

OSCARS 2026

SESSION 1 ABSTRACTS: LOWER LIMB & ELECTIVE

Outcomes following day case Total Ankle Replacement, hindfoot and ankle fusions after establishment of an ambulatory pathway at the South West Ambulatory Orthopaedic Centre

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Aims

Ankle replacements and hindfoot fusions have traditionally been undertaken as inpatient procedures. Following the opening of the South West Ambulatory Orthopaedic Centre we designed a day case pathway for these procedures. Outcome data was prospectively collected to allow for analysis of the introduction of this practice.

Methods

All patients listed for foot and ankle surgery follow a standard pathway with pre-operative preparation (physiotherapy, occupational therapy) and standard pre-assessment. The anaesthetic technique is standardised (regional block and GA), whilst post operative therapy and analgesics follow a standard protocol. Success of day case discharge, pain levels and patient satisfaction data were collected for this study.

Results

An analysis of the prospectively collected data from 2022 and 2026 was undertaken. 1174 Foot & Ankle procedures were performed, including 40 TAR, 19 hindfoot fusions, and 14 ankle fusions (13 arthroscopic).

98.2% of Foot & Ankle cases were discharged on day of surgery. The day case rate of TAR was 70%, and 97% in hindfoot and ankle fusions. The remainder of the cases were discharged the morning after surgery.

75% of TAR patients reported mild or no pain on discharge, the rest with moderate pain. Hindfoot and ankle fusion patients reported mild or no pain.

Overall satisfaction with the ambulatory service was rated as very good by 92% of TAR patients and 100% of those undergoing hindfoot and ankle fusions.

There were no readmission to hospital within 30 days.

Conclusion

Introduction of a standardised care pathway for major hindfoot surgery has allowed for these procedures to be undertaken in a day case setting – with early mobilisation and high patient satisfaction.

IS FIXED-BEARING TOTAL ANKLE REPLACEMENT BETTER, OR JUST NEWER? A SYSTEMATIC REVIEW AND META-ANALYSIS OF 9,687 ANKLES

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Aims

Fixed-bearing total ankle replacement (TAR) is reported to have lower revision rates than mobile-bearing designs, but the designs entered practice a decade apart. We asked whether the fixed-bearing advantage survives adjustment for the era of surgery.

Methods

We searched six databases and two trial registries to November 2025 for cohorts of 30 or more primary TARs with at least two years of follow-up reporting all-cause revision (removal or exchange of a metal component, arthrodesis or amputation). Overlapping reports of one cohort were counted once. The revision rate per 100 implant-years of each implant arm was analysed by random-effects meta-regression with operative decade, bearing type and log follow-up as covariates. Sensitivity analyses included restriction to studies scoring at or above the median on the Methodological Index for Non-Randomized Studies. Registry data were summarised separately.

Results

Seventy-one cohorts contributing 82 implant arms (9,687 ankles, 875 revisions, 66,155 implant-years) and one randomised trial were included. Mobile-bearing cohorts were operated a median of eight years earlier (2006 versus 2014). Crude revision fell from 15.9% before 1995 to 2.5% after 2015. Bearing type alone gave a fixed-bearing rate ratio of 0.59 (95% confidence interval (CI) 0.40 to 0.88). Adjusted for era and follow-up, the era effect was 0.70 per decade (95% CI 0.55 to 0.90) and the bearing effect 0.64 (0.43 to 0.97). In the 45 higher-quality arms the bearing effect disappeared (0.98, 0.61 to 1.59) whereas the era effect persisted (0.60, 0.45 to 0.80). Registries comparing designs within the same era favoured fixed bearings (adjusted hazard ratios for mobile bearings 2.5 to 3.2).

Conclusion

Much of the reported superiority of fixed-bearing TAR reflects the era of surgery rather than the bearing. The residual bearing effect is small, model-dependent and absent in better-quality studies. Design comparisons that ignore operative era should be interpreted with caution.

FIRST RAY SHORTENING FOLLOWING FIRST METATARSOPHALANGEAL JOINT ARTHRODESIS: A SINGLE-CENTRE AUDIT COMPARED WITH THE LITERATURE

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Aims

First metatarsophalangeal joint (MTPJ) arthrodesis is an established treatment for hallux rigidus. Joint preparation inevitably shortens the first ray, and greater shortening has been associated with transfer metatarsalgia. Published shortening ranges from approximately 2 to 3 mm with conical reaming or minimal-resection techniques to over 7 mm with flat cuts. We aimed to quantify first ray shortening after MTPJ arthrodesis at our institution and compare it with published data.

Methods

All first MTPJ arthrodeses performed at a single UK centre during the 2025 calendar year were identified using the Bluespир theatre system and a manual review of all elective operating lists. Revisions with bone graft, cases without a postoperative radiograph and miscoded procedures were excluded. Two observers independently measured the lengths of the first ray and second toe on preoperative and postoperative anteroposterior radiographs. The second toe was used as an internal reference to correct for differences in radiographic magnification, and the percentage change in first ray length was calculated.

Results

Of 33 procedures identified, 29 arthrodeses in 28 patients were included. Mean first ray shortening was 2.5% (95% confidence interval 0.8 to 4.3%; median 2.9%), ranging from 9.4% lengthening to 12.3% shortening. Ten feet (34%) showed apparent lengthening. Mean shortening was 2.7% with saw cuts (n = 23), 2.2% with rongeurs (n = 3) and 1.3% with reamers (n = 3). The mean difference between observers in first ray measurement was similar in magnitude to the mean shortening itself.

Conclusion

First ray shortening after MTPJ arthrodesis at our centre was comparable to that reported for reaming and minimal-resection techniques, and less than that reported for flat cuts. However, measurement variability was of a similar magnitude to the shortening itself. A prospective re-audit using calibrated, standardised weight-bearing radiographs is required before an acceptable threshold for shortening can be defined.

AWAITING TOTAL HIP REPLACEMENT: DOES PRE-OPERATIVE EXERCISE THERAPY MAKE A DIFFERENCE?

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Aims

Patients typically wait over six months for a total hip replacement (THR), with longer waiting times associated with worse health related quality of life. The role of pre-operative rehabilitation, 'prehabilitation', has been identified by the National Institute for Health and Care Excellence as a key recommendation for research. This review compared patient-reported outcome measures (PROMs) and objective function following prehabilitation with standard care amongst adult patients awaiting THR for osteoarthritis. Length of stay (LOS) and independence upon discharge were also considered.

Methods

The PubMed electronic database was searched from the date of inception to 20th September 2026. Randomised controlled trials (RCTs) comparing function following prehabilitation and standard care were included.

The risk of bias was assessed using the Cochrane risk of bias assessment tool-2.

A narrative summary was provided concerning post-intervention functional measures.

Results

Of 1304 retrieved citations, nine RCTs (three pilot studies) were included. One had low risk of bias, three had some concerns and five were of high risk. There was heterogeneity between populations, interventions and outcome measures reported.

Six studies suggested improvement, or a trend towards improvement, of PROMs whilst awaiting surgery, but superiority amongst the intervention group was not sustained post-operatively.

Three of six studies reporting timed-up-and-go, and two of three studies reporting chair-raise time showed improvement in the intervention group pre-operatively but not post-operatively. Both studies reporting muscle strength identified improvement in the intervention group pre-operatively.

None of three studies reporting LOS showed a difference between intervention and control groups, whilst one study reported discharge to a rehabilitation facility less likely in the intervention group.

Conclusions

Prehabilitation may be associated with an improvement in pre-operative PROMs and objective function which was not relevant post-operatively compared with standard treatment. Results need to be interpreted cautiously, taking into consideration the methodological and clinical heterogeneity of the included studies.

OUTCOMES OF CEMENTED VERSUS UNCEMENTED TOTAL HIP ARTHROPLASTY IN SICKLE CELL PATIENTS: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Institutions: Guys and St Thomas' Hospital

Aims

Osteonecrosis of the femoral head is a common complication of Sickle Cell Disease (SCD), with severe disease frequently leading to Total Hip Arthroplasty (THA) as definitive management. There is limited data regarding the ideal implant choice in these cases. This review evaluates existing literature and compares clinical outcomes of uncemented vs cemented THA in SCD.

Methods

A systematic review following PRISMA guidelines was undertaken of Medline, EMBASE, Pubmed and the Cochrane Library Database from inception to April 2025. 14 studies with 1,009 total THAs were included in the review, comprising 498 cemented and 511 uncemented THAs. Outcomes measured were pre and post-operative Harris Hip Score (HHS), number of complications and revision rate.

Results

Uncemented stems achieved higher HHS scores (87.6; 95% CI: 81.8-93.4) compared to those using cemented stems (82.4; 95% CI: 38.0-126.9). Revision rates demonstrated a significant advantage for uncemented fixation (5.48% [95% CI: 3.82-7.81] vs 12.85% [95% CI: 10.19-16.08], $p<0.001$). Patients receiving cemented implants had more than double the risk of requiring revision surgery compared to those with uncemented implants (RR uncemented/cemented=0.43). Intraoperative fracture rates were significantly higher in the uncemented group compared to the cemented group (6.85% [95% CI: 4.97-9.38] vs 3.01% [95% CI: 1.83-4.91], $p=0.0056$), with uncemented fixation demonstrating more than twice the risk of intraoperative fracture (relative risk=2.27).

Conclusion

THA offers clear benefits in SCD, although the use of cement is debated. Considering fixation longevity and functional outcomes, uncemented THAs appear to be the superior choice. Uncemented THA offers reduced risk of revision surgery and greater postoperative satisfaction. Study limitations include high levels of heterogeneity and confounding factors leading to post-operative complications and outcomes.

MID-TERM RESULTS OF CERAMIC-ON-CERAMIC TOTAL HIP RESURFACING

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Institutions: Royal Cornwall Hospital

Aims

Hip resurfacing arthroplasty (HRA) offers an alternative to conventional total hip arthroplasty (THA) in young, active adults. Traditionally HRA has utilised metal-on-metal bearing surfaces, which has raised concerns due to an association with accelerated wear and adverse reactions to metal debris. Ceramic on ceramic (CoC) resurfacing seeks to address these issues by employing a more inert bearing surface with superior wear properties. This study evaluates the midterm outcomes of the premarket H1 CoC hip resurfacing system.

Methods

Eligible patients were recruited for a multicentre, prospective, non-randomised, observational study over a four year period (2018-2022). The data presented here reflects outcomes from a single, non-design centre. Preintervention data on patient demographics, medical history, Oxford Hip Score (OHS) and Harris Hip Score (HHS) were collected. All operations were performed by a single surgeon using the H1 CoC resurfacing implant. Postoperative assessment, including complications, OHS, HHS and radiographic imaging, were undertaken at 6 weeks, 6 months, 1 year, 2 years and 3 years.

Results

A total of 26 patients, 27 hips, were enrolled during the study period. Both HHS and OHS improved from baseline to 3 year follow-up. HHS increased from 45.9+/-13.5 to 95.8+/-6.5 and OHS increased from 17.7+/-7.7 to 45.1+/-5. Radiographic follow-up revealed varus collapse of the femoral implant in five patients, with a mean collapse angle of 27°. All patients with varus collapse were asymptomatic at final follow-up and their HHS and OHS were comparable to the rest of the cohort. There was one revision to THA for femoral neck fracture sustained after a 15ft fall.

Conclusion

The H1 CoC hip resurfacing system demonstrates promising midterm clinical outcomes, with sustained improvements in hip function up to three years postoperatively. Many patients successfully returned to high impact activities- including running, cycling, hockey, skiing and surfing- within one year of surgery.

DIGITAL TOMOSYNTHESIS FOR ASSESSING REGIONAL BONE MINERAL DENSITY IN EXCISED FEMORAL HEADS: AN EX VIVO FEASIBILITY STUDY

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Institutions: University of Exeter, Exeter, Royal Devon University Healthcare NHS Foundation Trust, Adaptix Ltd

Aims

Assessment of regional bone mineral density (BMD) may provide information relevant to pre-operative planning for total hip replacement (THR). Conventional dual-energy X-ray absorptiometry (DEXA) provides areal BMD measurements with limited spatial detail. This study explored the feasibility of a novel imaging technique called digital tomosynthesis (DT) to assess bone density distribution and generate three-dimensional representations of excised femoral heads.

Methodology

Twenty femoral heads retrieved from elective primary THR procedures underwent imaging using a novel DT system developed through collaboration between the University of Exeter and Adaptix Ltd. Specimens also underwent conventional DEXA and micro-computed tomography (CT) imaging. Reconstructed datasets generated bone density maps and three-dimensional representations. Assessment focused on regional variation within and between specimens and comparison of DT findings with the corresponding DEXA and micro-computed tomography datasets.

Results

Imaging demonstrated marked regional variation in bone density within individual femoral heads and between specimens, including those from patients with and without diagnosed osteoporosis. DT provided sectional images demonstrating trabecular structure and regional density distribution. Preliminary comparisons indicated concordance between DT-derived BMD measurements and DEXA. The available findings did not establish quantitative measurement agreement or diagnostic accuracy.

Conclusion

DT shows promise for characterising regional bone density and structure in excised femoral heads. This ex vivo feasibility study supports further evaluation of its potential role in pre-operative bone assessment and three-dimensional planning. Quantitative validation, repeatability assessment and in vivo studies are required before clinical application.

Zimmer NexGen Legacy Posterior Stabilised (LPS) Knee Replacement With The Option Tibial Tray: Is It Just An Implant Combination Problem?

Authors: P. Clarke, A. Matthews, R. Walker

Institutions: Royal Cornwall Hospitals Trust, Duchy Ramsay Health

Aims

To evaluate all-cause revision following Zimmer NexGen Legacy Posterior Stabilized (LPS) knee replacement using historical Option and newer Precoat tibial trays against other primary total knee replacement constructs. We looked to assess aseptic failure and timing, quantify revision burden using multivariable analysis.

Methods

A retrospective observational audit of National Joint Registry (NJR) records was performed. NJR K1 and K2 records from Royal Cornwall Hospitals and Duchy Ramsay Health between 01/01/2011 to 31/12/2025 were retrospectively analysed. Primary and revision procedures were linked using unique patient identifiers and laterality. Kaplan-Meier estimates, competing-risk analyses and multivariable Cox models assessed revision outcomes, accounting for mortality and relevant covariates.

Results

13,455 extracted records were identified. Following exclusion due to missing identifiers, duplicates, non-bicondylar procedures and incomplete implant information, 9,193 primary total knee replacements remained., among which, 1,365 used the Zimmer NexGen Legacy Posterior Stabilised (LPS) Option construct. There were 156 first qualifying revisions overall, including 56 in this cohort. Six-year death-censored all-cause revision estimates were 3.24% for NexGen LPS Option versus 1.24% for other constructs. The adjusted all-cause revision hazard ratio was 2.89 (95% confidence interval 2.08 to 4.03). Aseptic tibial loosening accounted for 26 of the 56 NexGen LPS Option revisions, with an adjusted cause-specific hazard ratio of 4.51 (95% confidence interval 2.57 to 7.92). Patients younger than 65 years at implantation had a ten-year cumulative incidence of all-cause revision of 11.55%, compared with 2.04% in those aged 75 years or older. Twenty-two of 56 revisions (39.3%) occurred more than five years after implantation.

Conclusion

Locally, LPS Option was associated with increased all-cause revision and aseptic tibial loosening compared with other bicondylar constructs. Younger patients had greater observed revision risk, and failures continued beyond five years. These findings may warrant local governance review and consideration of targeted, symptom-informed longer-term follow-up.

HIGHBUSH BLUEBERRY SUPPLEMENTATION FOR OSTEOARTHRITIS PAIN, INTRA-ARTICULAR INFLAMMATION AND POSTOPERATIVE RECOVERY IN TOTAL KNEE REPLACEMENT PATIENTS

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Institutions: University of Exeter, Royal Devon and Exeter Hospital

Aims

Intra-articular inflammation contributes to knee osteoarthritis (OA) progression and to poor recovery after total knee replacement (TKR). Blueberries are rich in anti-inflammatory polyphenols. We assessed whether blueberry supplementation influences joint tissue inflammation, symptoms and postoperative recovery in patients undergoing TKR.

Methods

In this double-blind, randomised, placebo-controlled trial, 61 patients listed for TKR for OA received highbush blueberry (*Vaccinium corymbosum*) powder (approximately 480 mg anthocyanins per day; n = 32) or a matched placebo (n = 29) for six weeks before and after surgery. Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) scores and daily analgesic use were recorded and analysed with mixed-effects models. Synovial fluid, synovium, infrapatellar fat pad (IFP), cartilage and subchondral bone were collected intraoperatively for quantitative PCR of 50 OA-related genes, multiplex immunoassay, and tandem mass tag proteomics of synovium and IFP (n = 30) with pathway analysis.

Results

From week three, WOMAC function improved faster with blueberry than placebo (0.69 points per week; p = 0.041). Pain and stiffness did not differ. Weighted analgesic use was lower in the blueberry group during postoperative weeks four to six (p = 0.014). Blueberry was associated with lower CX3CL1 and apolipoprotein E expression in subchondral bone, higher interferon-gamma expression in IFP, and lower synovial fluid insulin (p = 0.048), with no serum differences. No individual protein differed after multiple testing correction, but 54 synovium and 199 IFP pathways differed (false discovery rate below 0.05). Complement, immunoregulatory, T-cell and B-cell receptor pathways were negatively enriched, whereas mitochondrial calcium transport, cristae formation and laminin interaction pathways were enriched.

Conclusion

Perioperative blueberry supplementation accelerated self-reported functional recovery after TKR and was associated with lower late postoperative analgesic use, accompanied by attenuated immune and enhanced mitochondrial pathway signatures within joint tissues. Larger trials with objective functional outcomes are warranted.

What factors are important to patients when considering a revision total knee replacement in a network model of care? An exploratory qualitative analysis

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Aims

Revision knee replacement carries significant implications for healthcare systems both clinically and financially. Rationalising revision knee replacement surgery in fewer, more experienced hospitals and their surgeons has the promise of reduced reoperation rates and lower costs. However, this may create additional logistic and financial challenges for patients. This study aimed to explore the factors important to patients in the decision-making process for revision knee replacement surgery in a regional network model of care.

Methods

An exploratory analysis was performed using semi structured interviews with 7 patients (median age 75 years: range 61 to 86) with experience of revision knee replacement either as a previous patient, family member or lay member of a research group. Interviews were audio-recorded, transcribed and de-identified and analysed using a descriptive thematic analysis.

Results

Four themes were important in participants' accounts: importance of returning to normality; faith in surgical expertise; travel for major surgery; travel for shorter hospital visits.

Conclusion

Our findings suggest that the theory of travelling further for better results is universally acknowledged by patients, but that age, mobility and dependency often place restrictions on accessibility. Utilising local services for shorter hospital visits before and after revision surgery is an attractive option for patients hoping to benefit from surgical expertise.

SESSION 2 ABSTRACTS: UPPER LIMB & TRAINING

CEMENTED VS. UNCEMENTED GLENOID COMPONENTS IN ANATOMIC TOTAL SHOULDER ARTHROPLASTY: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Aims

Failure of the glenoid component is a leading cause of revision surgery in anatomic total shoulder arthroplasty (TSA). It remains unclear whether modern uncemented glenoid components provide survivorship and complication profiles that are comparable to, or superior to cemented all-polyethylene designs. This review aims to synthesise the current evidence on this topic and evaluate outcomes associated with both types of implant.

Methods

A systematic search of PubMed and Embase (Ovid) was performed from 1 January 1990 to 23 August 2025 and reported in accordance with PRISMA. Eligible publications directly compared cemented and uncemented glenoid components in primary anatomic TSA. The primary outcome was all-cause revision. Secondary outcomes included radiolucent lines, functional outcome measures, and range of motion. Meta-analyses were performed using random-effects models, analysed separately by study design where data were available.

Results

Eleven publications met inclusion criteria (three national registry cohorts, five cohort studies, and three randomised controlled trials). Uncemented glenoid fixation was associated with a higher incidence of all-cause revision compared with cemented fixation (national registry cohorts: IRR 4.93, 95% CI 4.73–5.13, $I^2=0\%$, $\tau^2=0$; cohort studies: RR 3.04, 95% CI 2.06–4.46, $I^2=0\%$, $\tau^2=0$). Among the cohort studies, there were no significant differences in radiolucent lines (RR 0.41, 95% CI 0.10–1.63, $I^2=86.6\%$, $\tau^2=0.65$), functional outcome measures (ASES and Constant scores were comparable between fixation types, with no statistically significant differences identified), or range of motion (forward flexion: MD = 8.58°, 95% CI –37.11 to 54.26, $I^2=0\%$, $\tau^2=0$; external rotation: MD = 12.34°, 95% CI –108.35 to 133.04, $I^2=89.3\%$, $\tau^2=161.24$).

Conclusion

Cemented polyethylene glenoid components demonstrate significantly lower all-cause revision rates than uncemented metal-backed components in anatomic TSA. Radiolucent lines are more prevalent with cemented fixation but do not compromise short to mid-term clinical outcomes. Functional outcomes and range of motion are comparable between fixation types.

Outcomes of a UK Day-Case Shoulder Arthroplasty Pathway: Safety, Patient Satisfaction and Cost-Saving Analysis

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Institutions: University Hospitals Plymouth NHS Trust, Royal Cornwall Hospitals NHS Trust, Leeds General Infirmary, University of Leeds

Aims

Elective shoulder arthroplasty waiting list times are increasing. Day case shoulder arthroplasty (DCSA) could address this. This study reviews the safety, cost-savings and patient satisfaction of a DCSA pathway introduced in May 2021.

Methods

All elective shoulder arthroplasties over three-years(May 2021–2024) at a single centre were prospectively collected and retrospectively analysed. Two cohorts were compared: DCSA and inpatient. Primary outcomes were 90-day readmission and complication rates. Secondary outcomes included estimated cost savings and patient satisfaction using a locally developed non-validated questionnaire.

Results

Of 102 shoulder arthroplasties, 25 were DCSA and 77 inpatients. DCSA patients were significantly younger(mean age 64.8 vs 73.6 years; $p < .001$), and more likely to have ASA I status(16% vs 6%; OR 2.74, 95% CI 0.68–11.14; $p = .04$). There were no significant differences in 90-day complications(4% vs 9%; OR 0.42, 95% CI 0.05–3.56; $p = .42$) or readmissions(0% vs 2%; OR 0.42, 95% CI 0.05–3.56; $p = 1.00$). All DCSA patients reported treatment success and were six times more likely to recommend it. Estimated cost-savings were £10,262.75, with £37,766.92 potentially saved if all patients had undergone DCSA.

Conclusion

DCSA is safe, cost-saving, with high patient satisfaction. DCSA could be more widely adopted across the UK.

ULTRASOUND AND MRI ACCURACY COMPARED WITH INTRAOPERATIVE FINDINGS IN ROTATOR CUFF SURGERY: A RETROSPECTIVE AUDIT

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Institutions: Royal Cornwall Hospital Trust

Aims

To assess the diagnostic accuracy of pre-operative ultrasound (US) and magnetic resonance imaging (MRI) against intra-operative findings in rotator cuff surgery, and compare treatment timelines between elective and fracture clinic pathways.

Methods

A retrospective audit of rotator cuff surgery between July 2024 and June 2025 was conducted. Of 116 patients identified, nine were excluded: four due to unavailable imaging on PACS and five due to insufficient operative note detail. The final cohort comprised 107 patients: 106 underwent US, including 15 who also underwent MRI, and one underwent MRI alone. Imaging findings were categorised as partial-thickness tear, full-thickness tear or no tear.

Results

Of 106 patients undergoing US, 59 (55.7%) had concordant findings and 47 (44.3%) had discordant findings. US misclassified 17 partial-thickness tears as full-thickness and 17 full-thickness tears as partial-thickness. Intra-operatively, no tear was identified in seven patients despite US reporting a tear (four full-thickness, three partial-thickness). Conversely, US reported no tear in six patients, although intra-operative assessment identified four full-thickness and two partial-thickness tears.

Of 16 patients undergoing MRI, 13 (81.3%) had concordant findings. Three scans were discordant: one reported a full-thickness tear where no tear was identified, one reported a full-thickness tear where a partial-thickness tear was found, and one reported a partial-thickness tear where no tear was found. Among six patients with discordant US findings who subsequently underwent MRI, one also had discordant MRI findings.

Mean referral-to-first-appointment times were 141.3 days for fracture clinic and 174.4 days for elective patients. Mean first-appointment-to-US intervals were 14.0 and -12.3 days, respectively, reflecting pre-clinic imaging in elective patients. Mean first-appointment-to-surgery intervals were 171.7 days for fracture clinic and 386.6 days for elective patients.

Conclusion

MRI showed greater concordance with intra-operative findings than US, although the MRI cohort was small. Fracture clinic pathways were associated with shorter intervals to surgery.

PECTORALIS MAJOR TENDON REPAIRS IN MILITARY PERSONNEL - RECOVERY TIMINGS AND FUNCTIONAL OUTCOMES

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Institutions: University Hospitals Plymouth NHS Trust, Commando Training Centre Royal Marines Lympstone

Aims

Pectoralis major tendon rupture affects young, active individuals and can impact on military training and occupational function. This study evaluated return to training or military role and functional outcomes following surgical repair in British military patients.

Methods

This retrospective review identified military patients who underwent pectoralis major tendon repair at University Hospitals Plymouth and Royal Devon and Exeter Hospital between May 2013 and July 2026. Demographics, injury mechanisms, surgical management and documented complications were reviewed. Outcomes included time to return to training or military role and the Quick Disabilities of the Arm, Shoulder and Hand (QuickDASH) score collected at telephone follow-up.

Results

Forty-seven males underwent repair, with a mean age of 28.3 years (range 20 to 52). Tarzan course cargo net injuries accounted for 32 cases (68.1%) and weight training for 10 (21.3%). Median time from injury to surgery was two weeks (range 1 to 40). All repairs used two or three cortical buttons. Return status was available for 32 patients. 27 (84.4%) return to training or military role, four (12.5%) were medically discharged and one (3.1%) remains in rehabilitation. Median time to return to training or role was 8.5 months (interquartile range 6.7 to 11.1). QuickDASH scores were available for 26 patients, with a median of 0 (interquartile range 0 to 7). Median time to final telephone follow-up was 3.7 years.

Conclusion

Pectoralis major tendon repair was associated with high rates of return to training or military role, with good functional scores at telephone follow up. The study reports good recovery in a physically demanding population, while highlighting the prolonged rehabilitation required.

Evaluation of the PROMIS Function and Pain Measures Against the Oxford Elbow Score in lateral epicondylitis.

Authors: W. Naylor, C. Jenvey, S. Gallacher, W. Thomas, C. Smith, J. Evans

Institutions: University of Exeter, Royal Devon University Healthcare NHS Foundation Trust

Aims

The Patient-Reported Outcome Measurement Information System (PROMIS) is a suite of domain specific measures that utilise state-of-the-science psychometric design, this study explores the upper extremity function and pain interference performance characteristics against a commonly used outcome measure in patients with lateral epicondylitis.

Methods

A retrospective analysis of outcomes from all patients presenting with lateral epicondylitis at a single institution was undertaken. Matched pre and postoperative PROMIS Upper Extremity (UE), Pain Interference (PI) short forms and Oxford Elbow Scores (OES) were retrieved. Instrument internal consistency (Chronbach's Alpha), construct validity (Spearman's rho), ceiling and floor effect was assessed for total and subscale scores. Exploratory Factor Analysis (EFA) assessing domain structure was performed on all instruments. Incomplete outcomes were excluded.

Results

140 sets of comparative outcomes were retrieved. No significant ceiling or floor effects were encountered from all PROMs. All measures and subscale scores were internally consistent (Cronbach's > 0.8). Construct validity correlations were adequate to strong for all domains. EFA confirmed single factor structure of both PROMIS and OES scores.

Conclusion

This is the largest analysis of modern psychometric outcome measures against legacy measures in a patients with lateral epicondylitis. Both the PROMIS UE and PROMIS PI scores are appropriate for use in this population.

OUTCOME OF TOTAL WRIST ARTHROPLASTY ALONE VS IN COMBINATION WITH OTHER PROCEDURES

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Institutions: Royal Devon and Exeter Hospital

Aims

Total wrist arthroplasty (TWA) is an effective treatment for wrist arthritis in a select patient population, with over 100 performed in the UK annually. A proportion of TWA patients have other hand pathologies requiring operations such as trapeziectomy, hence some TWA patients undergo additional procedures at the same time. We wanted to see if this affected their outcome, in terms of pain and function.

Methods

Data was collected on all TWA performed since 2019. Demographics including sex, age, laterality and concurrent procedures was recorded. Preoperative and postoperative outcome scores were collected to gauge pain and function. Scores used were the Patient rated wrist evaluation (PWRE), visual analogue score (VAS), modified Mayo score and quickDASH (Disabilities of the arm shoulder and hand) score. The data was analysed.

Results

There were 35 TWAs performed in 32 patients. Two patients had bilateral TWAs. There were two revision surgeries, one for a metacarpal fracture, and one from a different wrist prosthesis. These were excluded from the data set.

There was a female preponderance with 19 females and 13 males. There were 10 left and 19 right. The majority were TWAs alone, with only 6 combined procedures (21%).

Complete data for six TWAs showed the mean PWRE improved from 74 to 42.6 6-8 weeks postoperatively, and three combined procedures showed improvement from 72 to 30.5 postoperatively.

Conclusion

It seems those undergoing combined procedures do better than those undergoing a TWA alone. This maybe due to feeling more benefit due to having more pain/symptoms preoperatively. There are significant benefits in terms of efficiency; using one theatre slot and one set of follow up appointments. It is also time efficient for the patient. There was a significant amount of missing data which results in very small numbers, and ability to draw conclusions.

Exploring surgeon equipoise in reporting of orthopaedic randomised controlled trials comparing operative and non-operative interventions: a qualitative evidence synthesis

Authors: J Sheen

Institutions: University of Exeter

Aims

Clinical equipoise is central to the ethical justification and practical feasibility of randomised controlled trials (RCTs), yet little is known about how orthopaedic surgeons understand and enact equipoise in trials comparing operative and non-operative interventions. This qualitative evidence synthesis aims to explore how surgeons construct, negotiate and enact clinical equipoise, and how these processes influence trial recruitment and conduct.

Methods

A qualitative synthesis of qualitative evidence was undertaken. MEDLINE, EMBASE and Web of Science were searched from inception to February 2026, supplemented by backward and forward citation searching. Studies reporting qualitative data on orthopaedic surgeons' or recruiting clinicians' views, experiences or behaviours relating to equipoise or uncertainty within RCTs comparing operative and non-operative interventions were eligible. Data were coded inductively in NVivo 15 and synthesised using a thematic synthesis.

Results

Ten studies were included, comprising embedded qualitative studies of RCTs and feasibility or pilot studies. Three analytical themes were developed. First, clinical equipoise is constructed rather than possessed, with surgeons' perceptions of uncertainty shaped by clinical experience, professional beliefs, existing evidence, professional consensus and patient-specific considerations. Second, clinical equipoise is actively negotiated during patient recruitment, as surgeons balance their own views with patient preferences, communication of uncertainty and the need to maintain patient trust. Third, the enactment of clinical equipoise is shaped by organisational and professional context, including local treatment norms, staffing, time and resource constraints. These processes influenced recruitment decisions, treatment presentation and other aspects of trial conduct.

Conclusion

Clinical equipoise in orthopaedic RCTs comparing operative and non-operative interventions appears to be a dynamic process rather than a static state of mind possessed by individual surgeons. Surgeons continually construct, negotiate and enact uncertainty within patient, professional and organisational contexts. Recognising equipoise as a dynamic process may help explain variation in recruitment and trial conduct and inform working strategies to better support recruitment and the delivery of future surgical trials.

OPERATIVE EXPOSURE IN ORTHOPAEDIC TRAINING: A REGIONAL COHORT ANALYSIS

Authors: N. Crang, C. Brennan, B.P. Kent

Institutions: Peninsula Deanery

Aims

To describe first-surgeon operative exposure (both total exposure and arthroplasty exposure) in a regional orthopaedic trainee cohort and explore differences when comparing less than full-time (LTFT) status and gender.

Methods

Logged cases from six-month placement blocks between August 2025 and August 2026 were reviewed after being extracted from ISCP SAC reports. First-surgeon totals and major joint arthroplasty cases were summarised by placement. Less than full-time (LTFT) results were examined as recorded and after scaling each trainee's counts to a full-time equivalent (FTE). Two incomplete records were pro-rated to six months and included as full-time.

Results

The cohort comprised 22 trainees and 44 placements. Mean first-surgeon and major arthroplasty counts were 90.0 and 11.8 per placement. Raw LTFT placement averages were 84.7 and 10.2, compared with 92.2 and 12.4 for full-time placements. After FTE adjustment, mean trainee-level counts were 103.0 and 12.7 for LTFT trainees, compared with 93.3 and 12.4 for full-time trainees. After adjustment for FTE exposure, mean first-surgeon totals were similar by gender (97.1 in male and 94.1 in female trainees), while major arthroplasty averages were 14.3 and 6.3, respectively. After adjustment for arthroplasty job exposure (1 per year in males and 0.8 per year in females) major arthroplasty averages were 14.3 and 7.87.

Conclusion

In this cohort, lower raw operative counts among LTFT trainees were not seen after adjustment for working percentage. First-surgeon totals were similar by gender, while arthroplasty exposure differed significantly. These descriptive findings take place within a small snapshot of the data and 3 year rolling averages will help to more dynamically demonstrate trends within placements and the trainee cohort.

PERSIST – PARENTHOOD: EXPECTATIONS, REALITIES, SUPPORT AND IMPLICATIONS FOR SURGICAL TRAINING.
A Regional Survey

Authors: C Hunter

Institutions: Royal Devon University Healthcare Foundation Trust

Aims:

The 'Parents in Surgery' Report published by the Royal College of Surgeons of England in 2022 described severe systematic challenges facing surgeons with parental or caring responsibilities and recommended that training models and workforce policies be reformed to address these challenges. The aim of this project was to explore the impact of parenthood on surgical training currently in the South West, in order to identify areas for improvement within the School of Surgery.

Methods:

An electronic survey was circulated to surgical resident doctors in the South West via e-mail and social media and kept open for 30 days. Surgical resident doctors with experience of parenthood including family planning, pregnancy, pregnancy loss, adoption, infertility and fertility treatment were invited to complete the survey, which consisted of demographic questions, Likert scales and free-text responses. There were questions about attitudes to parenthood, less-than-full-time working and return-to-training after parental leave. Data were analysed using Microsoft tools and inductive thematic analysis.

Results:

There were 97 responses with an equal split between female and male respondents. The vast majority of respondents across twelve surgical specialties felt parenthood had a significant impact on training. Two thirds of respondents reported their own attitude to training had changed significantly, with more than one third considering leaving surgical training permanently as a direct result of parenthood. Key themes arising from free-text responses included cultural barriers, logistical challenges including childcare and frequent geographical relocation, inconsistent institutional support and the need for flexible working.

Conclusion:

These data demonstrate clearly that there are significant conflicts between contemporary family life and traditional surgical training. Although resident doctors generally report positive attitudes to parenthood, this is not consistently reflected in the wider surgical training pathway, and it is clear the School of Surgery must do more to ensure equitable training opportunities, institutional support and cultural change to maintain a diverse and sustainable surgical workforce in the South West.

ORTHO BRO: Opinions, peRceptions and THOughts of British Resident Doctors on Orthopaedics

Authors: S. Lochab, N. Nadeem, A. Dias, A. Cox, L. Tien, R. Yarlagadda

Institutions: University Hospitals Plymouth

Aims

Attracting a diverse workforce remains a challenge in orthopaedics and stereotypes about the specialty may deter applicants. We aimed to evaluate how UK resident doctors perceive orthopaedics, identify barriers to entry, and explore how gender and perceptions of culture shape interest in an orthopaedic career.

Methods

A cross-sectional online survey of UK resident doctors at foundation, core training and non-training grades captured demographics, Likert-scale views on inclusivity and work-life balance, career intentions and experiences of negative behaviours. Data were analysed descriptively with thematic analysis of free-text responses.

Results

In total, 371 doctors responded. Only 28% considered orthopaedics inclusive and 54% disagreed, a view consistent across training grades. Disagreement rose to 69% among those reporting negative behaviours (vs 38%). Work-life balance views were divided (38% agree, 31% disagree). Overall, 29% would consider an orthopaedic career (men 42%, women 19%). Interest was far higher among those viewing the specialty as inclusive (64% vs 16%) or offering good work-life balance (46% vs 18%). Overall 42% had experienced or witnessed negative behaviours, and a further 12% preferred not to say.

Word associations were dominated by “ortho bro”, lad culture, gym and sporting imagery (45%), mechanical “bones and hammers” (30%) and male dominance (15%). Perceived barriers centred on a male-dominated “boys’ club” culture (37%), competition for training posts (24%) and not “fitting in” (12%). Negative experiences most often described sexism (45%) and inappropriate comments or “banter” (27%), then bullying (19%).

Conclusion

Stereotypes surrounding orthopaedics still remain widespread among resident doctors and sexism as well as inappropriate behaviour continue to be experienced and witnessed within orthopaedic departments. Perceptions of inclusivity and work-life balance were closely linked to career interest, and negative behaviours may deter applicants. Meaningful cultural change is essential to ensure orthopaedics is a specialty in which all interested doctors feel they belong.

Communication in Theatres - C-arm Movement Terminology Among Orthopaedic Surgeons and Radiographers

Authors: A.E. Baker, S.A. Gatfield, L.P. Jones, S.A. Mccollam, T.M. Barton

Institutions: Torbay and South Devon NHS Foundation Trust, Royal United Hospitals Bath NHS Foundation Trust

Aims

Clear communication in the theatre environment is essential for safe and efficient use of intraoperative imaging. This project describes the terminology used by orthopaedic surgeons and radiographers for six C-arm movements, and explores perceived shared language, misunderstandings and support for standardisation.

Methods

Surgeons and theatre radiographers completed free-text questionnaires identifying terms for six illustrated C-arm movements and reporting perceived shared language, misunderstandings and support for standardisation. Data was analysed using Braun and Clarke's framework for thematic analysis. Terms were coded thematically by movement, and professional groups compared using Fisher's exact test with Holm correction.

Results

A total of 217 responses (103 surgeons, 114 radiographers) from 15 hospitals were analysed (Severn 153, Peninsula 64). Agreement was highest for vertical lift ("up/down", 90%) and lower for other movements. Common terms included "in/out" for horizontal travel (56%), rotation/swing verbs (52%) or AP/lateral view (46%) for orbital rotation. Swivel showed least commonality, one in eight respondents provided no verbal term or relied on colours or gestures. One in five reused the same word for two rotational movements. Radiographers used formal anatomical or radiographic terminology more than surgeons, including cranial/caudal for tilt (35% vs 7%) and AP/lateral views for rotation (64% vs 27%). Only 27% perceived shared language, 41% reported frequent misunderstandings and 68% favoured standardisation. Tone, patience and respect were cited by 43% of radiographers as factors affecting theatre communication.

Conclusion

Shared terminology was evident for only one of six movements. Overlapping terms and differing professional vocabularies may compromise clarity when precise, timely instructions are needed. Findings highlight that effective theatre communication depends on both agreed terminology and respectful, unambiguous interaction. Strong support for standardisation provides a basis for developing and evaluating a joint guideline, with the potential to reduce avoidable misunderstandings, strengthen professional relationships and support safe, efficient intraoperative imaging.

SESSION 3 ABSTRACTS: TRAUMA & INFECTION

DF2: EMBRACING A NEW MANAGEMENT OF PAEDIATRIC FEMORAL FRACTURES

Authors: O. Putt, K. Hogan, C. Edwards

Institutions: University Hospitals Plymouth NHS Trust

Aims

The aim of this project was to assess the current treatment pathway for paediatric diaphyseal fractures admitted to and treated at University Hospitals Plymouth.

Methods

All paediatric diaphyseal femoral fractures, aged 6 months to 5 years presenting to and treated at UHP between 01/06/2021 and 31/05/2026 were identified using electronic patient files. Patient demographics were collected. Admission statistics collected. Returns to theatre and complications identified.

Results

18 patients were identified. The average age of presentation was 2.48 years. The average inpatient admission was 2 days and 20 hours. The longest admission was 5 days and 21 hours. The shortest admission was 1 day and 1 hour. The total hospital bed utilisation was 51 days. The average anaesthetic and theatre time was 53 minutes. There was 1 return to theatre for exchange of spica due to soiling, no other complications were identified. All hip spicas were removed in fracture clinic.

Conclusion

Hip spica application in theatres is a resource intensive management protocol. Hospital admission also possibly has a psychological impact on patients and their carers. Evidence has shown that functional hip bracing is noninferior and cost effective in comparison to hip spica application in theatre. We propose a new treatment pathway with bracing.

FIRST TIME LATERAL PATELLAR DISLOCATION (FTLPD): A TWO-CYCLE AUDIT AGAINST THE 2024 BOAST

Authors: Jayson Roberts, Salih Al-Ani, Arjun Chakrapani, Charlie Hodges, Janetta Kiesel, Katherine Hatt, Johnny Sobotie, Abigail Wilson, Nathaniel Ahearn

Institutions: Torbay and South Devon NHS Foundation Trust

Aims

Compare local practice against the 2024 BOAST, followed by re-audit after local interventions.

Methods

Consecutive patients attending ED with patella dislocation were identified with keyword searches on Symphony. Clinic letters were checked on Infosys and Epic, as available. Interventions included implementing a new FTLPD management pathway on the OrthoPathway system, with a newly designed patient leaflet and self-referral codes for physiotherapy. The new BOAST guidance, pathway and leaflet were discussed virtually with the Torbay knee consultants and clinical directors for A&E, minors and MIU. Following these interventions, a reaudit was carried out on the same electronic systems.

Results

Of 180 patient visits from 03/24 - 01/25, 42 were identified as true FTLPD. The re-audit from 07/25 - 03/26 yielded 103 visits, of which 44 were FTLPDs. Median age in both cycles was 18.5 years, with M:F being 1.33 and 0.91 respectively. Skyline radiographs improved from 0 to 25%, advice to weight-bear went from 57% to 70%, physiotherapy assessment in under 3 weeks went from 2% to 21%. Knee clinic review in under 2 weeks fell from 55% to 39%. While offering additional FTLPD resources went from 10% to 29%, offering appropriate PIFU fell from 65% to 49%.

Extension bracing fell from 62% to 42%, while range-of-motion braces went up from 26% to 32%. Patients leaving without immobilisation went from 12% to 34%. Clinical documentation of recurrence risk factors improved across the board, and MRI requests fell from 50% to 34%, although all requests had valid indications as per BOAST.

Conclusion

Several recorded care measures improved following local interventions. Next steps will be integration of prompts into the EPIC system, investigation into increased time to clinic review, presentation of findings at A&E, T&O and MIU audit days, and lastly a re-audit focusing on differences between A&E, ED and MIU with initial management.

Management of Severely Unstable Ankle Fractures: An audit and re-audit of Treatment Timing, Complications and Service Implications.

Authors: D. Francis, R. Walter

Institutions: Royal Cornwall Hospital

Aims

To evaluate the management of severely unstable ankle fractures, assess compliance with NICE and BOAST recommendations for early fixation, and investigate complications associated with discharge while awaiting surgery.

Methods

A retrospective audit of unstable ankle fractures requiring operative management was undertaken at Royal Cornwall Hospital during 3–9 March 2025. Following the initial audit, departmental guidance was introduced recommending admission of all severely unstable ankle fractures. A re-audit in April 2026 identified 14 patients with severely unstable ankle fractures requiring open reduction and internal fixation (ORIF). Outcomes included admission status, time to surgery, loss of reduction, complications and additional interventions.

Results

In the initial audit, nine patients underwent procedures for unstable ankle fractures. Eight were discharged in plaster, and none underwent definitive fixation within the recommended timeframe. Seven patients (78%) experienced significant displacement, resulting in additional interventions.

In the April 2026 re-audit, six of 14 patients were admitted until surgery, with five undergoing surgery on day one. No complications were recorded in admitted patients. Of the eight discharged patients, four (50%) experienced significant complications: two required additional manipulation under anaesthesia (MUA), one required a hindfoot nail following loss of reduction, and one required readmission for external fixation due to skin compromise and subsequent transfer for orthoplastic management. Five patients (35%) underwent surgery within the recommended timeframe. The average time to theatre for discharged patients was 10 days.

Conclusion

Despite departmental guidance recommending admission of severely unstable ankle fractures, complications remained frequent among patients discharged while awaiting surgery. Half of discharged patients experienced significant complications, compared with none of those admitted until surgery. Compliance with recommended surgical timings improved but remained suboptimal. These findings support consideration of routine admission and prioritisation of early fixation to reduce complications and additional procedures. A systematic review is now underway to evaluate the cost-effectiveness of early versus delayed fixation and inform future service planning.

CLINICAL AUDIT OF PERIPROSTHETIC FEMORAL FRACTURE IN NORTH DEVON DISTRICT HOSPITAL: A 4-YEAR RETROSPECTIVE STUDY

Authors: S.M.T. Tun, M. Nkala, C.K. Chuen, A. Arslanagic, L. Brunton

Institutions: North Devon District Hospital

Aims

Periprosthetic femoral fractures (PPFFs) are increasingly common with an ageing population and rising numbers of hip and knee arthroplasty. This audit evaluates surgical outcome, perioperative management, and mortality following PPFFs at North Devon District Hospital from 2022–2025, comparing outcome with the initial audit cycle (2020–2021) and national data.

Methods

A retrospective audit was undertaken of all patients presenting with PPFFs between January 2022 and September 2025. Data were obtained from the National Hip Fracture Database and electronic medical records. Variables included demographics, fracture classification, surgical management, complications, mortality, and length of stay.

Results

A total of 106 patients were identified. Type B fractures around the hip were most common (38%) and were managed with fracture fixation (73%) or revision arthroplasty (7%). The proportion of patients aged >90 years increased from 13.2% in the previous audit cycle to 22%. Intraoperative cell salvage use increased from 36% to 50%, alongside reduced requirements for allogeneic blood transfusion, lower postoperative anaemia, and shorter hospital stay. 30-day and 90-day mortality also improved, from 8.3% to 6% and 12.5% to 9%, respectively.

Conclusion

PPFFs continue to be associated with substantial morbidity and mortality. Fracture fixation is increasingly favoured over revision arthroplasty, consistent with national and international trends. Increased use of intraoperative cell salvage reflects improved perioperative blood management and may have contributed to improved postoperative outcome.

MID-TERM PATIENT-REPORTED OUTCOMES AFTER TERRIBLE TRIAD INJURY: A PROM-BASED ANALYSIS OF ASSOCIATIONS WITH POOR RECOVERY

Authors: W. Fordyce, J.P. Evans, P. Guyver

Institutions: University Hospitals Plymouth NHS Trust, University of Exeter, Royal Devon University Healthcare NHS Trust

Aims

Terrible triad injuries of the elbow remain challenging despite advances in surgical strategy and rehabilitation. While technical principles are well established, less is known about patient- and injury-related factors that influence longer term recovery.

Methods

A retrospective cohort of patients with terrible triad injuries treated at a major trauma centre was evaluated at a minimum of 12 months postoperatively. All procedures were performed by three specialist elbow surgeons using a unified modified Wrightington posterior approach and standardised rehabilitation protocol. Patient-reported outcome measures (PROMs) included the Single Assessment Numeric Evaluation (SANE), Oxford Elbow Score (OES), QuickDASH, and Summary Outcome Determination (SOD). Associations between outcomes and demographic or injury variables were explored descriptively.

Results

Twenty-five patients (mean age 42.6 years) were followed for a mean of 4.4 years. PROMs demonstrated substantial residual functional impairment across the cohort. Dominant-limb injuries were associated with consistently worse outcomes across SANE, OES, QuickDASH and SOD scores. Delayed surgical intervention correlated with poorer long-term results, particularly in patients treated more than two weeks after injury. Female sex was associated with lower scores across all PROMs and greater variability in reported function. Age had only a modest effect, evident primarily in the QuickDASH, and mechanism of injury showed no clear association with outcome.

Conclusion

Despite standardised, contemporary management, terrible triad injuries remain associated with significant long-term morbidity. Dominant-limb involvement, delayed surgery and female sex were found to be strongly associated with poorer patient-reported outcome. Early specialist intervention and recognition of higher-risk subgroups may support improved shared-decision making and targeted rehabilitation.

Quality of Life after Future Health Africa Orthopaedic Charity Camps in Kenya. A Prospective Case Series

Authors: M. How Saw Keng, W. Jewell, D. Munn, E. Scarth, C. McAllen,

Institutions: Torbay South Devon NHS Foundation Trust Hospital, Royal Cornwall Hospital NHS Trust, University Hospital Plymouth NHS Trust

Aims

To describe the case mix at four orthopaedic charity camps in Kenya and measure the change in quality of life after surgery.

Methods

A prospective case series of patients operated on at four camps in three Kenyan hospitals between 2024 and 2025. Patients completed the EQ 5D 5L before surgery and at follow up. Scores before and after surgery were compared, and outcomes between patient groups were compared after adjusting for baseline score.

Results

A total of 119 patients underwent surgery (mean age 39 years). Around 40% presented with acute trauma, mostly tibial and femoral fractures. The remainder had complications of previous trauma or treatment, infection, arthritis or deformity. Paired EQ 5D data were available for 83 patients at a median of 6 months. The mean EQ 5D index rose from 0.37 to 0.76 ($p < 0.001$) and self rated health from 63 to 85 out of 100. Over three quarters of patients improved by a clinically important amount, with marked reductions in severe pain and mobility problems. All groups improved, with the greatest gains after fracture fixation and the smallest after fusion for arthritis.

Conclusion

Orthopaedic charity camps in Kenya treat a large burden of trauma and its neglected consequences, and patients report substantial improvements in quality of life. Routine outcome measurement is feasible and should be built into future camps.

Pathway delays and readmission predictors in inpatient diabetic foot disease: a single-centre quality improvement project

Authors: A Bonandi, N Rolf, C Brennan, T Ball

Institutions: Torbay and South Devon NHS Foundation Trust

Aims

Diabetic foot disease is the leading cause of diabetes-related hospitalisation in the UK and carries high rates of amputation, re-operation and re-admission. Patient-level predictors of poor outcome remain poorly defined. We aimed to characterise the inpatient pathway to identify predictors of re-admission and re-operation.

Methods

Single-centre retrospective review of 30 diabetic foot admissions between February and October 2025. Data captured included demographics, comorbidities, investigation/referral timestamps, operative detail, treatment and three-month outcomes. Statistical analysis was done using Fisher's exact test, Mann-Whitney U and Spearman correlation. Risk ratios (RR) were calculated for the primary outcomes of re-admission and re-operation.

Results

Most patients were admitted under orthopaedics (73%) via ED (63%). Median age was 68 years (80% male). 82% of patients had T2DM, and 67% had peripheral vascular disease. 24 patients (80%) underwent amputation, of which 4 were major amputations. 9 patients (30%) had a vascular intervention during admission. 9 patients (30%) were re-admitted within three months and 14/30 (47%) required re-operation.

Patients admitted under medical specialties (8/30, 27%) had delays at every early-pathway step versus orthopaedic admission. T+O referral (19.9h versus 3.2h, $p<0.001$), T+O review (28.6h versus 4.9h, $p<0.001$) and MRI request (25.3h versus 11.2h, $p=0.034$); downstream timings normalised once T+O involved.

Chronic kidney disease (CKD) combined with obesity was associated with highest readmission rates (6/7, 86% versus 3/23, 13%; RR 6.57, $p=0.0009$). Earlier vascular referral correlated with fewer reoperations (Spearman $\rho +0.78$, $p=0.0004$), independent of comorbidity, severity and admitting specialty. Longer IV antibiotic courses trended toward lower readmission (RR 0.38), suggesting a possible false economy in shortening therapy.

Conclusions

Medically admitted patients are at risk of pathway delays in diabetic foot infection management. Foot examination with a validated scoring tool (i.e. SINBAD) should be mandatory in any diabetic admission with suspected infection regardless of admitting team. Early vascular assessment and investigation are critical. Larger multi-centre datasets are needed to validate patient-level risk phenotypes.

SINGLE-STAGE BONE-PRESERVING TREATMENT OF CALCANEAL OSTEOMYELITIS WITH AN ANTIBIOTIC-LOADED BIOCOMPOSITE: A PROSPECTIVE CASE SERIES

Authors: P. Naginetti, J. Walmsley, T. Mohideen, M. Allen, D. Manners, D. Mittapalli

Institutions: University Hospitals Plymouth NHS Trust, Royal Cornwall Hospital Trust

Aims

Calcaneal osteomyelitis beneath chronic heel ulceration threatens the limb in patients with diabetes and peripheral arterial disease (PAD). Impaired perfusion limits systemic antibiotic delivery. Recurrence after debridement approaches 30%, and radical resection compromises hindfoot function. We report outcomes of single-stage, antibiotic-loaded calcium sulphate and hydroxyapatite biocomposite (Cerament G or V) application in this high-risk group.

Methods

A prospective single-centre case series was conducted between January 2022 and July 2024. Consecutive patients with refractory heel ulcers (over 15 square centimetres, persisting over four weeks despite antibiotics and/or debridement) and radiologically/microbiologically confirmed calcaneal osteomyelitis were included. Patients underwent debridement with deep tissue sampling, followed by injection of gentamicin- or vancomycin-loaded biocomposite into tracts drilled into the calcaneal body (modified Silo technique), guided by culture. The primary outcome was ulcer improvement at six weeks. Secondary outcomes included repeat surgery, major amputation, further antibiotic therapy, mobility and mortality.

Results

Twenty patients were analysed (median age 76 years, range 49 to 87; 70% male). Ninety per cent were diabetic, 75% had PAD, 55% were revascularised before surgery and all were American Society of Anesthesiologists grade 3 or 4. At six weeks, 14 ulcers (70%) had improved, with a 28.6% reduction in median wound surface area; four patients (20%) required repeat application of cerament. At a median follow-up of nine months, 14 patients (70%) had healed or healing ulcers, four (20%) had undergone major amputation and 13 (65%) required no further antibiotics. Independent or aided walking increased from eight (40%) to 13 (65%) patients, and no patient's mobility declined. Ninety-day mortality was 15%, none were deemed procedure-related.

Conclusion

In heavily comorbid patients facing major amputation, single-stage local antibiotic delivery combined with debridement and revascularisation was associated with ulcer healing, limb salvage in most patients and preserved or improved mobility. Comparative studies are warranted.

A RE-AUDIT OF INFECTIONS IN SHOULDER ARTHROPLASTY IN PLYMOUTH

Authors: S. Miller, P Guyver

Institutions: University Hospitals Plymouth NHS Trust

Aims

A previous audit of 297 shoulder arthroplasty cases performed in Derriford between 2011 and 2021 reported an overall prosthetic joint infection (PJI) rate of 3.37%, with *Cutibacterium acnes* (*C. acnes*) implicated in 50% of infected cases. By January 2022, Duac gel (benzoyl peroxide and clindamycin), which has been shown to reduce *C. acnes* skin colonisation, had been introduced as standard preoperative care for elective shoulder arthroplasty in Plymouth. This re-audit aims to assess adherence to British Elbow and Shoulder Society (BESS) guidelines and evaluate PJI rates following shoulder arthroplasty across three Plymouth hospitals since January 2022.

Methods

A retrospective service evaluation identified all cases of shoulder PJI undergoing re-operation or revision surgery between 1st January 2022 - 30th June 2025 across three Plymouth hospitals. Cases were identified via an operative database search and arthroplasty multi-disciplinary team (MDT) minutes. Clinical management and microbiological data were analysed.

Results

A total of 380 shoulder arthroplasties were performed during the study period, with three cases of PJI (0.79%) since the introduction of Duac gel (2 elective, 1 trauma). *C. acnes* was isolated in two cases (67% infected; 0.53% total). All patients underwent an appropriate first stage of a planned two-stage revision. Oxford sampling was performed in two cases (67%). Tissue cultures yielded microorganism growth more frequently than fluid samples. Multidisciplinary discussion involving a microbiologist was documented in two cases (67%). All cases included extended cultures and tailored antibiotic therapy.

Conclusion

Despite increased surgical volume, the PJI rate declined compared with the previous audit, with *C. acnes* remaining the predominant pathogen. Although this reduction may reflect a benefit of preoperative Duac gel, the sample size is insufficient to establish statistical significance. Other contributing factors may include progression beyond the surgical learning curve and changes in the operating surgeons. Compliance with BESS guidelines remains high.

Pre-Operative Decolonisation and Suppression of MRSA and Post-Operative Infection in Elective Orthopaedic Surgery

Authors: J. Church-Martin, Z.A. Haider, Luke Brunton

Institutions: North Devon District Hospital

Aims

Surgical site infections (SSIs) increase patient morbidity, hospital admissions and healthcare costs. Pre-operative methicillin-resistant *Staphylococcus aureus* (MRSA) screening and decolonisation may help reduce infection risk. This audit evaluated a snapshot of SSI rates, adherence to MRSA screening and decolonisation protocols as per GIRFT guidance August 2025, and associated costs in elective orthopaedic surgery at North Devon District Hospital.

Methods

A retrospective audit was conducted involving 125 adult patients undergoing elective orthopaedic procedures between 27 August and 29 September 2025. Data were collected from electronic patient records, including MRSA screening, documented decolonisation, post-operative complications within six weeks, and treatment costs.

Results

Of 125 patients, 99 underwent procedures involving implantable devices. Six patients developed documented post-operative infections, giving an overall SSI rate of 4.8%. Infection rates were 4.44% (2/45) following total knee replacement and 0% (0/33) following total hip replacement. Two patients required hospital readmission and intravenous antibiotics, while four received oral antibiotics. Pre-operative MRSA screening was documented in 108 patients (86.4%); all remaining patients had screening within three months before or on the day of admission. Documented adherence to the decolonisation protocol was initially 52% (65/125), increasing to 62.4% (78/125) following additional information from the pre-assessment team. Patient adherence could not be assessed because it was not routinely documented. The estimated cost of decolonisation was £579.50–£686.86 over the audit period, excluding MRSA screening costs.

Conclusion

MRSA screening was undertaken in all patients, although the timing of screening may limit opportunities for pre-operative decolonisation. Documentation and delivery of suppression protocols were inconsistent, partly because some records were maintained outside the electronic system. Clearer guidance on decolonisation eligibility, standardised documentation and prospective re-audit are recommended. The small sample size and potential under-reporting of infections limit interpretation of the observed SSI rate.