performing quality audit, and all institutions should assess the quality of their own audit practice.

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0652: THE INCIDENCE OF HYponatraemia AFTER ELECTIVE ORTHOPAEDIC SURGERY IN A DISTRICT GENERAL HOSPITAL

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Aim: To determine the incidence of hyponatraemia in elective orthopaedic surgery in a district general hospital (DGH)

Method: Discharge summaries of patients undergoing elective total hip (THR) and total knee (TKR) replacements at a DGH between 21/09/2015 and 04/11/2015 were reviewed. Pre-operative and day 2 post-operative sodium was noted. Discharge summaries were examined for presence of common medications associated with hyponatraemia (diuretics, proton pump inhibitors and angiotensin-converting enzyme inhibitors/angiotensin receptor blockers).

Result: 118 patients underwent elective THR or TKR during study period (mean age 68.5 years). Pre-operative sodium was not available for 3 patients, who were excluded. 52 patients underwent THR and 63 underwent TKR. Mean pre-operative sodium was 137.5 mmol/L dropping to 134.0 mmol/L post-operatively (−3.50 mmol/L, p<0.0001). 1.7% of patients were hyponatraemic pre-operatively. Post-operatively, this rose to 45.2%. Only 1 patient had severe hyponatraemia (sodium <125 mmol/L). 19 patients were on diuretics, 54 on a PPI and 33 on an ACE-i/ARB. ACE-i/ARB were the only drugs to have an impact on hyponatraemia (OR 2.89, p<0.05).

Conclusion: The incidence of hyponatraemia after elective THR/TKR was 43% (higher than reported value for general surgery). Even mild hyponatraemia has an impact on balance and mobility, hence the implications for orthopaedic surgery.

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0657: A SINGLE FEMORAL COMPONENT FOR ALL TOTAL HIP REPLACEMENTS PERFORMED BY A TRUST? DOES THIS AFFECT EARLY CLINICAL AND RADILOGICAL OUTCOMES?

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Hospitals may be forced to implement cost saving strategies. In arthroplasty this may involve the use of components which are not the first preference of individual consultants, or those they have little experience with. We aim to examine the effect of standardising the type of femoral stem used, particularly in those who have never used this stem before.

151 primary total hip arthroplasties were performed using a single femoral stem over 1 year. Data was split into 2 groups: those in which the operating surgeon was familiar with this stem, and those who were not. We report on radiological and clinical outcomes, complications, and overall construct survivability.

Stem survivorship was 100%, with no dislocations or revisions. No significant differences in clinical outcomes were observed. Cement grading showed a learning curve. Leg length inequality was significantly greater in those previously using the stem (+1.57mm vs 3.83mm).

Our findings suggest that radiographic and clinical outcomes are similar at 12 months even with no prior experience using this stem. Learning curves were observed although outcomes appear within safe ranges from the first few procedures. Hospitals may implement this type of policy with caution and there is a need for long-term follow up studies.

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0663: HIP AND KNEE IN GP: IMPROVING REFERRALS TO ORTHOPAEDICS – AN OBJECTIVE REVIEW OF A QUALITY IMPROVEMENT PROJECT IN PRIMARY CARE

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Aim: We conducted a quality improvement project aiming to reduce wasted orthopaedic, pre-op assessment clinic (POAC) and general practitioner (GP) appointments within a GP partnership in Wiltshire.

Method: Established quality improvement methodology, including process mapping, driver mapping and stakeholder analysis, was used to identify possible improvements to the current referral method.

Three approaches were selected

Create a data entry template with key preoperative parameters. Create an electronic preoperative summary that automatically populates from the patient’s record

Provide education for the referring GP regarding preoperative fitness

A scoring system was designed and used to assess referral letters on a monthly basis. This was plotted on a statistical process control chart to visualise the data trend.

Result: Prior to the development of the template, the mean referral score was 0.41. This rose to 0.78 following GP training and introduction of the template. After the intervention, there was a 15% decrease in the time from referral to surgery, with fewer GP and orthopaedic outpatient appointments.

Conclusion: Patients were previously ‘looping’ between POAC, orthopaedics and GPs, increasing the time until surgery. The approaches used in this project have led to reductions in waiting times, and appointments in both primary and secondary care.

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0702: PAEDIATRIC DIAphysEAL FOREARM FRACtURES: A RETROSPECtIVE ANALYsIs OF tREATMENT MODALITIES AND OUtCOMeS


Through interrogation of a prospectively collected trauma database, we undertook a retrospective analysis of paediatric forearm diaphyseal fracture management in a major trauma centre. The aim of this study was to establish the optimal treatment modality for these fractures.

Paediatric patients (<16y) with forearm diaphyseal fractures were identified, clinical data was collected (demographics, complications, time-to-union and time-to-discharge amongst others) and radiographs analysed. 200 patients (mean age 7.1y, range 1-15y) were included. 137 (68.5%) underwent manipulation under anaesthesia (MUA), 23 (11.5%) open reduction internal fixation (ORIF), 22 (11.0%) elastic intramedullary nailing (EIN), 16 (8.0%) Kirschner-wire fixation and 2 (1.0%) underwent combination procedures. All fractures clinically united. Overall mean time to union was 4.56 weeks, similar across modalities. ORIF was associated with the highest complication rate (21.7%). MUA was associated with the highest incidence of residual malalignment (33.9%>10° angulation).

MUA was the most common treatment modality here. Associated residual malalignment may have a functional impact initially but is unlikely to be a long-term problem in the young patient capable of bony remodelling. Despite ORIF being associated with a high complication rate, the ability to achieve absolute anatomical reduction may be more beneficial in the older child.

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0713: EVALUATING THE ROLE OF ULTRASOUND IN A DIAGNOSTIC AND TREATMENT PATHWAY FOR SUSPECTED ULNAR COLLATERAL LIGAMENT INJURIES OF THE THUMB FROM ANALYSIS OF RESULTS IN A LARGE TERTIARY HAND UNIT

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Aim: This study assessed the diagnostic performance of ultrasound (US) in characterising ulnar collateral ligament (UCL) injuries to evaluate the supporting role it can play in determining which cases require surgery in this subgroup of hand injuries.

Method: Retrospective data was collected from the radiology information system on all US examinations of the thumb for suspected UCL injuries (Jan