

result is an indirect indicator of the effectiveness of early resuscitation applications.

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Fascia iliaca block, for fractured femur, in Emergency Departments

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Background: Fractured neck of femur (NOF) is a serious consequence of falls among the elderly population. It is projected that in the United Kingdom alone the incidence of fractured NOF will rise from the current figures of 70,000 per year to 91,500 by 2015 and to 101,000 in 2020. About 10% of people with hip fracture die within 1 month. However, fewer than half of the deaths are directly attributable to the fracture. The high prevalence of co morbidity in this group presents major challenges in the patient's pre and post-operative care. Studies that have looked at the delivery of analgesia in the emergency department (ED) have consistently shown that delayed and sub-therapeutic pain relief remains a problem.

Objective: To determine the effect of fascia iliaca block, on pain relief, in patients with fractured femur (neck, shaft).

Method: We did the literature search and found 11 papers to be relevant to our question.

Results: We had 3 RCTs and 8 prospective cohort studies. There were total 930 patients and pain relief was assessed between 15 min to 24 h. They also assessed the need for further analgesia (morphine). They were conducted in theatres and EDs. Total 804 patients were tested for FIB in all studies. The RCTS showed significant pain relief, in patients with FIB, up to 180 min ($p = 0.01$).

Discussion: We have traditionally been using opiates for severe pain but they don't come without side effects, especially the elderly group takes most of the blow. As discussed above, NOF fracture makes a significant number of patients presenting to ED. Therefore having a non-opiates based pain relief like FIB, makes it very useful. The above papers suggest a beneficial role of ultrasound guided FIB in femoral fractures either as an alternative or adjunct to the routinely used analgesia. Evidence suggests that the placement of local anaesthetic in the wrong plane will reduce the success of any regional anaesthetic technique. The use of ultrasound guidance will permit the identification of the fascia iliaca and neurovascular bundle. It will also provide help in the needle guidance and direct observation of local anaesthetic spread in real time. Therefore the chances of effective block are extremely high when done under ultrasound guidance.

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Correlation between hemodynamic stability and major trauma (ISS > 15)

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Background: The Injury Severity Score (ISS) is an anatomical scoring system that provides an overall score for patients with multiple injuries. Each injury is assigned an Abbreviated Injury Scale (AIS) score

and is allocated to one of six body regions. Only the highest AIS score in each body region is used. The 3 most severely injured body regions have their score squared and added together to produce the ISS score. The ISS score is virtually the only anatomical scoring system in use and correlates linearly with mortality, morbidity, hospital stay and other measures of severity.

Major trauma is commonly defined using an Injury Severity Score (ISS) threshold of 15. Patients with major trauma should be managed in major trauma centre for the best outcomes. ISS score is done retrospectively and therefore we were trying to find some basic observations, which we can relate to ISS. Objective: To evaluate the correlation between hemodynamic stability (SBP) and ISS score.

Method: We analysed the notes of last 329 patients, who met the criteria of major trauma. Settings: It was conducted at UHB, UK (level 1 trauma centre). Design: It is a retrospective study. Inclusion criteria: All adults, which triggered the major trauma tool. Exclusion: Patients with age less than 16 yrs.

Results: Total patients: 329. Systolic Blood pressure <90: 11 patients (3.34%). ISS score > 15: 230 patients (69.9%). ISS score 9–15: 55 patients (16.7%). ISS score <9: 33 patients (10%). To our surprise 11 (3.34%) patients out of 329 had systolic blood pressure less than 90 mm of Hg but 70% patients had ISS > 15.

Discussion: Physiological parameters are always crucial in the initial assessment of the traumatized patients. They help us assessing the degree of shock but how well they correlate with the anatomical injuries isn't very clear. Determining the extent of injury to a patient, either by physiological or anatomical parameters, is central to healthcare funding. Being able to estimate the severity with the help of different parameters on presentation can lead to even smooth journey of the patient. We can plan imaging, theatre or ITU beds etc. As in other studies systolic BP alone has weak correlation in predicting with trauma outcome. Our results are the same, systolic BP alone doesn't seem to have a significant correlation with injury severity score and thus predicting trauma outcome. Thus proving the point that low systolic BP doesn't always mean that it's a severely injured patient.

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Ultrasound for identification of pleural fluid in pneumonia

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Introduction: It can be difficult to definitively differentiate between pleural effusion and empyema versus infiltrate alone on plain chest radiographs of patients. However, this is a clinically important distinction that drives optimal therapy, as large fluid collections are unlikely to resolve with antibiotic therapy alone and usually require drainage.

Case report: A four-year-old male arrived for evaluation of 5 days of fever and cough. The cough was non-productive and associated with postural difficulty in breathing, which improved when leaning on his right side. Vital signs revealed tachycardia, tachypnoea, afebrile, and SpO₂ 100% at room air. Physical examination revealed an alert patient in moderate to severe respiratory distress, nasal flaring, and purulent rhinorrhoea bilaterally. Lung examination revealed a dull percussion note over the right lung field and significantly decreased air entry. A chest radiograph revealed a large area of opacity involving the right chest. The working diagnosis was right-sided pneumonia with empyema. The differential diagnosis included tuberculosis with pleural effusion. A focused bedside ultrasound revealed dense lung consolidation without significant associated fluid collection. Given this additional diagnostic

information, the management planned was altered and the intercostal drain placement aborted.

Discussion: Sonographic evaluation of the lungs is well described in medical literature and has been used in patients to assess for pneumothorax, pleural effusion, pulmonary oedema, and lung consolidation. Even in settings where advanced imaging options are available, emergency sonography has several features that make it an attractive option for the acute care provider. In the resource-limited setting, the utility of emergency sonography is enhanced, especially when other imaging modalities are unavailable or cost prohibitive. Focused point-of-care sonography is a useful adjunct to clinical examination that may augment clinical decision-making and safely avoid unnecessary invasive procedures.

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Workplace violence in emergency medicine

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Background: Workplace violence (WPV) has increasingly become commonplace in the India, and particularly in the health care setting. Assaults are one of the leading causes of occupational injury-related deaths in health care setups. Among all health care settings, Emergency Departments (EDs) have been identified specifically as high-risk settings for WPV.

Objective: This article reviews recent epidemiology and research on ED WPV and prevention; discusses practical actions and resources that ED providers and management can utilize to reduce WPV in their ED; and identifies areas for future research. A list of resources for the prevention of WPV is also provided.

Discussion: ED staff faces substantially elevated risks of physical assaults compared to other health care settings. As with other forms of violence including elder abuse, child abuse, and domestic violence, WPV in the ED is a preventable public health problem that needs urgent and comprehensive attention. ED clinicians and ED leadership can: (1) obtain hospital commitment to reduce ED WPV; (2) obtain a work-site-specific analysis of their ED; (3) employ site-specific violence prevention interventions at the individual and institutional level; and (4) advocate for policies and programs that reduce risk for ED WPV.

Conclusion: Violence against ED health care workers is a real problem with significant implications to the victims, patients, and departments/institutions. ED WPV needs to be addressed urgently by stakeholders through continued research on effective interventions specific to Emergency Medicine. Coordination, cooperation, and active commitment to the development of such interventions are critical.

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Assessing the reliability and accuracy of nurse triage ratings when using the South African Triage Scale in the Emergency Department of District Headquarter Hospital of Timergara, Pakistan

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Objective: To assess inter and intra-rater reliability, as well as accuracy of nurse triage ratings when using the South African Triage Scale (SATS) in the Emergency Department (ED) of District Headquarter (DHQ) Hospital of Timergara, Pakistan.

Methods: This is a cross-sectional study using 42 previously validated paper based vignettes. Fifteen ED nurses assigned triage ratings to each of the 42 vignettes under classroom conditions. Validation of the SATS was done using the vignettes as a reference standard. Graphical displays portrayed rating distribution and validation measures of sensitivity, specificity, overtriage and undertriage across different acuity levels.

Results: The estimated Quadratically weighted Kappa (QWK) and Interclass Correlation was found to be substantial at 0.77(CI 0.69–0.85). Intra-rater reliability with exact agreement was shown to be 87% (CI 67–100) with one category discrepancy showing 100% agreement. An average sensitivity, 70%; specificity, 97%; overtriage, 14.7% and undertriage, 21.6% was shown. The Graphical displayed showed that Very Urgent, Urgent and routine acuity levels had acceptable levels of overtriage and undertriage.

Conclusion: The SATS has been shown to be a reliable triage scale for a developing country such as Pakistan. With accuracy being acceptable in the context of Timergara, we would suggest further validation studies looking at simple ways of validating the triage scale bearing in mind the challenges facing a developing country ED.

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Neonatal necrotizing entero-colitis: A clinico-surgical study

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Objective: Necrotizing enterocolitis (NEC) is most common gastrointestinal emergency among neonates admitted to the intensive care units. Aim of this study is to assess incidence, management, outcome and prognostic factors favouring survival of NEC cases.

Methods: A prospective study on 52 cases, age between 1 and 30 days (11 full-term and 41 preterm) with NEC among neonatal intensive care unit (NICU) admissions. According to modified Bell's classification, cases were classified into 3 groups (stage I, 12), (stage II, 20) and (stage III, 20). Stages I and II treated medically, while stage III treated surgically (peritoneal drainage and/or laparotomy). All results were statistically analysed using chi-square and ANOVA tests by SPSS, v16.

Results: Incidence of NEC in our study was 8.5% with mean presenting age (8.9 days), mean birth-weight (2200 grams) and mean gestational-age (34.9 weeks). The commonest presenting feature was abdominal distension (82.7%), followed by respiratory distress (76.9%) and neonatal sepsis (61.5%). Thrombocytopenia and hyponatremia were present in all cases, metabolic-acidosis in 92.3% and CRP was positive in 78.9%. Free fluid was present in 73.1%, pneumo-peritoneum in 38.5% and pneumatosis-intestinalis in 15.4%. Medical treatment was sufficient in 20 out of 32 cases of stage I and II (62.5% survival). Between the 20 cases of stage III; 6 cases subjected to immediate Laparotomy (33.3% survival), 14 cases treated with peritoneal drainage, 4 survived, 2 cases were in need for subsequent laparotomy and survived. Stoma formation was done in 4 cases; resection with primary anastomosis was done in 1 case while primary repair was done in 3 cases. The overall survival in the study was 53.85%.