aims to investigate the impact of pneumonia post emergency laparotomy.

**Methods:** A retrospective case note analysis was undertaken of consecutive emergency laparotomies in a single centre over 8 months. Factors recorded were demographics, indication and procedure undertaken, diagnosis of post-operative pneumonia, length of stay (LOS) and 30-day mortality. Incidence data were analysed using Fisher’s exact test and LOS data with a Mann-Whitney U test.

**Results:** 80 laparotomies were undertaken during the study period, 29 (36.5%) developed a post-operative, radiologically proven pneumonia. The overall 30-day mortality of the study group was 15% (n = 12), 27.6% (8) in the pneumonia group and 7.8% (4) for the non-pneumonic group (p = 0.02). The median total LOS for the non-pneumonic group was 8 days (IQR = 9.5), and 18 days (IQR = 15) (p = 0.02) for the pneumonia group.

**Conclusion:** Presence of post-operative pneumonia significantly increases mortality risk. Overall LOS is significantly increased by a median of 10 days. Average added cost per pneumonia taking into account bed space alone is £4300 (based on costing from Intensive Care Society). Further studies are required to investigate clinically and cost effective, preventative and treatment strategies.

**0447: A CLOSED LOOP AUDIT ON THE DOCUMENTATION OF OPERATION NOTES**

R. Sen†, O. Alsawaf, C. Peach. *University Hospital South Manchester, UK*

**Aim:** The Good Surgical Practise guideline was launched in 2014 and included guidance on what should be completed as standard in our operation notes. The aim was to identify if UHSM was meeting the standards set and can we do anything to improve the contents of our operation notes.

**Methods:** We audited the operation notes of the inpatients and compared this to the standards set. We presented the results to the department and placed copies of the guidelines in theatre. We then re-audited the operation notes.

**Results:** The first set of data included 42 patients and the re-audit contained 36. It showed room for improvement across all 20 points audited. Areas of particular weakness included Time at only 14%, Blood loss at 0% and surprisingly only 60% in DVT prophylaxis plan documentation. Reaudit showed improvement across the board but there is still room for improvements.

**Conclusion:** We need to continue efforts to improve the quality of our documentation, primarily focusing on documentation of time, type, intraoperative diagnosis and findings, blood loss and detailed post-operative plan. It demonstrates that a simple intervention such as a presentation and a few flyers have made a recordable difference.

**0482: IS GROUP AND SAVE REQUIRED BEFORE LAPAROSCOPIC APPENDICECTOMY?**

P. Thomson, J. Ross, J. Bacarese-Hamilton†, S. Mukherjee, B. Mohammadi. *University College Hospital, UK*

**Aim:** Laparoscopic appendicectomy is a safe operation, with low rates of bleeding complications. It is commonly insisted that a patient has a group and save (G&S) sample taken pre-operatively, often delaying emergency operating lists and introducing extra costs (£18.39 per sample excluding laboratory staffing).

Our aim was to see if routine G&S is required.

**Methods:** Retrospective review of all patients undergoing laparoscopic appendicectomy between April 2012–March 2014. Patients were identified using hospital coding records. Transfusion department records were reviewed to see which patients had undergone pre-operative G&S or cross-match, and perioperative transfusion.

**Results:** 371 operations were performed in 2 years (median age 27, M:F 164:207). 276 (74%) underwent G&S. 4 patients in total were transfused post-operatively (1.1%), 3 with pre-existing transfusion dependent haematological conditions. 1 patient (0.3%) was transfused post-operatively for a pelvic haematoma related to a port-site bleed. Total cost of G&S £5075.

**Conclusion:** The blood transfusion rate for bleeding complications following laparoscopic appendicectomy is 0.3% in our unit. G&S samples for these procedures cost £5075 over 2 years. Abandoning pre-operative G&S in patients without pre-existing transfusion dependent conditions appears to be justifiable, would lead to financial savings, and could reduce delays in emergency operating theatre lists.

**0485: 4-CYCLE AUDIT LOOP: RATIONALISING ROUTINE GROUP & SAVE REQUESTS FOR PATIENTS WITH RIGHT ILIAC FOSSA ABDOMINAL PAIN**

G. Dovell†, Z. Oliphant, E. Tudor, L. Hunt. *Musgrove Park Hospital, UK*

**Aim:** To review and rationalise routine “group & save” (G&S) and “cross match” requests for patients admitted under general surgery with right iliac fossa (RIF) abdominal pain, reducing unnecessary and costly requests for patients who are unlikely to require transfusion.

**Methods:** A 4-cycle retrospective audit was performed of patients under 65 with RIF pain, admitted to a district general hospital. Trust guidelines were introduced following an initial survey (G&S should not be performed routinely in patients under 65 presenting with RIF pain). Audit cycles were completed after the introduction of trust guidelines, after further education to clinical staff and finally to check maintenance of practice.

**Results:** In the initial survey, 72% (97/158) patients had a G&S. Following introduction of Trust guidelines, 20% (24/120) patients had a G&S. In the third survey, 17% (8/47) had a G&S and in the final audit cycle 5% (2/39) had a G&S.

**Conclusion:** Introduction of Trust guidelines has reduced the rate of unnecessary G&S requests. This was further improved with re-education after the junior doctor handover and maintained 4 months thereafter demonstrating a change in practice.

**0490: EVALUATING THE COST OF ‘ALCOHOL ON BOARD’ AS A SIGNIFICANT CONTRIBUTOR TO ACCIDENTAL BLUNT TRAUMA**

K. Linton‡, G. Bass§, D. McDaniel†, M. Sayana†, P. Harrington†. *Our Lady of Lourdes Hospital, Ireland; Royal College of Surgeons in Ireland, Ireland*

**Aim:** Blunt trauma is one of the primary reasons for acute admission to a trauma unit. We investigate the relationship between ‘method of injury’ (MoI) and Injury Severity Score (ISS) in a major regional trauma centre.

**Methods:** On 31st December 2014, the Trauma Audit & Research Network (TARN) exported all records for OLOL, Drogheda. Hospital In-Patient Enquiry (HPE) provided MoI, ISS, length of stay (LoS) and ‘cost of admission’ (CoA). All cleaning of data and statistical analysis was performed in R.

**Results:** Initial analysis revealed that: (a) penetrating trauma is less than 3% of all trauma admissions; and (b) 3 categories of blunt trauma account for over 90%. “Fall < 2m” corresponds to 46% of total admission volume, with “Road Traffic Accident” (RTA) exactly half this (23%). Both have strong relationship with alcohol as the primary MoI. Moreover, 22% of admissions had an ISS under 9, 43% were between 9–15, with 35% over 15.

**Conclusion:** Every major injury due to trauma costs in excess of €650,000. Alcohol-related blunt trauma accounts for 29% of all trauma admissions presenting at OLOL. We report on the relationship of alcohol-related MoI and ISS to LoS and CoA, and key implications for patient management.

**0614: CAN PROLONGED LENGTH OF STAY BE PREDICTED IN ACUTE ELDERLY SURGICAL ADMISSIONS?**

O. Abdel-Hadi, A. Farah†, K. Lee, J. Sturt, A.M. Almoudaris. *Southend University Hospital, UK*

**Aim:** To quantify prolonged length of stay and attributable factors after acute admission in elderly patients admitted to a teaching hospital following ‘medically fit for discharge’ (MFD) status.

**Methods:** 80 Consecutive patients from a prospectively maintained electronic database were included if they were aged >70 yrs presenting to the acute general surgery take. Medical records were interrogated and a predetermined proforma was populated and reporting on demographics, modified Barthel Index, total length of stay, time to diagnosis/PT/OT assessment/treatment, ASA, MFD date, cause of delayed discharge.
Results: 32% (25/80) of patients stayed beyond MFD status. This equated to 23% (67/294) of the total LOS for the whole cohort. Demographics were similar between the groups (timely discharge group- TDG and delayed discharge group-DDG). Significant factors between the groups were operative intervention (9 versus 1) p = 0.003 and modified Barthel Index p = 0.019. The prolonged LOS quantifies to annual bed costs of £180,000–320,000 in our institution.

Conclusion: Non-operative elderly patients without current home/social care packages represent the group of patients that should be actively targeted from admission for efficient discharge

0616: RETROSPECTIVE RE-AUDIT INTO THE USE OF ANTIBiotics IN APPENDICITIS AT A DISTRICT GENERAL HOSPITAL

L. Newton, A. Kanwar, S. Robinson, T. Oswald. Wansbeck General Hospital, UK

Aim: Ascertain change in practice in antibiotic prescription following previous review of trust guidelines adherence, found to be poor, and subsequent education of all grades of surgical staff.

Methods: Retrospective audit of hospital notes of all appendicectomies in preceding 2 months: 41 patients [July 2014–August 2014], proforma devised, data collated. Three standards set as per trust antibiotic guidelines: antibiotic type, pre and post op usage: to be met in 100% of cases.

Results: 1. Pre-op antibiotics (co-amoxiclav if <65yrs, piperacillin/tazobactam if >65yrs): 95% of patients given antibiotics, 47.8% given appropriate antibiotic (24% previously). 2. Post-op antibiotics (co-amoxiclav if <65yrs, piperacillin/tazobactam if >65yrs): 56% of patients given appropriate antibiotic (19% previously). However, some still given metronidazole (37%). 3. Antibiotic duration (24hrs if uncomplicated, 5days if complicated appendicectomy): 66% receiving appropriate duration (56% previously).

Conclusion: No standard met in 100% of cases. However, there has been moderate improvement since the previous data collection in terms of the correct antibiotic being prescribed. Recommendations: email to surgical staff to remind of trust antibiotic guidelines for appendicitis, encourage junior staff to challenge antibiotic decisions and adopt antibiotic stewardship. Re-audit results.

0618: FALLING FROM TREES, A FREQUENT MECHANISM OF CERVICAL SPINAL INJURY IN A REMOTE PROVINCE OF PAPUA NEW GUINEA

L. Duggleby 1,*, R. Wand 2, N. Yaubihi 1, 3. 1 Alotau General Hospital, Papua New Guinea; 2 University of Bristol, UK

Aim: To calculate the incidence of cervical spine injuries for the province. To determine the variation in mechanism of injury. To illustrate access to health care across this island province.

Methods: All patients admitted to the surgical ward at a regional hospital in Papua New Guinea over a 5-year period between 04/2008 and 04/2013 were included. Patients were identified from the admission record and any evidence of cervical injury and included for final analysis. Information was extracted for: mechanism of injury, age, sex, occupation, duration of inpatient stay and their place of origin.

Results: There were 4,191 surgical admissions, with 28 (0.67%) documented cases of cervical spinal injury resulting in a provincial incidence of 2 cases per 100,000 per year. Mean age was 32 (range 4–60). Average duration of stay was 30 days (range 0–131). Nine (32%) of cases were RTAs and 6 (21%) resulted from falls from trees.

Conclusion: Majority of cervical spinal injuries in this study are high injury, common in males and are often the result of falls from trees or RTAs resulting in long inpatient stays. Tree climbing is common practice in this predominantly subsistence community that demonstrates an unusual mechanism of injury.

0659: THE ROLE OF ULTRASOUND SCANNING (USS) IN RIGHT IliAC FOSSA (RIF) PAIN IS USS IMAGING DELAYING EMERGENCY APPENDICEC TOMIES?

A. Sukha, D. Luke. Royal Shrewsbury and Telford Hospital Trusts, UK

Aim: This project investigates USS results from patients who had undergone appendicectomies to assess the sensitivity and specificity in detecting a histology positive acute appendicitis. We also investigated whether the decision to USS delayed an emergency procedure.

Methods: Retrospective data collection between January–June 2014. Data was collected from Theatre logbooks, Pathology/PACS systems.

Results: Between January–June 2014, 226 appendicectomies were performed on the emergency–operating list. 15% (n = 34) had undergone pre-operative USS (74% Female, Mean age = 27 years). 76% (n = 26) of those who had a scan went onto have a diagnostic laparoscopy and appendicectomy, 24% (n = 8) had an open appendicectomy.53% (n = 18) were found to have a histology proven positive appendicitis. USS as an investigation to detect acute appendicitis demonstrated a sensitivity of 22.2% and specificity of 68.8%. PPV of 44.4% and a NPV of 44.0%. A mean delay of 0.97 days was observed from admission to operation due to USS.

Conclusion: USS result often does not change the definitive management in patients with ongoing RIF pain. Diagnostic laparoscopy can be therapeutically even in the absence of appendicitis. With USS delaying time to theatre and increasing hospital stay we conclude the USS has a limited role in investigating RIF pain in a patient presenting with the classic acute appendicitis.

0695: ANALYSIS OF THE IMPACT OF A 24- HOUR EMERGENCY THEATRE ON TIME TO APPENDICECTOMY

O. Godkin1, C. Fleming, D. Kearney, P. Moriarty, P. Redmond, E. Andrews. Cork University Hospital, Ireland

Aim: We investigated whether the introduction of a 24 hr emergency theatre reduced the waiting time for appendicectomy in adult patients with histologically proven appendicitis.

Methods: The study was conducted in a 800-bed hospital. We performed analysis using prospectively maintained data of two cohorts of patients over 12 month periods; one in 2005/6 and in 2012, before and after the introduction of an emergency theatre. Data was gathered from theatre logbooks, pathology reports and hospital charts.

Results: There were 228 appendicectomies in the 2005/6 cohort compared to 409 appendicectomies in 2012. Excluding paediatric (82 and 184 patients respectively) and ineligible (13 and 38 respectively) patients; there were 133 and 190 patients for analysis. Negative appendicectomy rate was 14% in 2005/6 compared to 23% in 2012 (p = 0.03). The perforation/gangrene rate was 17% and 18% respectively. Patients with histologically proven appendicitis, there was a mean 23.44 hr wait between first ED attendance and appendicectomy in 2005/6 compared to 20.28 hrs in 2012. (14.5% reduction, p = 0.03).88% of appendicectomies were completed laparoscopically in 2012 compared to 43% in 2005/6 (p = 0.0001).

Conclusion: Since the introduction of a dedicated 24-hour emergency theatre, there has been a significant reduction in time to appendicectomy for histologically proven appendicitis despite a 79% increase in appendicectomy workload over the time period.

0716: THE AMBULATORY EMERGENCY SURGERY HOT CLINIC: STREAMLINING SERVICES AND SAVING MONEY

G. Humm, D.S. Alsaaadi, E. Farinella. East and North Hertfordshire NHS Trust, UK

Aim: The Hot Clinic offers rapid assessment and investigation of the acute general surgical patient and ongoing review of patients post-discharge. Our aim was to retrospectively examine the use of the Hot Clinic, its impact on admissions, length of stay and cost.

Methods: A retrospective review of Hot Clinic outcomes over five consecutive months was conducted. Post-discharge encounters evaluated for reduction in length of stay (LOS), acute encounters were analysed to determine whether a surgical bed was required and admission was prevented. Cost analysis was performed using Trust data.

Results: 137 Hot Clinic appointments were conducted in a 5 month period. In 77% of acute cases (n = 81) admission was prevented, with 43 % not