

0031: AUDIT OF EMERGENCY LAPAROTOMY UNDERTAKEN AT THE ROYAL DERBY HOSPITAL COMPARED TO THE RESULTS OF THE UK EMERGENCY LAPAROTOMY NETWORK; DO WE MEET THE OPTIMUM STANDARDS OF CARE?

Aimee Rowe^{*}, Sarah Shore, Brett Doleman, David Mulvey, Mike Bewick. *Royal Derby Hospital, Derby, UK.*

Introduction: To compare our performance locally at The Royal Derby Hospital against the recently published National Emergency Laparotomy Audit by the Emergency Laparotomy Network.

Methods: Prospective data were collected over a three month period, totalling 85 patients undergoing emergency laparotomy. Data included grade of surgeon and anaesthetist, time of procedure and post-operative destination, and 30 day mortality figures.

Results: Mortality locally was similar in all the age groups compared with NELA ($P>0.05$). Overall 30-day mortality was 14% in the local audit versus 14.9% nationally.

Factors found to affect 30-day mortality ranged from underlying pathology to the timing of surgery, with a higher mortality of 20% for the 27/85 cases undertaken 'out of hours' (00:00–07:59) compared with 10% 'in hours' (08:00–17:59). Mortality appears to correlate with involvement of consultant anaesthetists/surgeons as more were present 'in hours'.

Post-operative destination was highlighted locally as an area for improvement; 30-day mortality was 17% for patients returning to ICS level 0 care, versus 10% (level 1/2) and 16% (level 3).

Conclusions: This study gave insights into current local management of a particularly high-risk patient group. Improved utilisation of critical care units and outreach teams in support of such patients has resulted from this audit.

0274: ROTATIONAL THROMBOELASTOMETRY (ROTEM) – THE FUTURE OF HAEMOSTATIC RESUSCITATION IN MAJOR TRAUMA CENTRES

Ruth Bird^{*}, James Lawless, Ross Davenport, Claire Rourke, Anne Weaver, Karim Brohi, Daniel Nevin. *Royal London Hospital, London, UK.*

Introduction: Major trauma haemorrhage and coagulopathy are significant factors contributing to early mortality. Routine coagulation testing reflects the initiation phase of haemostasis at the point of testing and is limited in guiding real-time blood product replacement. ROTEM is a point of care test, which measures the interactions of coagulation factors, inhibitors and cellular components during the phases of clotting. It identifies coagulopathies secondary to dilution, consumption, deficiencies and hyperfibrinolysis, providing a rapid guide to haemostatic resuscitation.

Methods: Training was initiated in machine use and result interpretation. We devised and implemented a standard operating procedure and robust algorithm, simplifying ROTEM interpretation and blood product replacement therapy into binary steps.

Results: The Royal London Hospital Trauma Service introduced ROTEM for "CODE RED", haemodynamically unstable patients. Creation of a mobile point-of-care unit allows the machine to follow the patient on their journey from admission to intervention. An algorithmic approach to targeted factor replacement therapy has allowed for rapid, widespread utilisation of this technology.

Conclusions: Choosing a targeted population of personnel to train, and using a simple algorithmic approach to interpretation and therapeutic decision making; ensures the process is straightforward and easy to utilise when introduced to a major trauma centre.

0326: RE-AUDIT OF TIMELINESS TO EMERGENCY SURGERY: ARE WE MEETING RCS STANDARDS?

Hannah Boyd-Carson^{*}, Andrew Cheah, Jenny Cole, Chris Horner, Umar Shariff, Haney Youssef. *Department of General & Colorectal Surgery, Good Hope Hospital, West Midlands, UK.*

Introduction: A prospective audit on "timeliness-to-surgery" for general surgical emergency patients was performed in a district general hospital (July 2012). This demonstrated deficiencies in emergency theatre access compared to RCS recommendations. Following introduction of pre-operative risk stratification and dissemination of audit findings, the aim of this re-audit was to establish if there were improvements in emergency surgical care with respect to RCS standards.

Methods: Data on emergency admissions requiring surgical intervention was prospectively collected (1/2/13 - 3/3/13). Patients were risk stratified

for morbidity/mortality rates using P-POSSUM scoring and compared to RCS "timeliness-to-surgery" standards.

Results: 53 operations were performed (28% of admissions). Median age 38 years (18–86) with 5.6% post-operative mortality. 100% "on-going haemorrhage" and "septic shock" patients went to theatre immediately and within 3 hours respectively; 75% "severe sepsis" patients went to theatre within 6 hours, and 68% "septic" patients went to theatre within 18 hours. Other specialities utilising theatre (30%) and recovery issues (40%) accounted for the main reasons for delays to theatre.

Conclusions: Implementation of changes has led to some improvements in timeliness-to-surgery; however two standards were still not met. "Single speciality" theatre allocation and increased recovery staff numbers could potentially improve the delivery of emergency surgical care.

0335: THE LEARNING CURVE OF LAPAROSCOPIC APPENDICECTOMY

Wesley Lai^{*}, Shelly Griffiths, Stephen Mitchell. *South Devon NHS Trust, Torquay, UK.*

Introduction: Appendicectomy is one of the commonest emergency operations, with the adoption of laparoscopic approach increasing over the last decade. We performed an audit to investigate the learning curve of laparoscopic appendicectomy (LA).

Methods: All patients who underwent an emergency appendicectomy between 1st May and 30th June 2012 were included. Data including patient demographics, operative details and clinical outcomes was collected prospectively, and subsequently entered into a database for analysis.

Results: 50 patients were identified over the 2-month period (median age 21(9–80)). 41(82%) had LA (conversion rate 4.9%), of which the level of primary surgeon (F2–ST7) and their prior LA experience (<25->100 cases) were recorded. The overall mean durations were 75.7min in laparoscopic and 80.8min in open respectively. With the exception of <25cases (mean duration 77min - all F2–CT2s supervised by ST3+), the mean duration of LA was inversely proportional to the number of cases performed by the surgeon, with a sharp fall in operative time >75 cases: 26–50cases 111.5min, 51–75cases 120min, 76–100cases 77.7min and >100cases 62.5min. This demonstrated a 'learning curve' of the procedure.

Conclusions: This study demonstrated the experience required to establish proficiency in LA (75 cases), and highlighted the importance of training in the procedure for junior surgical trainees.

0367: CONCUSSION INJURY: KNOWLEDGE AND ATTITUDES OF RUGBY PLAYERS

Emer O'Connell^{*,1}, Michael Molloy². ¹University College Cork, Cork, Ireland; ²Cork University Hospital, Cork, Ireland.

Introduction: Concussion is a traumatic brain injury, resulting in the alteration of mental status with or without loss of consciousness. We aimed to determine if player gender and competition level are associated with differences in player knowledge, attitudes, concussion incidence and access to emergency care.

Methods: Five rugby teams were recruited and players invited to complete a paper-based questionnaire. The questionnaire sought information on player demographics, knowledge level, attitudes and concussion experience.

Results: 90.8% of players knew they should not continue playing when concussed. 75% of players would continue an important game even if concussed. Of those concussed 39.1% have tried to influence emergency medical assessment with 78.2% stating it is possible or quite easy to do so. Males are less likely to worry about long term effects of concussion ($\chi^2=9.23$, $p=0.026$). Club players are less likely to have emergency care at training ($\chi^2=28.2$, $p<0.001$) or matches ($\chi^2=19.47$, $p<0.001$).

Conclusions: Despite good knowledge of concussion complications and management players engage in unsafe behaviour with little difference between gender and competition grades. Information regarding symptoms and management and should be available to all players, coaches, and parents. Provision of emergency care should be mandatory at every level of competition.

0385: DISTAL FEMORAL FRACTURES: JUST A DISTAL HIP FRACTURE?

Omer Salar, Paul Baker, Lucy Maling^{*}, Gurdeep Seyan, Osmond Thomas, Devendra Damany. *New Cross Hospital, Wolverhampton, UK.*