Highlights from this issue

doi:10.1136/emermed-2015-205335

Mary Dawood, *Associate Editor*

Quality care

How we care for patients with learning difficulties may vary from country to country but the evidence suggests that few emergency departments are adequately equipped to respond effectively to adolescents and young adults with Autistic Spectrum Disorder (ASD). In this issue, Lusky *et al* from Ontario describe the use of emergency services by adolescents and young adults with ASD in order to identify predictors of emergency use. Although a small study, their findings are informative, suggesting that patients with ASD are likely to attend the ED, thus there is a need to train emergency personnel to work more effectively with these patients and their carers. This is a timely piece of work and particularly pertinent for UK readers as NHS England has recently published a new set of rules called "The Accessible Information Standard". This standard details how healthcare professionals should communicate with people who are disabled in any way or have sensory impairments. Healthcare organizations in the UK will be expected to meet these standards by July 2016. Lusky's paper is a good starting point, it is well referenced and highlights many of the challenges ED's face in improving care for this vulnerable group.

When to fly

Employing scarce resources judiciously is key to achieving best outcome in pre hospital trauma care. London's air ambulance provides a doctor and paramedic team 24 hours a day to compliment London Ambulance ground paramedic teams. In such a densely populated area as London, how do the air ambulance medics judge which incidents they should respond to? Wilmer *et al* describe their study which sought to determine which dispatch methods were most effective in terms of accuracy and time in identifying patients with serious injury. They conducted a retrospective review of three years of data 2,203 helicopter activations and found that a flight paramedic using telephone interrogation is as accurate as ambulance crews' requests and both are significantly better than just the mechanism of injury. Combining MOI and interrogation identifies most of the seriously injured patients while minimising delays and over triage. So, if you have often wondered as I have how such decisions are made then read this interesting paper.

Chilling patients

It is recognised that mild hypothermia limits neurological injury and improves outcomes for patients following successful cardiopulmonary resuscitation, but what is the most effective way to cool a patient? This was the question de Waard and colleagues from the Netherlands sought to answer. They undertook a retrospective study comparing the effects of intravascular cooling in post cardiac arrest patients (n=97) in one university hospital with non invasive surface cooling of post cardiac arrest patients (n=76) in another university hospital. They found invasive cooling systems result in equal cooling speed as surface cooling but less variation in temperature during the cooling phase. They do point out that mean temperature during the maintenance phase may be associated with survival independently of the cooling system.

The heart of the matter

Chest pain is a very common presentation in emergency departments around the world and ruling out serious causes such as Acute Coronary Syndrome (ACS) continues to concern clinicians as is evidenced by two papers in this issue from two different countries.

Using a prospective cohort study, Body *et al* in Manchester aimed to validate the Manchester Acute Coronary Syndrome (MACS) decision rules with an automated h-FABP assay that could be used clinically to "rule in" or "rule out" acute coronary syndrome in the ED. The rule which incorporates heart type fatty acid binding protein (h-FABP) and high sensitivity troponin T (hs-cTnT) levels was previously validated using a semi –automated h-FABP assay but was not considered practical for clinical use. Of the 456 patients included in the study, 78 had an acute myocardial infarction (AMI) and 97 developed Major Adverse Cardiac Events (MACE). The authors conclude that their findings validate the performance of a refined MACS but recommend verification by an interventional trial prior to implementation.

In Tunisia, Boubaker and colleagues considered the need for a valid clinical score to improve diagnostic accuracy of ACS. They compared the performance of a model combining the TIMI score and a score describing chest pain (ACSDiagnostic score: ACSD Score) with that of both scores alone in diagnosing ACS in patients presenting with chest pain associated with a non diagnostic ECG and a normal troponin. They enrolled 809 patients with a normal ECG and a normal Troponin in their study. They found the ACSD score showed a good discrimination performance and an excellent predictive value which would allow clinicians to safely rule out ACS in patients presenting with undifferentiated chest pain. They recommend a larger multi centre study to validate their findings. So for now, affairs of the heart continue to exercise scientific inquiry.

Global Emergency Medicine Highlights

In this issue, we launch another new section – Global Emergency Medicine Highlights. Each month we'll bring you an abstract selected by the editor-in-chief of the African Journal of Emergency Medicine, the Annals of Emergency Medicine, and Emergencias. We are very proud to be participating in this partnership with our colleagues from Africa, the US and Spain.

Provenance and peer review Commissioned, internally peer reviewed.