Poster 1

The provision of vascular surgery in sub-Saharan Africa: A multi-country facility readiness survey

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Introduction

The burden of vascular conditions is rising in sub-Saharan Africa (sSA), with rising rates of diabetes mellitus and peripheral arterial disease. We aimed to evaluate the readiness of health systems to deliver vascular surgery services in sSA.

Methods

Hospitals which perform major lower limb amputations in sSA were invited to participate in a survey which assessed hospital infrastructure and vascular service provision. Surveys were modelled on the World Health Organisations Service availability and readiness assessment (for domains related to infrastructure) and on the Society for Vascular Surgery consensus recommendations for essential vascular care in low- and middle-income countries.

Results

Seventy hospitals from 20 countries in sub-Saharan Africa were surveyed. The majority (64%) were tertiary level hospitals. In the infrastructure domain, significant challenges were identified, with electricity always available and water always available in only 25% and 15% of centres participating, respectively. Diagnostics are also a significant challenge, with ultrasound and CT always available in 28.1% and 12.5% of centres respectively. Whilst all centres performed major lower limb amputations, only 67.8% had the capacity to perform vascular anastomosis, and 49.4% had the capacity to perform damage control shunting procedures. The median number of vascular trained surgeons working in each country was 10.

Conclusion

The provision of vascular surgery services in sSA is limited by infrastructure challenges, diagnostic challenges and lack of training and expertise. Understanding which of these challenges is most important, and most amenable to intervention, will facilitate collaborative international efforts to address them.

Poster 2

Comorbidity prevalence and clinical outcomes following endovascular aortic aneurysm repair in patients with and without diabetes mellitus: A systematic review

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Background
Abdominal aortic aneurysm (AAA) is associated with significant morbidity and mortality, with endovascular aortic aneurysm repair (EVAR) widely used for elective management. Despite an increasing global prevalence of diabetes mellitus, its effect on EVAR outcomes remains unclear.

Methods
A systematic review was conducted to compare comorbidity burden and outcomes between diabetic and non-diabetic patients undergoing EVAR for non-ruptured AAA. Pooled Mantel-Haenszel analyses were performed where appropriate.

Results
Overall, EVAR was associated with low perioperative mortality but substantial long-term mortality, rupture risk and complications. 30-day mortality after EVAR was low, with no significant difference between diabetics and non-diabetics (OR: 1.26, 95% CI: 0.92–1.74). Diabetic patients had higher rates of hypertension (OR: 2.20, 95% CI: 2.02–2.41), coronary artery disease (OR: 1.47, 95% CI: 1.38–1.57), peripheral artery disease (OR: 1.19, 95% CI: 1.00–1.42) and renal impairment (OR: 1.64, 95% CI: 1.47–1.83). Other outcomes were assessed qualitatively due to heterogeneity in reporting and follow-up durations. All-cause mortality, reintervention and endoleak rates were high in both groups. Postoperative myocardial infarction rates were marginally higher in diabetics. Longitudinal survival data demonstrated substantial heterogeneity.

Conclusions
This review highlights the importance of comprehensive preoperative risk assessment and postoperative surveillance for all EVAR patients, irrespective of diabetes status. Diabetes itself does not appear to predict EVAR outcomes, with effects likely reflecting higher cardiovascular comorbidity. Future research should determine whether the higher rates of coronary artery disease and hypertension in diabetics and whether insufficient surveillance contribute to adverse post-EVAR outcomes.

Poster 3

Aortic Aneurysm repair in patients 85 years and over

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Background
This audit investigated post-operative outcomes of patients who had elective repair of abdominal aortic aneurysms aged 85 years or above. The aim was to assess safety in the very elderly, benchmarking this against the UK National Vascular Registry.

Methods
Retrospective audit at a major UK vascular unit. An independent researcher identified all abdominal aortic aneurysm repairs performed between January 2024 and January 2025. The minimum follow up was 1 year. Hospital electronic records were used to determine ASA grade and the following outcomes: length of stay, post-operative complications, reintervention, amputation and death within the first year.

Results
Sixteen cases were identified, of which 16/16 (100%) were repaired with EVAR. Median age was 86 years (range 85-91) and median ASA grade was 3 (range 2-4). Median length of stay was 2 days (IQR 1-6) and in hospital mortality was 0/16 (0%). 3/16 (19%) had post-operative complications which were mild (Clavien-Dindo scale 1 or 2). None required vascular reintervention in hospital. Over the first post-operative year: 2/16 (13%) died – one from EVAR thrombosis and one non-vascular death. 2/16 (13%) required unplanned vascular reintervention including one femoral ligation for infected pseudoaneurysm and one femoropopliteal bypass graft for CLTI. There were no amputations.

Conclusions
This series demonstrates that EVAR is as safe in 85y+ patients as it is in the wider population, when cases are selected appropriately. Therefore the benefit of EVAR in these patients is dependent on their longevity. This is now being examined by 5 year follow-up in our unit.

Poster 4

Comparison of post operative neck dilatation following in EVAR with Self-Expanding (SES) and Non-self Expanding (NSES) stent grafts

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Background
Aortic neck dilatation is a known complication following EVAR potentially causing Migration or endoleaks that may require further intervention. The mechanism for this is thought to be multifactorial. Continued radial force of the implanted self-expanding stent(SES) is implicated as an important cause for progressive neck dilatation. The introduction of polymer sealing endografts avoids continued outward pressure on the neck. This study aims explore if the type of proximal seal achieved is a major factor in neck dilatation.

Methods
A retrospective analysis of patients treated by EVAR for infra-renal AAA in a centralised vascular service covering 1.5 million population was undertaken including all endovascular aneurysm repairs between 2017-2021. Neck diameters were recorded preoperatively and measured 5mm from lowest renal artery on post-operative scans at monthly, yearly and 2-yearly intervals. Measurements were validated by verifying them with observers blinded to documented values. AAA sac sizes and all complications were also recorded. The primary end point was the incidence and extent of aortic neck dilatation after EVAR and the secondary end points were the occurrence of complications and need for reintervention.

Results
Initial analysis of 85 patients with SES and 45 patients with NSES has revealed no clinically significant differences in neck dilatation post EVAR. Results of the ongoing multivariate analysis correlating the effects of variables such as aneurysm features and patient factors will be presented.

Conclusion
This study addresses the key question of effectiveness of distinctly different devices in EVAR by assessing an important parameter of neck dilation postoperatively.

Poster 5

Type B aortic dissection in pregnancy: A systematic review and meta-analysis of presentation, management, and outcomes

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Background
Acute type B aortic dissection (TBAD) in pregnancy is rare but potentially catastrophic. Early recognition and personalised treatment have been shown to improve maternal and foetal survival, however there are large discrepancies in management strategies in the published literature. The primary aim of this systematic review was to determine the mortality rates and most common treatment modalities in pregnant patients with TBAD. The secondary aim was to characterise the presentation of TBAD during pregnancy.

Methods
The protocol for this review was registered on PROSPERO (CRD420251173789). The PRISMA 2020 checklist was followed. Electronic databases were searched from conception to October 2025. Case series (n>3) were included in the analysis. A random-effects meta-analysis was performed to calculate gestational age at diagnosis, treatment modality and mortality rates. Included studies were appraised using tools respective of study design.

Results
331 records were screened in the initial search. A total of eight studies satisfied the inclusion criteria, evaluating 409 patients. Maternal mortality was 8.2% (95% CI: 5.7 – 11.0%) and foetal mortality was 37.8% (95% CI: 20.4 – 56.7%). An endovascular treatment was used in 39.7% of patients (95% CI: 6.4 - 72.6%). The majority of patients were diagnosed with a TBAD during the third trimester (40.3%, 95% CI: 17.2 – 60.9%). The evidence quality was low.

Conclusion
TBAD is associated with high rates of maternal and foetal mortality. A multidisciplinary approach is required to deliver tailored treatment. Large registry studies are needed to better characterise treatment outcomes of TBAD in pregnancy.

Poster 6

Clinical and economic outcomes of percutaneous versus open femoral access for endovascular aortic interventions

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Background
Percutaneous femoral access is increasingly used for EVAR and TEVAR, with potential benefits including reduced groin morbidity and faster recovery. However, concerns persist regarding closure device failure and increased costs. This study compares clinical outcomes and hospital admission costs between percutaneous and open femoral access techniques.

Methods
A retrospective single-centre study was conducted at University Hospitals Coventry and Warwickshire, including elective and emergency EVAR and TEVAR procedures performed via femoral arterial access. Patients undergoing fenestrated EVAR or non-femoral access were excluded. Primary outcomes were access-site complications requiring surgical intervention and total hospital admission cost. Secondary outcomes included technical success, length of hospital stay, and 30-day mortality.

Results
Eighty-nine endovascular aortic procedures were analysed, comprising 53 (59.6%) open femoral cutdowns and 36 (40.4%) percutaneous accesses. Percutaneous access achieved a technical success rate of 91.7%, with three conversions to open cutdown due to severe common femoral artery calcification and large sheath size. Access-site complications requiring surgical intervention were significantly higher in the open group compared with the percutaneous group (30.2% vs 2.8%, $p < 0.001$). Median length of hospital stay was three days in both groups ($p = 0.88$). Overall 30-day mortality was 1.1%, with no significant difference between access strategies. Median total admission cost was similar between open and percutaneous access (£43,210.64 vs £43,253.05, $p = 0.93$).

Conclusion
Percutaneous femoral access for EVAR and TEVAR is safe and effective, significantly reducing access-site morbidity without increasing hospital admission costs. Appropriate patient selection remains crucial to minimise closure device failure and optimise outcomes.

Poster 7

Predictors of 30-day readmission following elective lower limb angioplasty: A single-centre retrospective study

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Background
30-day readmission after elective lower limb angioplasty reflects both patient frailty and procedural complexity. We aimed to pinpoint specific predictors of readmission following elective lower limb angioplasty to better target peri-operative optimisation and patient selection.

Methods
We performed a retrospective analysis of all elective lower limb angioplasties at a single tertiary centre (Jan 2024–Dec 2025) using National Vascular Registry data. Demographics and procedural variables were compared between readmitted and non-readmitted cohorts. We calculated Odds Ratios (OR) and utilised Fisher's exact and Mann-Whitney U tests to identify significant predictors of readmission.

Results
Of 190 elective procedures, 16 (8.4%) resulted in 30-day readmission. The readmitted cohort exhibited a significantly higher incidence of comorbidities compared to the non-readmitted group, specifically previous stroke (25.0% vs 2.9%; OR 11.3, p=0.003), chronic kidney disease (37.5% vs 9.8%; OR 5.5, p=0.006), and chronic lung disease (43.8% vs 16.7%; OR 3.9, p=0.016). Additionally, hybrid interventions were associated with threefold increase in readmission risk (37.5% vs 12.1%; OR 4.4, p=0.014). Conversely, traditional risk factors like diabetes (43.8% vs 29.9%, p=0.27) and ischaemic heart disease (31.3% vs 16.7%, p=0.17) did not differ significantly between groups. Length of stay did not differ significantly between groups (p=0.49).

Conclusions
Readmission following elective angioplasty is driven by procedural complexity and specific high-risk comorbidities; notably stroke and renal failure. Recognising red flags early allows us to shift from reactive care to proactive discharge planning. Identifying these patients with enhanced peri-operative optimisation and targeted community follow-up is essential to reducing the burden of readmission.

Poster 8

Contemporary patterns of femoropopliteal peripheral arterial disease treated with the Orbital Atherectomy System (OAS): A retrospective observational analysis

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Background
Peripheral arterial disease (PAD) is associated with significant cardiovascular morbidity and limb loss in the United Kingdom (NICE, 2012; Aboyans et al., 2017). Calcified femoropopliteal disease remains technically challenging, and plaque modification devices such as the Orbital Atherectomy System (OAS) have been developed to improve vessel preparation in complex lesions (Rocha-Singh et al., 2014). This study evaluates anatomical distribution, comorbidity burden and short-term outcomes in patients undergoing femoropopliteal intervention with OAS within a defined UK cohort.

Methods
A retrospective observational analysis was conducted using predefined spreadsheet variables only. Lesion distribution (superficial femoral artery [SFA], common femoral artery [CFA]), comorbidities, Rutherford classification, and recorded outcomes were analysed descriptively. Free-text comments were reviewed to contextualise anatomical complexity.

Results
Twenty-two patients were included. Advanced disease (Rutherford category ≥4) was present in 59.1% (13/22). SFA involvement was observed in 63.6% and CFA involvement in 45.5%. Comorbidity prevalence was substantial: hypertension 86.4%, diabetes mellitus 68.2%, dyslipidaemia 59.1%, and chronic kidney disease 36.4%, with end-stage renal disease in 4.5%. All procedures were technically successful, with no recorded limb loss. No target lesion revascularisation (TLR) or major adverse cardiovascular and cerebrovascular events (MACCE) were observed within the dataset period. All patients were discharged following intervention without reported adverse limb-related outcomes to date.

Conclusion
In this real-world cohort treated with OAS, femoropopliteal PAD was frequently advanced and associated with significant cardiometabolic comorbidity. Procedural success was high, with no limb loss or early adverse events recorded.

Poster 9

Does prior angioplasty influence bypass strategy in TASC C and D femoropopliteal lesions?

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Background
Management of complex femoropopliteal arterial disease, particularly TASC C and D lesions, remains challenging. Although surgical bypass has traditionally been the preferred treatment, endovascular intervention is increasingly used as first-line therapy. This study evaluated whether failed endovascular intervention in complex femoropopliteal disease leads to a change in bypass strategy, specifically requiring more distal bypass targets.

Methods
This single-centre retrospective observational study included 51 patients with femoropopliteal arterial disease who underwent endovascular treatment that failed and subsequently required surgical bypass. Patient data were obtained from medical records and the National Vascular Registry. Pre-treatment angiograms from the initial angioplasty were independently reviewed by two blinded vascular consultants, who recommended an optimal bypass strategy based solely on these images. Their recommendations were then compared with the actual bypass procedures performed after endovascular failure.

Results
The cohort had a mean age of 67.8 ± 12.8 years, with a male-to-female ratio of 33:17. The mean interval between angioplasty (± stenting) and bypass surgery was 17.9 months (range 0.03–61.6 months). Out of 51, A change in bypass strategy occurred in 16 of 47 cases of TASC C and D (34%), most commonly requiring a more distal or less favourable bypass target.

Conclusion
Failed endovascular treatment in complex femoropopliteal disease is associated with a significant likelihood of altered and more distal bypass strategies. These findings highlight the importance of careful patient selection and consideration of long-term surgical implications when planning initial endovascular intervention. These results warrant further investigation to determine their impact on clinical practice.

Poster 10

Endovascular management of cancer-associated iliocaval and iliofemoral venous disease: single-centre outcomes and contemporary context

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Background
Cancer-associated iliocaval/iliofemoral venous obstruction is multifactorial (thrombus and/or extrinsic compression). Symptom relief is often inadequate with anticoagulation alone, and thrombolysis may be unsafe or ineffective. Endovascular revascularisation can provide immediate haemodynamic benefit. We report single-centre outcomes stratified by aetiology to inform selection and counselling.

Methods
Consecutive malignancy patients undergoing endovascular intervention for symptomatic iliocaval/iliofemoral venous disease (2020–2025) were retrospectively identified. Referral drivers were classified as DVT/thrombus, compression, or both. Procedures included venoplasty, stenting, and mechanical/aspiration thrombectomy. Primary outcomes were post-procedural symptom improvement and reintervention; mortality was recorded (not adjudicated).

Results
Eighteen patients were treated (mean age 60.8 years; M/F 14/4). Referral reasons were DVT/thrombus 9/18 (50%), compression 6/18 (33%), both 2/18 (11%), other 1/18 (6%). Stenting was used in 13/18 (72%); mechanical/aspiration thrombectomy in 7; venoplasty alone in 1. Symptom improvement was documented in 9/11 (81.8%) with recorded follow-up (best-case); assuming missing outcomes as no improvement, 9/18 (50%) (worst-case). Reintervention occurred in 5/18 (27.8%). Seven patients had recorded death dates during follow-up: six consistent with advanced oncologic disease and one fatal pulmonary embolism after the procedure.

Conclusion
Endovascular therapy for cancer-associated venous disease in our centre is feasible, stent-forward, and clinically impactful in carefully selected patients, with acceptable reintervention rates given disease biology. These data support guideline-consistent practice and motivate a prospective, multi-centre registry focusing on patient-centred outcomes (symptom relief, mobility), patency, and reintervention in malignancy.

Poster 11

Transcervical carotid artery revascularisation complicated by retrobulbar haemorrhage: A case report

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Background

Transcervical carotid artery revascularisation (TCAR) is an established alternative to carotid endarterectomy (CEA) for the management of carotid artery stenosis, with lower reported rates of cranial nerve injury and embolic complications. Ophthalmic complications have not previously been described.

Case Presentation

A 62-year-old male presented with left-sided neurological deficit and was diagnosed with a minor right middle cerebral artery infarct. Computed tomography angiography demonstrated >70% stenosis of the right internal carotid artery. TCAR was performed under local anaesthesia. During stent deployment, the patient developed acute right orbital swelling, pain, and visual disturbance. Imaging confirmed retrobulbar haemorrhage with associated retinal arterial thrombus, likely secondary to ophthalmic artery injury. Emergency lateral canthotomy and cantholysis were performed for orbital compartment syndrome. At follow-up, proptosis improved; however, persistent eyelid malposition (ectropion) required surgical correction. The carotid stent remained patent, but the patient sustained permanent right-sided visual loss.

Conclusion

Retrobulbar haemorrhage is a rare but vision-threatening complication of TCAR. Prompt recognition and urgent multidisciplinary management are essential to optimise outcomes.

Poster 12

Establishing a new Endovascular Arteriovenous fistula service: A multidisciplinary team approach

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Background

As part of a multidisciplinary overhaul of our dialysis access pathway, we introduced Endovascular arteriovenous fistula(EndoAVF) as an alternative to surgical arteriovenous fistula(sAVF) for selected patients. This quality improvement programme utilises data-driven methods to ensure success and long term sustainability.

Methods

Locally, patients choosing haemodialysis now undergo vein mapping via a standardized electronic vascular access proforma developed by nephrology, vascular surgery, and interventional radiology. Data is captured on a database interfaced with the hospital's electronic medical record (EMR). This real-time tracking allows optimal resource allocation for surgical lists. While sAVF candidates are consented for a pooled surgical list, EndoAVF candidates undergo further targeted ultrasound mapping by a multidisciplinary team (MDT) when eGFR indicates clinical need. EndoAVF procedures are performed under regional block in a hybrid theatre suite by interventional radiology and vascular surgery with anaesthetics support. Post-procedure, we implemented nephrology-led duplex ultrasound surveillance at weeks two and four to assess maturation.

Results

Following local and national proctoring and Trust equipment approval, we successfully established the service. Industry support facilitated comprehensive training for dialysis nursing staff regarding needling techniques. Formalised input from Vascular and Anaesthetic MDTs ensures rigorous case selection and patient safety. To date, we have successfully created multiple EndoAVFs and streamlined the local creation and follow-up pathways.

Conclusion

Through integrated multidisciplinary planning and standardized data tracking, we have successfully implemented an EndoAVF service. Patients are now effectively dialysing through definitive endovascular access.

Poster 13

Vascular specialty training duration in comparison to other higher surgical specialties in the UK – A 15-year retrospective analysis (2010–2025)

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Background
UK higher surgical training varies in progression. This study assesses longitudinal outcomes in vascular surgery, determinants of delay and cross-specialty patterns to guide interventions.

Methods
Anonymised longitudinal national progression data from NHS England for 8,165 surgical trainees was analysed. Progression was measured by Developmental Outcomes with Training Extension (DTE) award. Demographics and training patterns, including LTFT and OOPR, were compared across specialties using Fisher's exact test.

Results
3,237 Surgical Trainees (2,431 Male) with records (ST3 – CCT) were analysed; 83 Vascular Surgery trainees. Median time to CCT, excluding Urology and OMFS was 6.31 years (IQR: 1.8). Vascular Surgery showed the longest training durations 7.14 years (IQR: 2.71), alongside Paediatric and General Surgery. Across specialties, 27.6% completed with a DTE; Vascular Surgery higher at 30.1% (OR 1.3; 95% CI 0.67-1.86; $p = 0.61$), with Paediatric Surgery (47.8%; OR 2.46; 95% CI 1.46-4.12; $p < 0.001$) and General Surgery (32.4%; OR 1.40; 95% CI 1.17-1.68; $p < 0.001$). LTFT uptake averaged 11.6%, with Vascular Surgery above this at 13.3% (OR 1.2; 95% CI 0.57 – 2.31; $p = 0.597$). Paediatric and General Surgery also showed increased LTFT use. OOPR occurred in trainees (16.2%), Paediatric Surgery (13.4%; OR 0.72; 95% CI 0.3 – 1.48; $p = 0.420$), highest in Vascular Surgery (31.3%; OR 2.21; 95% CI 1.32 – 3.61; $p < 0.002$) and General Surgery (31.6% OR 3.54; 95% CI 2.87 – 4.37; $p < 0.001$).

Conclusions
Vascular Surgery OOPR uptake may extend training without impairing progression. Further longitudinal analysis will assess predictors of non-progression or skill regression.

Poster 14

Comparison of Total Dose Area Product (DAP) between conventional and hybrid vascular theatres: An audit at one of the NHS Lanarkshire hospitals

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Background
Endovascular aortic repair procedures are dependent on fluoroscopic imaging, exposing patients and staff to ionising radiation. Dose Area Product (DAP) and fluoroscopy time are indicators of radiation exposure. Hybrid theatres equipped with advanced fixed imaging systems may offer improved dose optimisation compared with previously available systems. This audit aimed to compare radiation exposure between conventional angio suite (Philips Allura) and hybrid vascular theatres (Philips Azurion) during EVAR and FEVAR procedures.

Methods
A retrospective audit of 100 patients undergoing EVAR or FEVAR at one of NHS Lanarkshire hospital (2019–2023) was conducted. Fifty procedures were performed in a conventional theatre (Allura system) and fifty in a hybrid theatre (Azurion system). Median total DAP ($Gy{\cdot}cm^2$) and fluoroscopy time (minutes) were derived from PACs system. Also, the median age and BMI of patients were included.

Results
The results demonstrate a notable reduction in total DAP in procedures performed in the hybrid theatre compared with those carried out using the Allura system, with a difference of approximately 63.6 $Gy{\cdot}cm^2$, which is a 37.3% reduction. Fluoroscopy time was slightly longer in the hybrid group by 7 minutes and 50 seconds. Despite increased fluoroscopy duration, overall radiation exposure was lower in the hybrid suite. Recorded DAP values were within national diagnostic reference levels.

Conclusion
Hybrid vascular theatres achieved a substantial reduction in radiation dose compared with conventional systems, supporting improved radiation safety. Adoption of advanced imaging technologies and continued adherence to radiation protection principles are essential to optimise patients and staff safety.