

has been proven to reduce peri-operative haemorrhage. This study aims to investigate the effect of TXA on haemoglobin levels and post-operative transfusion rates at Airedale General Hospital (AGH).

Method: A retrospective, cohort study was conducted on 25 hip hemiarthroplasty patients over a 4 month period.

Result: 10% of patients needed a blood transfusion in the TXA group of patients (n=20) compared to 60% of patients that needed a blood transfusion in the non-TXA group (n=5). The latter group also had an average blood loss of 30g/L more than the TXA group. An unpaired t-test comparing average blood loss in both groups was carried out, $p=0.445$ (95% -2.244 to 1.084) There were no documented thromboembolic events at 30 days following the use of TXA.

Conclusion: Although not statistically significant, anecdotally TXA appears to be a relatively safe drug that is associated with reduced peri-operative blood loss and blood transfusion. The data in this study advocates the need for further research with a larger sample size in an attempt to improve patient outcomes.

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0162: THE COST OF TRAUMA OPERATING THEATRE INEFFICIENCY

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Aim: The aims of this study were to characterize the causes of trauma operating room (OR) delays and to estimate the cost of this inefficiency.

Method: Turnaround time (TT) was used as the surrogate measure of theatre efficiency, with TT>25minutes considered as a delay. Factors including patient age, ASA score and presence of surgical and anaesthetic consultant were evaluated to identify causative relationships with delays. Inefficiency cost was calculated by multiplying the time wasted with staff capacity and opportunity costs, which was found to be £24.77/minute.

Result: The commonest causes of delay were delays in sending for patients (50%) and delays in patient transport to the OR (31%). 461 minutes of delay was observed in 12 days, equivalent to a loss of £951.58/theatre/day. Non-statistically significant trends were identified between length of delays and advancing patient age, ASA score and the absence of senior clinicians.

Conclusion: This study found delays in operating turnaround time to represent a sizable cost, with potential efficiency savings based on turnaround time of £347,327/theatre/year. Further study of a larger sample is warranted to better evaluate the identified trends.

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0382: DOES SPINAL FUSION AND SCOLIOSIS CORRECTION IMPROVE ACTIVITY AND PARTICIPATION FOR CHILDREN WITH GMFCS LEVEL 4 AND 5 CEREBRAL PALSY?

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Spinal fusion is used to treat scoliosis in children with cerebral palsy (CP). Following intervention, the WHO considers activity and participation should be assessed to guide intervention and assess the effects. This study assesses whether spinal fusion for scoliosis improves activity and participation for children with severe CP. Retrospective cohort study of 70 children (39M: 31F) with GMFCS level 4/5 CP and significant scoliosis. Thirty-six underwent observational and/or brace treatment as the sole treatment for their scoliosis, and 34 underwent surgery. Questionnaire and radiographic data were recorded over a 2-year period. The ASKp was used to measure activity and participation. In the observational group, Cobb angle and pelvic obliquity increased from 51 (40-90) and 10 (0-30) to 70 (43-111) and 14 (0-37). Mean ASKp decreased from 16.3 (1-38) to 14.2 (1-36). In the operative group, Cobb angle and pelvic obliquity decreased from 81 (50-131) and 14 (1-35) to 38 (10-76) and 9 (0-24). Mean ASKp increased from 10.5 (0-29) to 15.9 (3-38). Spinal-related pain correlated most with change in activity and participation in both groups. Spinal fusion was associated with an improvement in activity and participation, whereas nonoperative

treatment was associated with a small reduction in activity and participation.

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0406: IMPROVING THE CARE AND SAFE MOVEMENT OF PATIENTS WITH PELVIC FRACTURES BY DEVELOPING A LOCAL GUIDELINE AT A LEVEL 1 MAJOR TRAUMA CENTRE

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Aim: To establish whether healthcare staff were aware of any available movement restriction guidelines for patients with pelvic fractures. To generate and make readily accessible a hospital guideline to aid healthcare staff and improve care and safety of this group of patients.

Method: A review was undertaken of online hospital reference material and ward references. A sample of 20 ITU and trauma staff completed a verbal questionnaire assessing knowledge of existing protocols, whether such a guideline would be useful and what it should include. Using this feedback a guideline was developed and distributed to relevant staff. After one month, practice was re-audited assessing knowledge of the guideline and its usefulness.

Result: No current guideline was known to staff or was found within hospital reference material. Sitting up, rolling angles, end of the bed raising and traction were identified as essential points to include. Completion of the audit cycle revealed a user-friendly and pertinent protocol had been achieved. Staff reported the topics covered to be relevant and useful.

Conclusion: Introducing the guideline has improved understanding and confidence in the care of these patients by the multidisciplinary team. It now forms an integral part of their workup on admission and subsequent care.

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0457: THE TIME TAKEN TO WASH YOUR HANDS-A PREDICTOR OF ORTHOPAEDIC SUB-SPECIALITY

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It is a well-known fact that certain personalities are attracted to the different medical specialties, but can the same be said for subspecialties within a specialty?

We wondered if we could simplify the decision making process for aspiring orthopaedic trainees by recording the time taken to wash their hands and put on the surgical drapes.

The theatre management system used locally records the waypoints of a patient's journey including, 'positioned and ready' and 'knife to skin', translated as the time taken for the surgeon to wash their hands, put on their surgical gown and apply drapes.

We examined the data over a one-year period, looking at 13,437 procedures. We removed procedures such as joint injections where no skin incision made, leaving 11,579 procedures in the analysis.

The average times taken in minutes were separated into the subspecialties; arthroplasty (7.57), paediatrics (8.62), foot and ankle (8.67), spines (8.7), soft tissue knee (9.3) and upper limb (13.3), 4 minutes longer the nearest group. We propose that timing a first year registrar to wash their hands and drape a patient could indicate their future career pathway- if it takes more than 10 minutes they could be an upper limb surgeon.

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0504: THE USE OF PERSONALISED VIDEO TRAINING FOR ORTHOPAEDIC SURGEONS

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Aim: Reduced working hours and time pressures necessitate the use of technology to create novel ways of learning to achieve appropriate levels