CBA, 1 revealed pathology (SBO), 2 had CT scans (diverticulitis, SBO), and 1 had surgery. All four male USS (median age 26) were normal.

**Conclusions:** Our study and the Royal College of Radiology suggest that USS is useful for investigating lower abdominal pain in women of CBA. Use of USS in other patients is not advised. We suggest that further education is required for those requesting USS.

1325: APPENDICITIS IS STILL A CLINICAL DIAGNOSIS
Andrea Sheel, Ryan Baron, Mark Hartley, Nathan Howes. The Royal Liverpool University Hospital, Liverpool, UK.

**Aims:** To review the use and accuracy of diagnostic tests in patients undergoing appendicectomy.

**Methods:** Retrospective review of 243 consecutive patients who underwent appendicectomy between 01/01/2011-31/07/2012 in a Regional Teaching Hospital.

**Results:** All patients had an FBC and 91% had CRP preoperatively. Raised WCC (> 11.0) demonstrated a sensitivity of 79%, specificity of 51%, positive predictive value (PPV) of 86% and negative predictive value (NPV) of 39%. Raised neutrophil count (> 7.5) had a sensitivity of 85%, specificity of 43%, PPV of 85% and NPV of 44%. Raised CRP (> 5) had a sensitivity of 82%, specificity of 32%, PPV was 82% and NPV of 32%.

The area under the receiver operator curves were 0.704 for raised WCC, 0.712 for raised neutrophils and 0.595 for raised CRP.

Advanced imaging (pelvic ultrasound scan and abdominal CT scan) doubled patient time to theatre (33hrs vs 17hrs) (p<0.001 Mann Whitney U).

**Conclusions:** Admission inflammatory markers have a low specificity and NPV in appendicitis and CRP is only marginally better as a diagnostic test than flipping a coin. Advanced imaging significantly delays appendicectomy. The diagnosis of appendicitis remains multifactorial and still requires clinical acumen. We should not be reassured by normal inflammatory markers.

1391: ARE READMISSION AND REOPERATION RATES A GOOD QUALITY INDICATOR OF EMERGENCY SURGICAL ADMISSIONS?
Scott Williams, Luke Mc Guinness, Timothy Bullen, Simone Slawik. University Hospital Aintree, Liverpool, UK.

**Aim:** Readmission and reoperation rates are used as quality indicators in emergency surgery. We assessed the rate and relevancy of subsequent readmission (90day) / reoperation with the original surgery.

**Methods:** We performed a retrospective case note review of all patients having emergency surgery under the care of four colorectal surgeons at the Aintree University Hospital between May 1st and August 9th.

**Results:** 199 patients had emergency surgical operations (ESOs) over the 3 months. 38 (19%) of the ESOs were readmitted, of which 9 (24%) were due to medical morbidity and the remaining 29 (76%) were surgical admissions. Of the surgical readmissions 5 (17%) patients returned for planned elective procedures and two (7%) admissions were with unrelated morbidity. 21 (11%) of the ESOs returned to theatre during the same or subsequent admission, of which 4 (12%) were for elective procedures and 1 (3%) for an unrelated condition.

**Conclusions:** Readmission rates over-estimate the proportion of patients having morbidity directly related to ESO by 42%. Reoperation rates over-estimated the true figure having surgery secondary to operative morbidity by 15%. Reoperation rates are a better indicator for quality post ESO than readmission rates.

1393: COMPARISON OF OUTCOMES OF WEEKEND VERSUS WEEKDAY ADMISSIONS OF APPENDICITIS IN A TEACHING HOSPITAL
Kam Wa Jessica Mok. Royal Preston Hospital, Lancashire, UK.

**Aims:** Emergency admissions to acute hospitals in weekends have shown to increase morbidity and mortality. We sought to determine whether weekend admissions with appendicitis were associated with delay in time to appendicectomy and whether they were at increased risk of developing complications.

**Methods:** We reviewed notes for patient who had appendicectomy over a 3 month period. 22 were admitted over weekend compared to 46 during the weekday who had appendicectomy performed during their acute admission. We compared time to appendicectomy, length of hospital stay, and complications.

**Results:** Patients admitted at the weekend were not at a higher risk of developing complications compared to weekday admissions (Relative risk 0.69, 95%CI = 0.15 - 3.1, p=0.61). Time to appendicectomy was lower in weekend admitted patients (median time = 22hours) compared to those admitted during weekdays (25 hours, p<0.05). Negative appendicectomy rate was higher in weekday admission group (15%) compared to weekend (4.54%). Length of stay was similar in weekend admissions versus weekday (median 3 versus 4, p=0.05).

**Conclusions:** Patients with acute appendicitis requiring appendicectomy who were admitted over the weekend in our current trust did not have an increased risk of developing complications or increased hospital stay.

1404: A 4-HOUR TARGET FOR DEFINITIVE MANAGEMENT OF SEVERE HEAD INJURY: CAN SPEED OF TREATMENT BE IMPROVED WITH AN ALLOCATED ICU BED? A CLOSED-LOOP AUDIT
Warren Bennett¹, Kelly Mackey¹, Adam Williams¹, Ellyn Thomas², Peter Whitfield¹. ¹Department of Neurosurgery, Derriford Hospital, Plymouth, Devon, UK; ²Department of Intensive Care Medicine, Derriford Hospital, Plymouth, Devon, UK.

**Aim:** The Trauma, Audit & Research network (TARN) currently recommend that patients with severe head injuries receive definitive treatment within 4 hours of injury. Definitive treatment is seen as insertion of an ICP monitor or emergency cranial surgery. The aim of this closed loop audit is to analyse the time taken for definitive treatment before and after the establishment of a dedicated emergency neurotrauma ICU bed at a trauma centre.

**Method:** All severe head injury patients requiring definitive treatment referred in two three-month periods were analysed, before and after the establishment of a dedicated emergency neurotrauma bed. Referrals were either internal or from 4 surrounding hospitals. Timings were obtained from hospital notes and departmental computer records.

**Results:** The mean time from injury to definitive treatment before the dedicated bed was 6h55mins (range 2h41mins - 11hr59mins). Only 2 of the 14 patients met the 4-hour target (14%). Post intervention, the mean was 5h21mins (range 1h58mins - 12hr10mins). 4 of the 10 patients met the 4-hour criteria (40%).

**Conclusions:** The establishment of a dedicated emergency neurotrauma bed resulted in an increase in definitive neurosurgical management within the 4-hour target. However further work needs to be done to improve the treatment times.

1419: PERI-OPERATIVE RISK SCORING IN 86 CONSECUTIVE EMERGENCY LAPAROTOMIES
Stephen Stonelake, Peter Thomson, Nigel Suggett. Queen Elizabeth Hospital Birmingham, Birmingham, UK.

**Aim:** We aimed to assess if peri-operative risk scores could accurately predict actual mortality risk and used to audit national standards. National guidance states that patient who predict > 5% mortality should be operated on and anaesthetised by a consultant. Those whose risk score predicts > 10% mortality should be reviewed by a consultant within 4 hours of admission. We audited 86 consecutive emergency laparotomies, January - July 2012, were calculated using pre-operative (ASA, Lee index) and post-operative (POSSUM, P-POSSUM and CR-POSSUM) risk calculation tools.

**Results:** The actual mortality was 10.6%. The average predicted mortalities were: ASA 26.5%, Lee Index 2.5%, POSSUM 29.5%, P-POSSUM 18.5%, CR-POSSUM 10.5%.

**Consultants treated 82% (surgeons) and 48% (anaesthetists) of patients having ASA predicted mortality of < 5%. Review within 4 hours by a consultant surgeon was achieved in 20% and 0% of patients predicting > 10% mortality risk according to ASA and Lee Index respectively.

**Conclusion:** CR-POSSUM predicts mortality most accurately. Lee Index under-predicts and ASA over-predicts mortality risk. This makes pre-operative risk stratification difficult. The majority of high risk laparotomies were performed by consultant surgeons but review < 4 hours from admission was infrequently achieved.

1420: MANAGEMENT OF TRAUMA PATIENTS ADMITTED TO CRITICAL CARE AT QUEENS MEDICAL CENTRE: COMPARISON OF TWO STUDIES
Kohila Vani Sigamoney, Baseem Chowdhry, Thearina De Beer. Queens Medical Centre, Newcastle, UK.

**Introduction:** Trauma patients should be managed according to Advanced Trauma Life Support (ATLS) and local protocols.

**Method:** A retrospective analysis of trauma patients presenting to critical care at Queen’s Medical Centre, Newcastle, UK from August 2009 - July 2010 was performed. Over this period, 193 patients were admitted to the ICU/HDU, of whom 40 were coded as trauma. A comparison was made with a previously conducted study present in the abstract book (which included 139 trauma patients admitted over a 12-month period, July 2008 - June 2009).

**Results:** The trauma patients admitted over the two periods were similar in terms of age and sex. Significant differences were noted in trauma mechanism, head injury, long bone fractures, and thoracic trauma. Patients admitted in the second period were more likely to have multiple injuries, more severe head injuries, and more severe thoracic trauma.

**Conclusion:** These differences in patient demographics and presentations suggest that trauma management at Queen’s Medical Centre has improved over the last year.
Objectives: To review the management of trauma patients.

Methods: Data from all trauma patients that were admitted to the Adult Intensive Care Unit (ACIU) and Surgical High Dependency Unit (SHDU) at the hospital from 19/02/2011 to 19/05/2011 were collected (30 patients). The way these patients were managed from the time they were brought to A&E was looked at and data collected from trauma sheets and ACIU/SHDU clerking and daily review sheets. A Re-Audit was performed from 01/05/2012 and 01/08/2012 and a total of 30 were looked at.

Results: All patients had criteria for the activation of a trauma call. However, only 21 had calls put out. With regards to surveys; 19 patients had secondary surveys and only 2 patients had tertiary surveys done. 10 had ample histories taken. Pregnancy tests were checked appropriately and only 13 had admitting team consultant review in 24 hours. The Re-Audit demonstrated a significant improvement in these aspects.

Conclusions: None of the patients were managed completely as per protocol in the first study. After becoming a trauma centre, set protocols were followed and a marked improvement was seen.

1446: OUTCOMES FOLLOWING EMERGENCY LAPAROTOMY: A COMPARISON OF PREDICTED POSSUM MORBIDITY WITH THE CLAVIEN-Dindo CLASSIFICATION OF SURGICAL COMPLICATIONS

Stephen Stonelake, Peter Thomson, Nigel Suggett. Queen Elizabeth Hospital Birmingham, Birmingham, UK.

Aims: We aimed to collect data to assess outcomes in emergency laparotomies and to examine the correlation between predicted and actual morbidity.

Methods: Data was collected for 85 consecutive emergency laparotomies, from January-July 2012, including, 30-day mortality, length of stay, age of patient, POSSUM predicted morbidity and Clavien-Dindo (CD) classification of surgical complications.

Results: The median age was 69. The overall 30 day mortality was 9/85 (10.6%); 9/51 in those aged >65 and 0/34 in those aged <65 (p=0.0098). The median post-operative length of stay was 23 days (mean 33), and was greater in those >65 years (25 vs. 16 days) and those with a >50% POSSUM morbidity prediction (26 vs. 12 days). In addition to the 9 mortalities, there were 55 laparotomies with complications (65%). The severity of these complications correlated positively with the predicted POSSUM-morbidity score: The average percentage predicted POSSUM morbidity in all the patients who developed CD classification 1, 2, 3 and 4 complications were 31%, 62%, 78% and 93% respectively.

Conclusions: Emergency laparotomy is associated with a high risk of mortality and complications. This is especially evident in those aged >65 years or with a high POSSUM morbidity score.

1463: IMPACT OF THE INTRODUCTION OF A COMBINED HAND TRAUMA SERVICE AT LEICESTER ROYAL INFIRMARY

Kwang Chear Lee, Deborah Foong, Sanjay Varma. Leicester Royal Infirmary, Leicester, UK.

Introduction: Hand trauma theatre sessions for the plastics department were reduced as part of cost-saving measures. To compensate, the plastic and orthopaedic departments agreed to create a combined hand trauma service. We sought to compare patient outcomes before and after the introduction of this combined service.

Methods: An analysis of retrospectively collected data was performed for all hand trauma patients admitted to the plastic surgery department before the introduction of the combined service (July - September 2011) and for 1 month after (June 2012). Patient outcomes were compared in regards to time of injury to surgery, complications and emergency theatre use.

Results: A total of 215 patients were audited (n=164 pre-combined service, n= 51 post). Average age was 33 years, 75% male. Average time of injury to surgery increased from 2.2 days to 4 days (p<0.001) however use of emergency theatres decreased from 25.6% to 11.8% (p<0.05). There was no significant change in complication rates.

Conclusion: Although average time of injury to surgery increased, no change in complication rates was noted and use of emergency theatres dropped by more than 50%. The combined service also allows the unique opportunity for trainees to train under hand consultants of both specialties.