n*=10, 31%). Most presented with Rutherford 5 disease (*n*=16, 50%). Fourteen individuals had received previous revascularisation including CFAE (*n*=7, 22%) and CFA stenting (*n*=1, 3%). Median length of stay was 4 days (IQR 1-7). Three complications were reported: bleeding, acute limb ischaemia and infection. Six-month primary patency was 84%, freedom from target vessel revascularisation 94%, amputation rate 19% and mortality rate 54%.

Conclusion
Endovascular treatment with IVL for CFA occlusive disease is safe and feasible with low complication rates, short hospital stays and good freedom from target vessel revascularisation. Given the clinical equipoise, a randomised controlled trial is needed to assess the clinical and cost-effectiveness of CFAE versus endovascular treatment for CFA occlusive disease.

The Fate of the Contralateral Limb after Major Lower Limb Amputation for Peripheral Arterial Disease or Diabetes Mellitus

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Background
The contralateral limb (CL) is at risk after major lower limb amputation (MLLA) due to the systemic nature of the underlying disease. Establishing the fate of the CL will determine whether there is a role for clinical surveillance.

Method
A single centre retrospective cohort study inclusive of all patients undergoing MLLA between 01/01/2013 and 01/07/2023 for PAD or DM was performed. Those with previous or concurrent CL MLLA were excluded. Kaplan-Meier survival plots and Cox-proportional hazard ratios were calculated for development of CL disease, and CL amputation-free survival (CL-AFS) was determined for those undergoing CL-revascularisation.

Results
531 patients underwent first unilateral MLLA during the study period. Of these, 175 (33.0%) developed CL disease with 67% of this presenting within the 1st year. Patients primarily presented with CLTI (70.3%) and DFI (13.1%). Disease at presentation was severe with 76.5% of symptomatic patients presenting with tissue loss. Independent predictors of developing CL disease were chronic PAD, DM and significant radiological CL disease. 127/175 patients went on to have intervention, with 95 revascularized (137 procedures; 84.7% endovascular, 13.1% open, 2.2% hybrid) and 50 requiring a CL-MLLA. Two-year CL-AFS after revascularisation was 45.3%, with those representing with Rutherford 3/4 disease having a 2-year CL-AFS of 60.9% compared to 33.9% for Rutherford 5/6.

Conclusion
CL disease after MLLA is common and presents early with severe clinical disease. High risk groups can be defined and intervention at an earlier clinical stage may improve outcome, creating a strong case for surveillance of the CL after MLLA.

Clinical significance of high on-treatment platelet reactivity in patients taking P2Y12 inhibitors following lower limb revascularisation for peripheral artery disease: A systematic review and meta-analysis

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Background
The effect of P2Y12 inhibitors such as Clopidogrel are known to be reduced in certain individuals due to a phenomenon named High on-treatment platelet reactivity, HTPR. However, the clinical effect of HTPR in patients on P2Y12 inhibitors following lower limb revascularisation for Peripheral Artery Disease, PAD is not clear. The aim of this study was to assess the clinical impact of HTPR following lower limb revascularisation.

Method
Systematic review and meta-analysis of studies assessing platelet function following lower limb revascularisation was done. The primary outcome was all-cause mortality. Secondary outcomes were major adverse cardiovascular events, MACE; major adverse limb events, MALE; and target lesion revascularisation, TLR. Outcome quality was assessed using the Grading of Recommendations Assessment, Development, and Evaluation, GRADE tool.

Results
A total of 24 studies enrolling 3121 patients were included. The pooled incidence of HTPR was 28% (95% CI 26-34). There was a slightly higher risk for all-cause mortality in patients with HTPR (OR 1.77, 95% CI 0.98 – 3.01, p = 0.05), similarly for MACE (OR 5.12, 95% CI 0.72 – 37.61, p = 0.18). HTPR was associated with MALE (OR 7.09, 95% CI 2.27 – 17.24, p = 0.001). Clopidogrel was used in all the studies (either alone, with other P2Y12 Inhibitors, or other antiplatelets). All the outcomes were found to have very low level of evidence.

Conclusion
HTPR was associated with increased risk of clinical outcomes in patients on P2Y12 inhibitors following lower limb revascularisation. Further studies are required to assess tailored antiplatelet therapy in PAD patients.

POSTERS

POSTERS

POSTER 1
A survey of early year consultant vascular surgeons in the UK to assess wellbeing, support and the availability of mentoring
Kaji Sritharan[1], *Matt Popplewell*[2], *Paddy Coughlin*[3], *Hannah Travers*[4], *Claire Dawkins*[5], *Andy Garnham*[2]
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POSTER 2
Intravascular lithotripsy (IVL) in treating aortic occlusive disease: A pilot study
Elsamoual Mohammed, *Arindam Chaudhuri, Ramita Dey*
Bedford NHS Hospital, Bedford

POSTER 3
From hopeless to healing: Recanalising deep veins in reformed intravenous drug users
Joseph Winstanley, *John Reicher, Sandip Nandhra*
Freeman Hospital, Newcastle upon Tyne

POSTER 4
Propensity Matched Analysis of AAA repair for patients with concurrent peripheral arterial disease
Navanith Murali Murali[1,2], *Angela Lee*[1], *Lukschana Senathirajah*[1], *Eman Otify*[2], *Tariq Ali*[1,2], *Philip Stather*[1,2]
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POSTER 5
Early and midterm outcomes of inner branch EVAR for complex aortic aneurysms
Amr Eissa, *Mohamed Elsherif*
Sheffield Teaching Hospitals, Sheffield

POSTERS

POSTER 6
Endovascular aneurysm repair with Perclose ProglideTM percutaneous access: success rate and factors associated with access failure
Santiago Mier y Teran-Ellis, *Shaneel Patel, Chyu Yan Naing, Emmanuel Katsogridakis, Simon Neequaye, Flavius Parvulescu, Jonathan Smout, Robert Fisher*
Liverpool University Hospitals NHS Foundation Trust, Aintree University Hospital, Liverpool

POSTER 7
Preliminary efficacy of a supervised walking program for intermittent claudication: A prospective analysis
Mahmoud Badawi Hassan[1], *Deona Chan*[2], *Laura Wild*[2], *Sohail Choksy*[2]
[1]Colchester
[2]ESNEFT, Colchester

POSTER 8
Mental health among NHS clinical staff and patients in the vascular surgery department
Anwar Al-Kassar, *Mohamed Mustafa, Ragai Makar, Thomas Nicholas*
Countess of Chester Hospital, Chester

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Shockwave Medical

Shockwave Medical, a business unit of Johnson & Johnson MedTech, is a leader in the development and commercialization of innovative products that are transforming the treatment of cardiovascular and peripheral arterial disease. Its first-of-its-kind Intravascular Lithotripsy (IVL) technology has transformed the treatment of calcified arteries by safely using sonic pressure waves to disrupt challenging calcified plaque, resulting in significantly improved patient outcomes. Offering an effective strategy for calcified PAD, IVL provides superior vessel prep and excellent long-term results in calcified vessels. Our low-risk, effective mechanism of action (MOA) delivers consistent results and powerful calcium-cracking capabilities — even in the hardest-to-reach vessels. Learn more at www.shockwavemedical.com

Terumo Aortic

At Terumo Aortic, we partner with our customers to revolutionise aortic care. We deliver innovation, versatility and precision with the broadest range of solutions that can be personalised for every patient. We are further complementing our implantable device portfolio through the development of digital technologies.

VP Med

VP MED is a leading UK-based MedTech company driving the adoption of innovative, patient-focused technologies. We collaborate with clinical leaders, offer nationwide support, and deliver educational programmes that empower healthcare professionals. Our mission is to help people through meaningful medical innovation and dedicated product support.

W.L. Gore & Associates

W. L. Gore & Associates is a global materials science company dedicated to transforming industries and improving lives. Since 1958, Gore has solved complex technical challenges in demanding environments — from outer space to the world's highest peaks to the inner workings of the human body. With more than 13,000 Associates and a strong, team-oriented culture, Gore generates annual revenues of $5 billion.
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Gore engineers medical devices treat a range of cardiovascular and other health conditions. With more than 55 million medical devices implanted over the course of more than 45 years, Gore builds on its legacy of improving patient outcomes through research, education and quality initiatives. Product performance, ease of use and quality of service provide sustainable cost savings for physicians, hospitals and insurers. Gore is joined in service with clinicians and through this collaboration we are improving lives.
For more information, visit g**oremedical.com**

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BSET

British Society of
Endovascular Therapy

BSET Endovascular Training Course 2026
Thursday 5th – Friday 6th March

BSET Annual Meeting 2026
Thursday 25th – Friday 26th June
(National Vascular Training Day Wednesday 24th June)

BSET Annual Meeting 2027
Thursday 24th June – Friday 25th June
(National Vascular Training Day Wednesday 23rd June)

At Tortworth Court Hotel, Wotton-under-Edge, South Gloucestershire

10.5 hours CPD has been awarded for the Annual Meeting by the Royal College of Surgeons of Edinburgh (RCSEd03495)

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