

digital templating for femoral stem offset and acetabular cup size with the actual size of implants inserted.

**Methods:** The methods of calibration studied were a standard 115% magnification and radio-opaque markers of a known size. All the x-rays were templated retrospectively and blindly. Study 1 looked at the fixed magnification method in 25 consecutive patients. Following the introduction of the radio-opaque marker we considered 24 patients who had a marker in their pre-operative x-ray. This comprised study 2. In study 3 we used the same patients from study 2 and compared the 115% magnification method to the radio-opaque marker results.

**Results:** In study one, 72% of patients had the same offset measured and 72% had the cup size measured accurately. In study two, 55% of patients had the same offset measured and 85% had an accurate cup size measured. In study three, 57% had the same offset measured and 62% had the acetabular cup component measured correctly.

**Conclusion:** Due to the inaccuracies demonstrated in digital templating, we recommend the use of intra-operative trialling as an adjunct when choosing implants in THA.

#### 0399: PATIENT PERSPECTIVE ON REGIONAL ANAESTHESIA OF UPPER LIMB SURGERY

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**Aims:** Brachial plexus block is the backbone of upper limb regional anaesthesia. The objectives of our study were to evaluate patients' perspective on regional anaesthesia in upper limb surgery and to determine the percentage who preferred it.

**Method:** We randomly selected forty two patients who had a regional anaesthesia for an upper limb elective surgery over a six months period. Data was gathered using a proforma during their hospital stay. Results were analysed using statistical tools.

**Results:** Twenty eight patients disliked regional anaesthesia and four preferred it over general anaesthesia. (66% vs 9.5%  $p = 0.014$ ). Ten patients were indifferent over the type of anaesthesia they received ( $p = 0.024$ ). Twelve patients thought it was distressing and painful and seven considered it as a bad experience. Out of the four who liked regional anaesthesia, two had severe co-morbidities which restricted them to have general anaesthesia, one thought it provided good pain relief and the fourth patient found it shortened the duration of hospital stay.

**Conclusion:** Majority of patients who underwent upper limb surgery did not prefer regional anaesthesia due to the distress and pain caused by the block. However many found it was a satisfactory mode of post-operative analgesia.

#### 0408: INVESTIGATION INTO THE OUTCOMES FOLLOWING FIXATION OF FRACTURED NECK OF FEMURS WITH CANNULATED HIP SCREWS

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**Aims:** To investigate which patients had received cannulated hip screws for a fractured neck of femur and identify: Which age groups were receiving this treatment. Functional outcomes following the surgery. Number of patients requiring a second operation

**Methods:** All patients were identified using the National Hip Fracture Database. All patients receiving a cannulated hip screw for a fractured neck of femur in the North Middlesex Hospital between July 2007 and August 2012 were identified. The hospital's computerised database was used to access clinical records.

**Results:** 48 patients were identified (21♂:27♀). The largest group of patients was those aged 80–89 years, 35.4%. Most patients coming from their own home/sheltered accommodation returned there after their operation, 97.7%. The majority of patients had their operation within 36 hours, 68.8%. 83.3% of patients had not had a further operation at the time of our study. One patient had their screws removed because of pain. Six patients (12.5%) required a conversion to a total hip replacement.

**Conclusions:** Our conversion rates compare favourably to those reported in the literature. Great consideration has to be given to the choice of patient undergoing this procedure due to the relatively high risk of requiring a second operation

#### 0413: FOREFOOT SURGERY AS A DAY CASE: COMPLIANCE OF SAME DAY DISCHARGE AND PATIENT SATISFACTION

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**Aim:** To evaluate the compliance with same day discharge, post operative pain and patient's satisfaction following forefoot surgery as day case.

**Method:** Prospective study of 35 patients who underwent various day case forefoot surgery between August to October 2012. Procedures were performed under general or spinal anaesthesia, by a single surgeon and ankle block was used. A standard discharge protocol was followed. Patient satisfaction was assessed using a standardised questionnaire in a 2 week follow up clinic.

**Results:** The study comprised of 6 males (18%) and 29 (82%) females, with a mean age of 54 (25–79) years. The surgical procedures included 1<sup>st</sup> ray surgery, excision of Morton's neuroma and lesser toes correction. 62% patient had surgery in morning operative list, 38% in the afternoon. 72% had more than one procedure. Nine patients (26%) required overnight stay. The most common reason was post-operative nausea and vomiting (4 patients, 11%) and pain (2 patients, 5%). Post-operative pain control was adequate in 97%. Overall patient satisfaction was 95%.

**Conclusion:** Forefoot surgery is safe and practical procedure for day surgery with an excellent patient satisfaction rate. Correct patient selection and appropriate anaesthetic protocol to address PONV will improve efficiency of discharge.

#### 0430: A CROSS SECTIONAL REVIEW OF THE INCIDENCE OF PHANTOM LIMB SENSATION IN A COHORT OF AMPUTEES AND THE EFFECT OF VISCERAL STIMULATION (MICTURITION/DEFECATION) ON SENSATION INTENSITY

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**Aim:** To assess the prevalence of phantom limb pain and the effect of visceral stimulation in a cohort of military amputees. A literature review identified just one case study in 2001<sup>(1)</sup>.

**Methods:** A cohort of 75 patients with a background of limb amputation completed a questionnaire including a pain visual analogue scale (VAS). Patients recorded the presence and intensity of phantom limb sensation. Secondary outcomes were alteration in sensation associated with a need to micturate, micturition, needing to open bowels and opening bowels.

**Results:** Participants reported phantom limb sensation prevalence of 86% with a mean VAS of 2.66 (SD 2.1). 81% of patients reported a change in the severity of phantom limb sensation with visceral stimuli. The mean change in VAS alteration of phantom limb sensation due to visceral stimulation was 1.32 for bladder stimulation and 1.06 for bowel stimulation ( $p$ -value 0.027). 65% of patients reported improvement over time. Only 36% reported an improvement of symptoms with neuropathic medications.

**Conclusion:** Phantom limb sensation and the effect of visceral stimulation is a greater problem faced by amputees than previously described. The use of pharmacological agents has no benefit to the majority of those questioned; however 65% of patients report improvement over time.

#### 0451: THE LатарJET PROCEDURE: A RELIABLE AND SAFE PROCEDURE FOR ANTERIOR SHOULDER DISLOCATIONS WITH ANTERIOR BONY GLENOID DEFICIENCY

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**Aims:** The Latarjet procedure was developed to prevent further dislocations through transplantation of the coracoid, creating a reinforcing tendinous sling and repairing the inferior ligamentous complex. This study aimed to assess the overall success of the Latarjet procedure in terms of recurrence of anterior instability and improving shoulder function in the presence of bony glenoid deficiency.

**Patients and Methods:** All patients that had undergone the Latarjet procedure between March 2011 and May 2012 were included. Indication for surgery was anterior-inferior bony glenoid deficiency. All procedures were performed by the senior author. The Oxford Shoulder Instability score, Oxford Shoulder score, Constant Shoulder score, Disabilities of the Arm Shoulder and Hand score and pain and satisfaction assessed outcome.

**Results:** There were 58 patients with a mean age of 25.68 years (range 18.17–44.05) and an average follow up period of 22 months. Recurrence of anterior instability was reported in one patient after a traumatic injury. Shoulder function and pain showed significant improvement in all outcome measures ( $p < 0.05$ ) and >95% of patients that were active sportsmen were able to return to sport.

**Conclusions:** The Latarjet procedure is an effective operation in treating anterior shoulder instability, reducing pain, improving function and aiding return to sports.

**0452: PATIENT SATISFACTION AUDIT COMPARING OPEN VERSUS MINIMALLY INVASIVE 1ST METATARSOPHALANGEAL JOINT (MTPJ) FUSION**  
Davinder Singh Bhachu, Saman Horriat, Paul Hamilton, Andrea Sott. *St Helier Hospital, Carshalton, Surrey, UK.*

**Introduction:** Fusion is a proven treatment for symptomatic osteoarthritis of the 1st metatarsophalangeal joint (MTPJ). With rising popularity of minimally invasive surgery (MIS), particularly in foot and ankle surgery, 1<sup>st</sup> MTPJ fusion is now being performed using MIS techniques. We assessed patient satisfaction in MIS fusion compared to patients who underwent open surgery.

**Method:** We assessed post-operation patient experience using a questionnaire containing six questions covering post-operative pain, swelling, mobility status, complications and patient satisfaction. Using our foot and ankle service database, we identified our cohort of patients who had 1<sup>st</sup> MTPJ fusion between 2009-2012, including 12 minimally invasive fusion and 12 open fusion.

**Results:** We were unable to demonstrate a statistically significant difference in "patient experience" between MIS and open 1st MTPJ fusion. The MIS fusion group however reported less immediate post-operative discomfort compared with the open fusion group. The MIS fusion patients were able to mobilise sooner without significant discomfort compared to the open surgery group.

**Conclusion:** Patient satisfaction in the MIS 1st MTPJ fusion group, if not superior appears to be comparable with those who underwent open surgery with the added advantage of shorter operating times, reduced hospital stay and decreased risk of surgical exposure related complications.

**0454: THE RECOVERY OF KNEE FUNCTION IN THE ISOLATED MCL AND COMBINED ACL-MCL DEFICIENT KNEE**

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**Aim:** To analyse recovery of knee motion and muscle function over one year in the isolated MCL and combined ACL-MCL deficient knee.

**Method:** Subjects included had either an isolated MCL (group I) or combined ACL-MCL injury (group II) seen at knee injury clinic between 2006-2010. Exclusion criteria included previous MCL injury, contralateral limb injury and presentation >2 weeks of injury. Patients were followed up at 2, 6, 12, 26, 52 weeks. A t-test was used to analyse data using Graphpad Prism.

**Results:** The cohort included 82 patients, mean age 32 (range 16-56), 54 males, 28 females. There was a statistically significant deficit in total range of movement (TROM) and flexion at 6 months ( $p < 0.05$ ) in group II. This resolved by 1 year. There was a significant extension deficit in Group II at 2 weeks ( $p < 0.05$ ). Peak torque deficit (PTD) improved for quadriceps and hamstrings across all intervals however this was not significant. There was no significance for average power deficit (APD) in hamstrings and quadriceps groups.

**Conclusions:** There is an increased TROM and flexion deficit at 6 months in group II subjects compared to group I. This resolved by 1 year follow up. There was no difference in PTD or APD in either group.

**0526: THE DISAPPEARING HUMERUS: THE EXPERIENCE OF A DGH IN TREATING PATHOLOGICAL HUMERAL FRACTURES USING THE T2 PROXIMAL HUMERAL NAIL**

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**Aim:** Skeletal metastasis occurs at an advanced stage of many cancers and lesions affecting the humerus account for between 16-39% of appendicular skeletal metastases. Patients with pathological fractures secondary to metastatic carcinoma have limited life expectancy. Operative intervention is focused on achieving immediate pain relief, increasing mobility and easing nursing care with minimal additional morbidity. The closed interlocking intramedullary humeral nailing is associated with minimal morbidity and low failure. The T2-proximal humeral nail (PHN) has been recently released and the literature lacks series evaluating its results.

**Method:** We are describing the case histories and imaging of seven cases of pathological fractures of the humerus treated using the T2(PHN) since January 2011.

**Results – Conclusions:** Long-term survival of patients after their first pathological fracture has tripled during the past 25 years, increasing the need for efficient surgical intervention. Our series show, that all patients gained short term pain relief, and the fixation, analgesic effects and positive functional outcome had long lasting effects even when the bone stock around the nail continued to be destroyed by the underlying disease process. T2(PHN) is a suitable treatment for pathological fractures of the humerus and has both short term and longer term benefits to patients.

**0541: THE AVOIDANCE OF RADIATION EXPOSURE BY FOLLOWING RCR GUIDELINES AND OTTAWA RULES IN PERFORMING ANKLE RADIOGRAPHS**

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**Background:** Ankle radiographs comprise 10% of radiographs obtained from the emergency department (ED). The Royal College of Radiologists (RCR) recommended ankle radiographs for trauma patients whose clinical features fulfil the Ottawa rules, which state that bony ankle injury is likely when tenderness over the posterior tip of either malleolus is present or if the patient is unable to weight bear. The guidelines were introduced to reduce inappropriate ankle radiographs and unjustified radiation exposure.

**Methods:** We assessed the appropriateness of ankle x-ray requests with respect to RCR recommendations and the Ottawa Rules. 200 consecutive traumatic ankle radiograph requests were reviewed with preset standards of 100%.

**Results:** 79% of requests emerged from the ED, 18% from general practice and 3% from other departments. 43% of requests did not meet RCR and Ottawa criteria with general practitioners and ED clinicians having 47% and 43% of inappropriate requests respectively.

**Conclusion:** A large proportion of ankle x-rays are inappropriately requested according to provided clinical information. We aim to improve clinical practice by emphasising RCR guidelines to respected clinicians through oral presentations, educative posters, algorithms and introduction of a proforma. Implemented interventions will be reviewed through a re-audit to confirm efficacy of introduced changes.

**0551: CASE SERIES DEMONSTRATING EARLY REHABILITATION AND RETURN TO NORMAL ACTIVITY WHEN RECONSTRUCTING EXTENSOR MECHANISM INJURIES IN THE KNEE USING NEOLIGAMENT™ POLYTAPE**

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**Introduction:** Reconstruction of the extensor mechanism in the knee using standard suture/cerclage techniques require rehabilitation commencing after a period of immobility and resultant stiffness. Polytape reconstructions in the shoulder and elbow have proven outcomes and quicker rehabilitation. Little evidence relates to the outcomes of Neoligament use in the knee.

**Aim:** Presenting a case series of our experience in reconstructing the extensor mechanism of the knee using a polytape Neoligaments™ we would like to demonstrate an accelerated functional recovery.

**Methods:** Prospective data was collected on patients whom underwent extensor mechanism reconstruction using Polytape from 2008-12. A Standardise surgical technique and rehabilitation protocols were used in all cases. All the patients were followed up clinically and outcome assessed using Oxford, Lysholm, Kujala and American knee society scores.

**Results:** 15 patients were identified during the study (11male:4female) with average age of 55 (32-79). Average follow up was 12months post surgery (2-36months). The group represents 10 patellar and 4 quadriceps ruptures with 1 patella fracture. One Patient suffered Re-rupture secondary to trauma with another experiencing superficial wound infection.

**Conclusion:** Neoligament Polytape is a very useful tool in reconstructing extensor mechanism injuries. It enables early mobilization and early return to work in younger patients.

**0553: FRACTURES OF THE DISTAL FEMUR: A RETROSPECTIVE CASE REVIEW**

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