

too (44%) although a significant proportion were performed at the regional orthopaedic specialist centre (36%). Position of instability is demonstrated by the mechanism of dislocation, flexion and extension injuries along with low impact falls made up the majority of causes (67%). In 62% of patients manipulation was performed the same day. 56% of cases were referred to the index surgeon or a revision surgeon so appropriate management could be instigated. 8 patients had a revision procedure at our centre following dislocation. There were no re-dislocations in the revisions.

**Conclusions:** Our centres dislocation rate is well within rates quoted by other papers and management of dislocations is satisfactory.

#### 0652: SERVICE STREAMLINING FOR ORTHOPAEDIC LODGED PATIENTS WITHIN A DISTRICT GENERAL HOSPITAL A+E

Jonathan Kent, William Manning, Fraser Gould, Matt Dawson. *Cumberland Infirmary Carlisle, Carlisle, UK.*

**Aim:** Lodged patients are referred directly to a speciality by primary care for emergency assessment, bypassing accident and emergency triage and assessment whilst still utilising their facilities and bed space. With increasing demands on services we aimed to assess the pathways taken by orthopaedic lodged patients and their impact on A+E to help to streamline our service.

**Methods:** Between Augusts 2011-12 a retrospective review of all orthopaedic lodged patients attending a district general A+E was undertaken. Cases were identified from HR coding and cross referenced against e-records for presentation, diagnosis, assessment time, imaging and destination.

**Results:** 313 lodged patients presented to A+E over the study period. The average time for assessment was 162mins, 8% breached 4 hours waiting in A+E. 53% patients were discharged direct from A+E, 43% admitted and 4% transferred to tertiary spinal centres. Assessing each case, 25% of presentations were over 72hrs old and new trauma accounted for 20%.

**Conclusions:** Robust referral pathways for common and delayed presentations could reduce inappropriate referral to the acute orthopaedic service by up to 30%. Increasing acceptance of patients into fracture clinic reduced inappropriate use of A+E space as-well-as reducing patient journeys to hospital for repeat assessments.

#### 0670: FACTORS INFLUENCING THE ACCURACY OF TEMPLATING IN TOTAL HIP ARTHROPLASTY

Andrew Riddick, Adam Smith, Phillip Thomas. *University Hospital of Wales, Cardiff, UK.*

**Aim:** To assess the accuracy of templating in a single surgeon, single implant practice, and investigate what factors influenced this accuracy.

**Methods:** Sixty-one consecutive patients who had undergone uncemented THA using a single implant (Profemur-Z) under the supervision of the senior author (DPT) over a 12 month period were identified from theatre list records. Patient demographics were collected from the National Joint Registry form. Pre- and post-operative radiographs were reviewed. The known size of the implanted acetabular cup was compared with the measured size on the radiograph. The magnification factor (MF) was calculated using the known size of the scaling ball ( $MF = \text{measured size}/30$ ).

**Results:** Based on the post-operative radiographs, the mean magnification factor was 127%. The cup size was within one size of the actual implant in 87% of cases and the femoral component in 92%.

**Conclusion:** The consistent magnification factor of the post operative radiographs would allow for accurate templating without the use of a scaling ball. There are no measurable variables which correlate with the accuracy of the pre-operative templating in THA. Further study is needed to determine whether an average value MF is constant across hospitals, and if this is more accurate than using a scaling ball.

#### 0671: USE OF WEIGHT RELIEVING SHOES IN FOREFOOT SURGERY

Ali Abdulkarim<sup>1</sup>, Gehad Mohamed<sup>2</sup>, Lester D'Suoza<sup>2</sup>. <sup>1</sup>Cappagh National Orthopaedic Hospital, Dublin, Ireland; <sup>2</sup>Mid-Western Regional Hospital, Limerick, Ireland.

**Aim:** to review our experience with the use of the heel bearing shoes for forefoot weight relief and evaluate its use & application in our daily forefoot surgical practice

**Method:** A retrospective review of all (341) patients who underwent reconstructive forefoot surgery in our unit.

**Results:** 258 procedures performed between January 2003 to February 2006 those patients used cast postoperatively (first group), while 83 procedures performed March 2006 to October 2007 where forefoot shoe postoperatively (second group). 51(19.77%) from the first group reported stiffness of toes at 6 weeks review whilst only 3(3.61%) out of the second group. 18 (6.98%) reported discomfort and stiffness of the hip from the first group in comparison to only 2(2.25%) patients in group two. From the first group 27(10.47%) reported knee stiffness while only one patient in the second group. The incidence of clinically significant low back pain was 12(4.65%) in the first group and 5(5.61%) patients in the second group.

**Conclusion:** Heel weight bearing shoes play an important role following reconstructive forefoot surgery; however some problems may be encountered during their use. Early physiotherapy is essential to avoid these problems.

#### 0672: VASCULAR INJURIES ASSOCIATED WITH TRAUMATIC BONE FRACTURES

Ali Abdulkarim<sup>1</sup>, Fergal Fleming<sup>3</sup>, Perice Grace<sup>3</sup>, Thomas Burke<sup>2</sup>. <sup>1</sup>Cappagh National Orthopaedic Hospital, Dublin, Ireland; <sup>2</sup>Department of Trauma, Mid-Western Regional Hospital, Limerick, Ireland; <sup>3</sup>Department of Vascular Surgery, Mid-Western Regional Hospital, Limerick, Ireland.

**Aim:** To determine the mechanisms of injury and evaluate the outcome of combined orthopaedic and vascular injuries.

**Method:** A retrospective review of all patients with vascular injury associated with limb bone fractures in 14 years period.

**Results:** Of 22,340 fractures treated during the 14 years period 18 patients sustained a vascular injury that required surgical intervention and form the basis of this review. Road traffic accidents accounted for 12 injuries (66%), other accidents 4(22%), iatrogenic injury 1(6%), and 1 gunshot injury (6%). Four patients had an associated nerve injury with varying severity. Skeletal fixation preceded vascular repair in most of the cases. The primary vascular procedures included end-to-end anastomosis 2(11%), bypass grafting 1(6%), interposition vein grafts 8(43%), vein patch 1(6%), direct arterial repair 2(11%), ligation 2(11%), primary amputation 1(6%), reposition of normal course of artery 1(6%). During a 17 months follow-up period, the upper and lower limb preservation rate was 100 and 89%, respectively. Nine patients (50%) were symptom free; three patients (16.6%) had a neurological deficit.

**Conclusion:** Vascular injury is uncommon in the orthopaedic patients. High suspicion and early intervention is essential to optimise outcome and function.

#### 0675: THE USE OF SHOE SIZE TO PREDICT COMPONENTS SIZE IN TOTAL KNEE ARTHROPLASTY

Ali Abdulkarim, Shane Brady, Samuel Chibuike, Michael Donnelly, Sean Dudeney. *Cappagh National Orthopaedic Hospital, Dublin, Ireland.*

**Aim:** to evaluate the accuracy of a patient's shoe size as a predictor of the implant components sizes in TKA.

**Methods:** A retrospective review was conducted to identify the correlation between patient's shoe size (British system) and the femoral and tibial component size for a group of patients underwent TKA in our hospital using the Triathlon TKA system.

Shoe size was obtained by telephone questionnaire. Tibial and femoral component sizes were obtained by review of operation notes and post operative radiographs to exclude over or undersized components. Age and gender of the patients was also recorded. Spearman's correlation test was used to assess for correlation between shoe size and component sizes.

**Results:** 300 patients were included in the study; Age range was 51-89 years at the time of surgery. We found a positive correlation between shoe size and both femoral and tibial components sizes ( $p < 0.001$ ).

**Conclusion:** Patient shoe size can be a simple and reliable option to predict the implant size in TKA, and can be used more efficiently preoperatively as an alternative for templating radiography.

#### 0676: CARPAL TUNNEL SYNDROME (CTS): ARE TOO MANY CASES UNNECESSARILY REFERRED TO SURGEONS?

Humza Osmani<sup>1</sup>, Simon Figa<sup>2</sup>, Stephanie Hall<sup>2</sup>. <sup>1</sup>North Middlesex University Hospital, London, UK; <sup>2</sup>Millway Medical Practice, London, UK.