Hipp fractures are a frequent event, with a lack of evidence as to how these patients are globally treated peri-operatively and a need exists to identify current management patterns. A UK web-based survey investigated the rationale of fixation of AO 3.1.A.1 and AO 3.1.A.3 fractures, post-operative X-rays, venous, VTE prophylaxis and follow up.

249 trainees responded. 98% chose a sliding hip screw for the AO 3.1.A.1 fracture. For the AO 3.1.A.3 fracture 95% chose an intra-medullary device. 24% of respondents selected the option most representative of current NICE guidelines for VTE prophylaxis. 79% requested post-operative X-rays and 87% outpatient follow up.

Trainees show compliance with published evidence in terms of their choice of fixation of the AO 3.1.A.1 fracture pattern. Fixation of the AO 3.1.A.3 fracture with an intra-medullary device is clearly common place, but the evidence to support this is currently not conclusive. Routine post-operative X-rays are not supported by the evidence and are unnecessary in terms of cost and radiation exposure. Routine outpatient follow up is an increased burden on finite resources.

This work is evidence of contemporary hip fracture peri-operative care and has implications in light of the growing burden of these injuries.

0494: THROMBOEMBOLIC PROPHYLAXIS IN ACUTE ACHILLES TENDON RUPTURE
Shan Shan Jing, Stephen Palmer, Michael Taylor. Broomfield Hospital, Chelmsford, UK

Aim: Current evidence for routine thromboprophylaxis in acute Achilles tendon (TA) ruptures is controversial and lacking. Rate of a venous thromboembolic event (VTE) reportedly varies between 6.3% - 34%. No national guidelines have been set specifically for this purpose. The aim of this audit is to assess the rate of VTEs and review the need for routine thromboprophylaxis for VTE at our local Orthopaedics Department with suggestions of a protocol of management.

Method: Retrospective review of patient demographics, management of acute TA rupture, follow up and rate of VTEs using case notes and imaging services for patients with acute TA rupture during May 2009 to October 2011.

Results: The rate of VTE in our case series of 76 patients was 6.6% (5/76) during the 30 months study period. 3 patients had distal DVT and 2 patients had non-fatality pulmonary embolism all within 3 months of TA rupture diagnoses. All patients had additional associated risks for thromboembolic events.

Conclusions: In view of the evidence, low incidence of VTE does not support the use of routine chemoprophylaxis. However, anticoagulation should be considered for patients who have additional factors contributing to VTEs in the setting of acute TA ruptures.

0508: AUDIT OF HANDOVER PRACTICE IN ORTHOPAEDICS AND TRAUMA – CAN IMPROVEMENTS BE MADE?
Abigail Clark-Morgan, Michael Glaszer, William Knight, Melanie Orchard, Timothy Kane. NHS, Salisbury District Hospital, UK

Aims: To assess the efficiency and safety of patient handover in a level 2 trauma centre with a catchment of 650,000 patients.

Method: A two week sample of handover sheets was compared to the national standards from the Royal College of Surgeons, England. These identify categories of handover information. Fifteen doctors (Foundation Year 1 to Core Surgical Trainee Year 2) collected whatever documentation for handover had been used. A template handover sheet was then created and our data presented at the multi-disciplinary departmental meeting. It was readily adopted as the working on-call list and three months later the audit cycle was completed.

Results: The initial audit revealed 54% of the minimum information was handed over. The re-audit showed this to be 90% and of all the points within the guideline, 66% were now being handed over - an increase of 36% and 27% respectively.

Conclusion: A clear need for improvement in handover practice has been fulfilled by the introduction of a simple, well designed template - demonstrating a safer and more complete handover practice. Shift patterns add to the challenge of handover and a system needs to be in place to accommodate this to optimise patient care.

0522: GENERAL PRACTITIONERS REQUESTS OF KNEE RADIOGRAPHS: WEIGHT BEARING VERSUS NON WEIGHT BEARING AP VIEWS
Malwattage Lara Tania Jayatilaka, Dominic C. Sprott, P. Hughes, Marcus Robert Cope. Southport District General Hospital, Southport, UK

Aim: To determine how many patients, with suspected osteoarthritis of the knee, were being referred to orthopaedic outpatient clinics from General Practitioner's with non-weight bearing AP knee radiographs, to determine the number of patients subsequently having repeat weight bearing AP knee radiographs and the financial cost.

Method: Prospectively over a two week period we reviewed the radiological investigations ordered prior to the consultation in orthopaedic outpatients.

Results: GP's referred 36 (87.8%) the remaining 5 (12.8%) were tibiotalar referrals. None of the GP referrals had weight bearing AP knee radiographs prior to the consultation. Half had non-weight bearing AP knee radiographs the remainder had no radiographs taken prior to referral. Weight bearing AP knee radiographs were ordered in clinic on 23 (63.9%) of the GP referred patients, of these 9 (25%) had previous non-weight bearing AP knee radiographs thus necessitating further radiation exposure and expense.

Conclusion: The additional cost for a single knee radiograph at our hospital is £30. If we extrapolate the 9 patients requiring repeat weight bearing AP knee radiographs in the study equates to £7,020 per annum. We suggest that all requests to the radiology department for knee radiographs from GP’s are standardised to be weight-bearing AP.

0541: AN AUDIT OF THE IMPACT OF PSYCHIATRIC ILLNESS OR INTOXICATION ON ORTHOPAEDIC MORBIDITY & COST
B. Ramasubbu, L. Moran, J.M. Cooney, P.P. Grieve. St James's Hospital, Dublin, Ireland

Aim: To assess the impact of psychiatric illness and/or intoxication on injury severity, duration and expense of hospital stay in orthopaedic patients.

Method: Orthopaedic admissions, for July 2011, from the Emergency Department at St James’s Hospital were reviewed. Patients were categorized into 4 groups. Group 1 (n=65). Control group - no psychiatric co-morbidities (and sober on admission). Group 2 (n=15). Patients with psychiatric co-morbidity. Group 3 (n=8). Patients in which their psychiatric co-morbidity directly caused injury. Group 4 (n=15). Patients in which intoxication (alcohol and/or drug) directly caused injury.

Results: In Comparison to Group 1: (per patient basis) Group 2: 3x longer average duration of hospital stay, Twice number of theatre procedures, Twice number of scans (XR, CT and MRI). Group 3: 6x higher average duration of stay, 3x number of theatre procedures, 2x number of scans, 3x number of Multi-Disciplinary team components.

Group 4: 3x longer average duration of stay, 2x number of scans, 1.5x number of MDT components. The average Injury Severity Score was highest in Group 3.

Conclusions: Psychiatric illness and substance abuse were associated with substantially greater orthopaedic morbidity, duration of stay and cost.

0612: AUDIT OF DABIGATRAN ETEXILATE FOR THE PREVENTION OF VENOUS THROMBOEMBOLISM AFTER ELECTIVE HIP AND KNEE SURGERY
Hannah Blanchford, Catherine Hooks, David Graham. Gateshead Hospital NHS Foundation Trust, Gateshead, UK

Aim: This audit assessed compliance with Gateshead Hospital NHS Foundation Trust guidelines on dabigatran for the prevention of venous thromboembolism (VTE) after elective total hip and knee replacement surgery.

Method: The notes of 62 patients who underwent elective hip and knee replacement surgery in June 2010 were retrospectively reviewed for compliance with trust VTE guidelines. Following implementation of recommendations for staff training, re-audit was performed in June 2011.

Results: 74% and 33% of patients received dabigatran whilst inpatients in 2010 and 2011 respectively. Re-audit demonstrated an improvement from 85% to 100% for patients receiving the correct post-operative dose of dabigatran. In both audits, half of patients received dabigatran within the 1-4 hour time frame after surgery. The percentage of patients not receiving any VTE prophylaxis on the day of surgery fell from 13% in 2010 to 6.6% in 2011.
Conclusions: We conclude that staff training about trust guidelines has reduced errors in the prescription and administration of dabigatran. Anticoagulation omission on the day of surgery has been halved. There has been a shift towards prescribing tinzaparin for inpatient VTE prophylaxis. Further recommendations to improve practice are necessary in order to reduce delays in receiving anticoagulation post-operatively.

0628: THE INTRODUCTION OF A MULTIDISCIPLINARY HIP FRACTURE PATHWAY CAN OPTIMISE PATIENT CARE AND REDUCE MORTALITY: A PROSPECTIVE AUDIT OF 161 PATIENTS

Michael Shenouda, Zacharia Silk, Sarkhell Radha, Emer Bouanem, Warwick Radford. Chelsea & Westminster Hospital, London, UK

Aim: A multidisciplinary hip fracture pathway was introduced in our institution to facilitate rapid preoperative medical optimisation and early surgery for patients with hip fractures. We aimed to assess its impact on patient care and outcomes.

Method: Prospective data was collected on 161 patients in six months before and after implementation of the pathway, including: time to orthogeriatric assessment (TtG); time to surgery (TtS); length of hospital stay (LOS); return to original accommodation; and inpatient mortality. Significance was tested using Chi Squared and unpaired Student t-Tests.

Results: With implementation of the pathway, 85% of patients received a pre-operative medical assessment (19% before, p=0.0001). There were significant reductions in average TtG (91 to 19 hours, p=0.0001), LOS (24.8 to 19.5 days, p=0.029), and mortality (14% to 4%, p=0.0336), with an increase in patients returning to their original accommodation (57% to 80%, p=0.0069). Whilst limited by theatre scheduling, there was an observed reduction in TtS (37 to 31 hours, p=0.0663).

Conclusions: Rapid medical optimisation and prompt surgery can significantly improve outcomes in this challenging group of patients, often with complex comorbidities. Successful implementation of a multidisciplinary pathway can also reduce demand on services by facilitating return of patients to their pre-morbid accommodation.

0642: AN AUDIT OF THE USE OF THE PAVLIK HARNESS TO TREAT DEVELOPMENTAL DYSPLASIA OF THE HIP (DDH)

Jennifer Aston1, Robert Hill2, Jeanne Hartley3, 1 University of Aberdeen, Aberdeen, Scotland, UK; 2 Great Ormond Street Hospital and the Portland Hospital, London, England, UK; 3 The Portland Hospital, London, England, UK

Aim: To ascertain the length of time required for the patient’s hips to return to normal on ultrasound scan (US) and to identify any correlations between the length of time taken and any patient characteristics.

Method: Patient records were used to determine the characteristics and outcomes of patients treated by the same orthopaedic surgeon and physiotherapist using the Pavlik Harness. The time taken for the hips to return to normal on USS was taken to be the time for the alpha angle to return to normal for the patient’s age.

Results: Fourteen patients were identified; four had bilateral DDH. Thirteen patients needed no further treatment and the remaining patient was subsequently treated with a Hip Spica. The range of starting angles was 37-57° and treatment time was 14-82 days. On analysis it was found that there is a correlation between a shorter treatment time and a higher alpha angle at the onset of treatment (R² Linea = 0.633).

Conclusions: Research into this area is recommended as it may inform appropriate USS interval times in the treatment of DDH using the Pavlik Harness.

0650: HIP FRACTURE MANAGEMENT AUDIT AT EPSOM AND ST HELIER NHS TRUST

Harry Li. Epsom and St Helier NHS Trust, London, UK

Background: There are 30,000 new incidences of hip fractures annually in the UK with numbers projected upwards.

Method: Data was collected from the National Hip Fracture Database over the period September 2009 to August 2010 for all patients admitted to St Helier Hospital with fractured neck of femur. Data was audited against 3 national standards in the BOA-BGS Blue Book.

Results: 436 patients: 106 men mean age 81; 330 women mean age 83. 58% were admitted to an orthopaedic ward within 4 hours vs 60% nationally. 89.5% of medically fit patients had an operation within 48 hours vs 72.8% nationally; and 78.4% received orthogeriatric input vs 42.4% nationally. 53 patients died during their admission; 31 patients (58.5%) had an ASA of grade 3 or 4. Of these, 15 patients (28%) were admitted to an orthopaedic ward within 4 hours; 31 patients (58.5%) operated on within 48 hours; and 11 patients (20.8%) did not receive any orthogeriatric input.

Conclusion: St Helier Hospital is performing well nationally. However, the 53 patients who died could have received better orthopaedic/MDT management. Many were medically unfit. This recognises the importance of medical team input yet only 1 in 5 of the deceased received orthogeriatric review.

0663: DO PATIENTS UNDERSTAND INFORMATION LEAFLETS FOR SURGERY?

Michael Barrett, Craig Smith, Peter Kenyon, Clynn Thomas. Wirral University Teaching Hospital, Liverpool, Merseyside, UK

Introduction: Patient informations leaflets (PILs) are frequently used to convey detailed information to patients regarding surgery. The Department of Health guidelines on the production of PILs suggest keeping the content simple, with a recommended maximum reading age of the literature to be suitable for an eleven year old (sixth grade student) to read and understand. This is nationally the average adult reading age.

Methods: We assessed the readability of PILs using the Flesch-Kincaid Grade Level (FKGL) and Flesch-Kincaid Reading Ease (FKRE) formulae.

Results: 26 patient information leaflets identified. 100% of articles had a FKGL greater than the maximum recommended grade 6. Mean FKGL grade 10.7. 84% of PILs rated ‘difficult’, 16% rated ‘moderate’ for ease of reading. Mean FKRE was ‘difficult’; mean FKRE score 49.9.

Discussions: Patient information leaflets are difficult to read, exceed the recommend levels of reading difficulty and are beyond the reading ability of most adults. It is therefore essential when producing patient information leaflets to take this into account, and simplify the language and analyse the complexity of the text. Following this the PILs reviewed have been revised to improve the ease of reading for patients.

0705: THE USE OF PROPHYLACTIC PERI-OPERATIVE GENTAMICIN IN ELECTIVE ARTHROPLASTY PATIENTS: IS IT SAFE?

Sian Jones, Karun Veravalli, Claire Topliss. Morriston Hospital, Swansea, UK

Introduction: With the aim of reducing rates of Clostridium difficile infection, ABMU Health Board changed their guidelines for antimicrobial orthopaedic prophylaxis (in line with current practice nationally). This recommends single dose gentamicin (weight based) in combination with flucloxacillin. Following introduction, concern was raised regarding a perceived increased incidence of acute kidney injury (AKI).

Methods: Pre- and post-operative creatinine values of two patient groups were compared. Group 1 (n=230) received pre-operative cefuroxime and group 2 (n=185) received single dose gentamicin and flucloxacillin. Data was analysed using Arcus statistical package. The stage of AKI was determined using the Acute Kidney Injury Clinical Practice Guidelines, published by the UK Renal Association.

Results: There was no statistically significant difference between the pre-operative (median 76, 74.5; p<0.05) nor post-operative creatinine values (median 74, 76; p<0.05) of the two groups. The incidence of AKI did not change with the new antibiotic protocol, but there was a reduction in rates of Clostridium difficile infection (37 cases in 2009, 31 in 2010 within the orthopaedic department).

Conclusion: This audit has demonstrated that single dose gentamicin in combination with flucloxacillin does not increase the risk of AKI. We can therefore safely continue its use for elective orthopaedic patients.

0717: OPTIMAL TIMING FOR SYNDENSTROMIC SCREW REMOVAL – A STUDY BY RADIOLOGICAL ASSESSMENT

Vijay Rajamani, Kodali Prasad, George Zafiropoulos. Prince Charles Hospital, Merthyr tydfil, UK

Objective: To compare the radiological outcome of syndesmotic injuries of ankle following the syndesmotic screw removal before and after eight weeks.

Methods: This was a prospective study of 30 consecutive patients (18 male and 12 female) who sustained a syndesmotic injury between the years 2007 and 2009.

Results: The radiological follow-up was performed at six weeks. The average healing time was six weeks. Conclusion: It can be concluded that the syndesmotic screw after six weeks can be removed.