

metatarsal slipper treatment group. A standardised treatment strategy supported by this review has been implemented in our institution.

#### 0374: ERAS REDUCES UNPLANNED OVERNIGHT STAY FOLLOWING ORTHOPAEDIC DAY CASE SURGERY

Anwen Williams\*, Andrew Miller, Awen Iorwerth, David Morgan. *Royal Glamorgan Hospital, Llantrisant, UK.*

**Introduction:** The aim of ERAS is to improve patient outcomes and reduce postoperative length of stay (LOS) as well as having the benefit of better utilising hospital resources. Unplanned overnight stay following day surgery is a problem not only financially but also reduces available elective beds the following day.

**Method:** We undertook a retrospective review of all adult patients admitted for day case procedures, in one DGH, who unexpectedly stayed overnight (LOS>0). The 6 months pre and post implementation of the ERAS program were compared.

**Results:** Pre-ERAS data showed 110 of the 2963 (3.3%) day case patients stayed overnight. Post-ERAS 54 of the 2864 (1.9%) of day case patients stayed overnight. Reasons for unexpected overnight delay were categorised; patient, surgical, administrative and no reason. Fishers Exact test showed that there was a significant difference ( $p<0.001$ ) in reduction of overnight stay in day case surgery following induction of ERAS.

**Conclusions:** It is well known that ERAS reduces LOS and improves outcomes. Simple interventions reduce unexpected overnight stay: pre-operative physiotherapy, discharging with functioning regional blocks and TTH analgesia prescribed on admission. The programme has reduced unplanned overnight stay by over 50%, saved an estimated £28,000 and prevented cancellation of >40 elective procedures.

#### 0394: CONTAMINATED ORTHOPAEDIC INSTRUMENT SETS: EFFECTS ON PATIENT CARE AND HOSPITAL COSTS

Nikki Green\*, Aloysius Mbako, Thittukattour Sudhakar. *Wrexham Maelor Hospital, Wales, UK.*

**Introduction:** The aim was to assess the effects of contaminated orthopaedic sets on patient care and theatres in our District General Hospital. Orthopaedic sets are on occasion found to have holes in the sterile packaging, potentially due to larger and heavier sets.

**Methods:** Data was prospectively collected for all trauma and elective orthopaedic operations over three months. Collected data included operation, set type, number of minutes delay, whether the patient was anaesthetised and the outcome of the operation.

**Results:** A total of 788 operations during the three months found 37 contaminated sets affecting 34 operations (4.3%). Of these operations 23 (67.6%) had spare sets available, 5 (14.7%) a set had to be loaned, 2 (5.8%) had to use alternative sets, 1 (2.9%) operation was delayed whilst waiting for the set to be autoclaved and 3 operations (8.8%) were cancelled. The majority (64%) of operations affected were hip or knee replacements. 17 patients were anaesthetised prior to finding a contaminated set however only 2 operations were delayed.

**Conclusions:** Contaminated orthopaedic sets affect patient care and hospital costs. This study potentially reveals a nationwide problem which needs addressing. Sterile metal cases may need to be considered as an alternative to sterile coverings.

#### 0413: FACTORS AFFECTING BLOOD TRANSFUSION REQUIREMENTS IN PATIENTS UNDERGOING SURGICAL INTERVENTION FOR FRACTURES OF THE PROXIMAL FEMUR

Jacob Koris<sup>\*1</sup>, Paul Douglass<sup>2</sup>, Felix Allen<sup>3</sup>. <sup>1</sup>University Hospitals of Leicester NHS Trust, Leicestershire, UK; <sup>2</sup>Barnet & Chase Farm Hospitals NHS Trust, London, UK; <sup>3</sup>University College Hospital NHS Foundation Trust, London, UK.

**Introduction:** Blood loss is a common complication of hip fractures, and often requires treatment with blood transfusion. The aim of this study was to determine risk factors for transfusion in surgically managed hip fractures.

**Methods:** A retrospective study of patients with hip fractures operated on over three months was conducted ( $n=191$ ). Variables recorded included; demographics, fracture details, haemoglobin concentrations, operative details and transfusion information. The primary outcome measure was transfusion status; secondary outcome measures were intra-operative blood loss, and number of units transfused.

**Results:** Factors that significantly ( $p<0.05$ ) increased the likelihood of blood transfusion were; increased age (mean=84.35years vs. 81.63years),

lower pre-operative haemoglobin concentration (108.48g/L vs. 119.05g/L), and extra-capsular fractures (46.9% vs. 20.0%). A significantly ( $p<0.05$ ) increased intra-operative blood loss was associated with longer surgeries ( $R=0.16$ ) and treatment with IMHS rather than DHS or hemiarthroplasty (mean=30g/L vs. 16.9g/L vs. 19.7g/L). When treated, those managed with IMHS required significantly ( $p<0.05$ ) larger transfusions (mean=1.27units vs. 0.92units vs. 0.42units).

**Conclusions:** Patients who are likely to require a transfusion, or are at risk of increased intra-operative blood loss should be cross-matched early in order to minimize delay to treatment.

#### 0420: TRANSFUSION REQUIREMENTS IN HIP FRACTURE PATIENTS: DOES THE TYPE OF FRACTURE MATTER?

Rhys Morris<sup>\*1</sup>, Ulfyn Rethnam<sup>1</sup>, Bethan Russ<sup>2</sup>, Claire Topliss<sup>1</sup>. <sup>1</sup>Morrison hospital, Swansea, UK; <sup>2</sup>University of the West of England, Bristol, UK.

**Introduction:** Hip fractures in the elderly represent a major source of morbidity and mortality with allogeneic blood transfusions associated with increased mortality. This study assesses the blood transfusion requirements between the most common patterns of hip fracture i.e. intertrochanteric (IT) and intracapsular (IC).

**Methods:** A retrospective study of all of our patients entered on the National Hip Fracture Database over a 1-year period in a teaching hospital was performed. 561 patients were reviewed and following exclusion criteria, 475 were evaluated (198 IT, 277 IC). Baseline haematological parameters and blood transfusions were identified through the hospital systems. Analysis was performed in SPSS using both independent samples t-tests and chi-square tests.

**Results:** Patient groups were comparable for gender, anaesthetic type, ASA grade and mean values for cognitive score and coagulation parameters. A greater proportion of IT patients required a blood transfusion during their stay (39.4% vs 22.4%,  $p<0.001$ ), although the average number of units transfused per patient were equivalent (2.69 vs 2.44 units,  $p=0.293$ ).

**Conclusions:** Patients with IT hip fractures are significantly more likely to require a blood transfusion than those with IC hip fractures

#### 0421: LIMB LENGTH AND OFFSET AFTER TOTAL HIP ARTHROPLASTY: INCREASED ACCURACY WITH THE USE OF A CALIPER

Matthew Gray<sup>\*1</sup>, Jonathan Loughhead<sup>2</sup>. <sup>1</sup>Newcastle University, Newcastle Upon Tyne, UK; <sup>2</sup>Queen Elizabeth Hospital, Gateshead, UK.

**Introduction:** In the context of total hip arthroplasty (THA), we aimed to assess the utility of an intraoperative 'limb-length and offset caliper' (LLOC) in reducing the frequency of unacceptable ( $\geq 10$ mm) post-operative limb-length discrepancy (LLD) and offset discrepancy (OD).

**Methods:** The suitability of 123 post-THA radiographs was assessed. 82 met criteria for analysis and were assigned to a 'caliper-used' (CU;  $n=57$ ) or 'no-caliper-used' (NCU;  $n=25$ ) group. Analysis was undertaken with TraumaCAD<sup>®</sup> software. Radiographically normal unoperated hips were used as a control. The frequency of unacceptable ( $\geq 10$ mm) LLD and OD were compared between groups.

**Results:** Length: In the NCU group, 24% ( $n=6$ ) of hips demonstrated LLD  $\geq 10$ mm, compared with 7% ( $n=4$ ) in the CU group ( $p=0.04$ ). Offset: In the NCU group, 20% ( $n=5$ ) of hips demonstrated OD  $\geq 10$ mm, compared with 5% ( $n=3$ ) in the CU group ( $p=0.052$ ).

**Conclusions:** This study demonstrates a significant reduction in the frequency of unacceptable LLD (previously associated with adverse sequelae) when using the LLOC. A reduction in the frequency of unacceptable OD with LLOC use was also seen. Therefore, as a simple adjunct that is associated with minimal additional time and effort from the surgeon, we would advocate the routine use of the LLOC in THA.

#### 0443: EDUCATION GREATLY IMPROVES AMT SCORING IN PATIENTS WITH FRACTURED NECK OF FEMUR

Peter Davies\*, Duncan Hughes, Thomas Heseltine, Stephen Allsup, Ravindra Gudena. *St Helens and Knowsley NHS Trust, Merseyside, UK.*

**Introduction:** The best practice tariff (BPT) for fragility hip fracture applies to patients aged 60 years and over admitted with a fractured neck of femur (NOF). It awards £1335 per case provided several criteria are met including completion of pre and post-operative abbreviated mental test (AMT). Our fractured NOF pathway prompted AMT scoring, but was often ignored. This audit aimed to improve BPT compliance and patient care.