

Methods: Data was collected for four Level 1 MTCs, two with and two without helicopter-transfer facilities, looking at ISS of patients admitted with pelvic and/or acetabular fractures. Subgroup analyses were performed by fracture type, patient age, and mechanism of injury.

Results: A total of 538 patients, 251 at centres with a helipad and 287 at centres without, were included. The overall median ISS was significantly higher in centres with a helipad (22 vs 16, $p < 0.0001$). The ISS was significantly higher in centres with a helipad in all subgroup analyses except patients > 60 years old and those with low-energy mechanism of injury.

Conclusions: MTCs with helicopter-receiving capability tend to see pelvic trauma patients with a higher ISS. High numbers of patients with lower ISS represent the increasing number of fragility fractures in the elderly. These patients require different preoperative optimisation to polytrauma patients, different surgical expertise, and postoperative rehabilitation similar to elderly patients with proximal femoral fractures. This has important implications in service planning, training and expertise.

0637: OUTCOME OF EMERGENCY GENERAL SURGERY IN A UNIVERSITY HOSPITAL

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Introduction: The Emergency Laparotomy Network published an average mortality rate of 14.9% and a median length of 11 days in patients undergoing emergency abdominal surgery. The aim of this study was to evaluate the outcomes of emergency surgery in our setting.

Methods: This was a retrospective study involving patients who underwent emergency surgery between March and May 2013. Patients under the age of 18, those who underwent appendectomy, cholecystectomy and uncomplicated hernia repair were excluded. Details of the operative procedure and postoperative outcome was retrieved from online information system.

Results: During this 3 month period, 221 patients underwent emergency surgery of which 112 patients were included. There were 40 females and 72 males with a median age of 64.5 (range 18–90) years. Most cases were operated between 0800 and 1800hrs and 9.8% cases were operated after midnight. 41.9% cases were ASA III and above and 18.7% required intensive care admission. The median length of hospital stay was 19 days. The 30 day mortality was 15% ($n=17$) and 32% ($n=36$) patients had post-operative complications.

Conclusions: Our results show that the overall mortality rate is similar, however our patients have a longer hospital stay as compared to the national average.

0643: OUTCOME OF SPLIT SKIN GRAFTS PERFORMED BY ORTHOPAEDIC SURGEONS IN A UK MAJOR TRAUMA CENTRE

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Introduction: Skin grafting is the simplest technique for achieving skin cover when primary wound closure cannot be achieved. The aim of this study was to establish the outcomes of split skin grafts performed by orthopaedic surgeons in an acute context, prior to the introduction of a plastic surgery service, at a UK major trauma centre.

Methods: All patients who underwent split skin grafting between January 2007 and April 2012 were included in the study, and their hospital notes reviewed retrospectively. Primary outcome measure was successful graft take, and secondary outcome measure was the occurrence of complications at both graft and donor sites.

Results: Sixty-five consecutive split skin grafts were performed during the study period. Successful graft take rate was 80.7%. Overall graft site complication rate was 28%, and donor site complication rate was 8.3%. Six patients were referred to a plastic surgery unit for further treatment. Grade of surgeon was a predictor of outcome ($p=0.0025$), but age, ASA grade, indication and graft site were not.

Conclusions: This unique study provides a standard for the outcomes of split skin grafts performed in an acute context. Surgeons should consider their level of expertise before attempting SSGs.

0710: MAKING EMERGENCY CT MORE EFFICIENT OUT OF HOURS: PUTTING THE SURGEONS IN CHARGE

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Introduction: Computerised Tomography (CT) is vital for emergency surgery. Delays in acquiring CT can lead to diagnostic and treatment delays, hence increasing morbidity and mortality. To avoid this in our trust, the on call surgical team after consultant surgeon discussion can now book emergency out-of-hours CT (OOHCT) via radiographers, with scans reported by external radiologists. The audit's aim was to ensure that OOHCT booked by surgeons were appropriate.

Methods: OOHCT over 8 weeks were retrospectively analysed against Royal College of Surgeons guidelines for Emergency surgery and Royal College of Radiology Guidelines. Indications, results, scan/report times and outcomes were analyzed.

Results: 19 OOHCT were requested over the study period. The median time from request to scan was 60 minutes (range 12–181), from request to verbal report was 116 minutes (range 59–334). Relevant pathology was found in 18/19(95%). CT diagnosis was different to initial diagnosis in 8/19(42%). 6/19(32%) patients went to theatre based on these findings. The majority, 13/19(68%), were treated conservatively.

Conclusions: All scans performed were appropriate and had a high yield for pathology. CT changed initial diagnosis in 42% patients thus potentially avoiding diagnostic/treatment delay. The surgical team can appropriately control OOHCT.

0720: THE ROLE OF IMAGING IN DIAGNOSING ACUTE APPENDICITIS

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Introduction: Acute appendicitis remains the most common surgical emergency. Diagnosis is based on clinical assessment and investigations. Availability of imaging has meant increased use for diagnosis. Our aim was to identify the accuracy and modality of imaging for diagnosing acute appendicitis.

Methods: Using a proforma retrospective case note review of all appendicetomies in our Trust performed between 2011 – 2013 was carried out.

Results: 584 appendicetomies were performed between March 2011 – March 2013. The type of operation was: Male: Female ratio 1:1.5. Median age was 28 (range 4–76). 157 (28.9%) underwent pre-operative imaging. Of those 80 (50.1%) underwent CT, 66 (42%) USS; 8 (5.1%) both CT and USS; 2 (1.3%) abdominal radiograph; 1 (0.6%) MRI. CT suggestive of appendicitis: 74 (84.1%). Of these CTs 67 (90.5%) has positive histology of appendicitis; 7 (9.5%) normal histology. USS suggestive of appendicitis 19 (25.6%); of this group 13 (68.4%) had positive histology of appendicitis; 6 (31.6%) normal histology.

Conclusions: Majority of patients do not have imaging in our Trust. CT appears more accurate for diagnosis of appendicitis, in line with current evidence. Even with imaging, a small proportion of patients still have normal histology. Imaging should be combined with clinical assessment.

0721: DOES MACROSCOPICALLY NORMAL APPENDIX MEAN NORMAL HISTOLOGY?

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Introduction: Acute appendicitis remains the most common surgical emergency. Controversy still exists amongst surgeons on removal of a macroscopically normal looking appendix (particularly at the time of laparoscopy). Our aim was to identify the correlation between macroscopic findings at appendicectomy and pathologists' assessment.

Methods: A retrospective case note review of all appendicetomies performed between 2011–2013 was carried out in our Trust. Using a surgical proforma, data was extracted on demographics, type of operation, operative findings, and final histology.

Results: 584 appendicetomies were performed: Open 282 (48.2%), Laparoscopic 226 (38.6%), Laparotomy 5 (0.8%), not documented 43 (7.3%). Male: Female ratio 1:1.5. Median age was 28 (range 4–76). Overall histology positive for appendicitis was found in 453 (77.5%); normal histological findings in 131 (22.5%). Surgeons' intra-operative findings of macroscopically normal appendix: 98 at laparoscopy. Of those 75 (76.5%) were normal; 23 (23.5%) had histological features of appendicitis. In cases where surgeons found macroscopic normal appendix, 24 (24.5%) documented small bowel inspection; 74 (75.5%) no documentation of small bowel inspection

Conclusions: We have shown that patients can have a macroscopically normal appendix: but nearly a quarter with positive histology shows it is important to remove appendix - particularly if patient is symptomatic.