

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 17 hrs) ( $p < 0.001$  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?

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**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 1<sup>st</sup> and August 9<sup>th</sup>.

**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

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**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 (RCS February 2011; NCEPOD 2011)

**Methods:** Mortality risk for 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.