

# ASGBI abstracts 2015

## ATMS – E-Posters

1. ATMS (pp. 2–3)

## ATMS

### Trauma & Military Surgery (ATMS) 201

#### Spontaneous Rupture of Urinary Bladder

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**Aims:** Non-traumatic urinary bladder rupture is a rare phenomenon and there are only a few scattered case reports of them in the literature. SWe report a rare case of spontaneous urinary bladder rupture.

**Methods:** Patient identified in the emergency department, clinical course and investigations and interventions followed up till successful recovery.

**Results:** We report an eighty year old gentleman from a care home with parkinsonism and dementia on long term catheterization for three years presented to the emergency department with hypotension, tachycardia, spiking temperatures of 39C, abdominal distension and anuria. There was frank pyuria in the in-dwelling catheter, even after being changed and encrustations were noted in the previous catheter without any obvious blockage in the lumen. Emergency resuscitations measures were undertaken, prior to a CT scan, which showed evidence of a thick wall urinary bladder with intraperitoneal rupture and free fluid and gas in the peritoneum (Figure 1 and 2). Lower midline laparotomy was performed, which confirmed the above findings. A three centimetre defect was noted in the superior aspect of a thick walled urinary bladder. The defect was closed primarily with 2/0 polydioxone (PDS) sutures in two layers. Post operative recovery was uneventful and patient was repatriated to the care home with his pre-operative performance status. We could not identify any clear cause of the bladder rupture, other than a chronically thickened bladder wall, hence deemed it as a spontaneous rupture of the urinary bladder.

**Conclusions:** Although relatively rare, spontaneous bladder rupture has been occasionally reported since the early 1900's. Appropriate measures should be taken, including initial ultrasonography to help exclude urinary tract obstruction and identify free peritoneal fluid. A CT scan may help in the exclusion of bowel perforation or mass, but it should not delay an immediate laparoscopy/laparotomy to confirm diagnosis and begin procedures for repair in order to prevent future sequel.

### Trauma & Military Surgery (ATMS) 377

#### 3 Cycle Audit Loop: Orthopaedic Clerking Proforma Improves the Quality of Documentation for Patient Safety

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**Aims:** The aim of the initial audit was to report a baseline in the quality of orthopaedic admission clerking, following concerns amongst junior doctors that poor documentation had implications for patient safety, compounded by frequent handover between junior doctors. A clerking proforma was introduced and subsequent audits measured compliance with standards of documentation, as well as uptake in use of the proforma.

**Methods:** A 3-cycle audit loop was performed at a single orthopaedic unit during 2012-2014. Senior house officers retrospectively reviewed clerking records for new admissions. The standards set were Royal College of Surgeons Guidelines (1994) and Good Surgical Practice (2008). Additional local guidelines were agreed by the multi-disciplinary team. Medical records were scored against the standards set and it was noted whether the patient clerking was documented using the proforma or continuation sheets.

**Results:** The initial audit (44 patients) reported an overall compliance with standards of 60%. Using the clerking proforma, compliance with standards in the 2<sup>nd</sup> cycle (12 patients) increased to 81% and this was sustained in the 3<sup>rd</sup> cycle (22 patients) at 80%. Between the 2<sup>nd</sup> and 3<sup>rd</sup> cycles, there was an increase in the use of the proforma over clerking on continuation sheets, from 52% (12/23 patients) to 96% (22/23 patients).

**Conclusions:** The importance of documentation was highlighted by the National Patient Safety Agency and this audit shows a clerking proforma has successfully resulted in quality improvement for documentation.

### Trauma & Military Surgery (ATMS) 947

#### Using GORE BIO-A Mesh for Early Closure of the Open Abdomen and its Implications in the Combative Setting: Case Series

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**Aims:** In modern surgery the "open abdomen" or laparotomy is increasingly being used in the combative field during damage control surgery. The management options for laparotomies can be summarised into closure with the help of negative pressure closure therapy, and early closure of the defect with a mesh. Previously, the only meshes suitable for use within a contaminated field were expensive biological meshes. Since the arrival of an absorbable synthetic mesh, GORE BIO-A, which is also suitable in a contaminated field, the optimal type of mesh for early closure of laparotomies has not been elucidated. We present series of 3 patients that have had early closure of laparotomies, using GORE BIO-A and their outcomes.

**Methods:** A retrospective study of patients who underwent early closure of a laparotomy with GORE BIO-A using medical notes. The outcomes and complications of each case were reviewed.

**Results:** 3 patients were identified with a period of between 6 and 12 months follow up. All 3 cases required laparotomy due to persisting intra-abdominal sepsis. In the short term, 1 patient developed a seroma post-operatively and 1 patient developed a wound infection which was treated with a vacuum assisted closure dressing. Long-term results for all of the cases were satisfactory with minimal morbidity and no signs of herniation.

**Conclusions:** Our experience shows that the use of GORE BIO-A in the early closure of laparotomies is safe and produces good cosmetic outcomes. Use of GORE BIO-A also minimises the risk of tissue reactions associated with biologics. We further propose that abdominal injuries sustained in a combative setting where a contaminated field is more likely, GORE BIO-A's sustainability for insertion within a contaminated field makes it a more cost-effective alternative to traditional biologics. Further prospective studies are required to support the use of GORE BIO-A mesh in this role.

### Trauma & Military Surgery (ATMS) 1021

#### TIME: Trauma Imaging Made Easy

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**Aims:** The general surgical curriculum requires trainees to understand the principles of diagnostic and interventional imaging, however, the competence level required in image interpretation is not clear. There are no widely available courses offering focused teaching to the surgical trainee on interpretation of plain films and cross sectional imaging. With particular attention to emergencies and trauma, surgeons must be proficient in interpreting films without absolute reliance on a radiologist; time may be critical and reports not immediately available, particularly in multiple trauma.

**Methods:** We created a course aimed at surgical trainees based on the Royal College of Radiology rapid trauma reporting system, systematically focussing on airway, breathing, circulation and disability. A 'toolkit' for interpretation of chest, abdomen and pelvis, and emergency neurosurgical trauma was provided beforehand. The course was run in the simulation centre, with created scenarios using SIM man, with images provided when asked for by the 'trauma team' (delegates). Decisions were then made as to the onwards transfer of the patient;

theatre, or CT scan. CT images were then viewed, and delegates created a rapid trauma report based on their newly acquired system.

**Results:** A pre and post course questionnaire was carried out assessing the confidence level of the participants at interpreting the findings presented on our rapid trauma reporting system. Confidence was poor in the majority of airway, breathing and circulatory issues. Post course findings demonstrated a vastly improved confidence level.

**Conclusions:** Image interpretation is an essential skill required of a surgeon, especially in the emergency setting, however, the subject receives little mention in the general surgical curriculum. We believe the curriculum should define the level of competence required, and focussed training should be provided at a higher level. A taught system will enable trainees to develop a systematic method which will minimise patient risk, and encourage lifelong engagement with radiology.