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# Highlights from this issue

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## Not all trauma victims come by ambulance

This month's **Editor's Choice**, widely reported in the UK and US press, asks the question: when is a trauma victim not treated as a trauma victim? Answer: when they don't arrive by ambulance. Analysing data on paediatric trauma between 2012 and 2015 from the UK Trauma Audit and Research Network, Davies *et al* discovered that only 25% of children suspected of being victims of child abuse arrive to EDs by ambulance, compared with 44% of those with accidental injury. The suspected abuse victims were largely infants, average age of 4 months, while the mean age of victims of accidental injury was 7 years. Suspected abuse victims had a higher injury severity score (ISS), yet they reached trauma centres on average 8.2 hours later than those with accidental injury. Mortality among suspected child abuse victims was more than double. In these situations, we cannot rely on the prehospital care system to start the trauma process going; when a parent brings in a traumatised baby, a high index of suspicion and then swift activation of the trauma network is needed.

## Shouldn't all sepsis count?

Quality measures in sepsis are generally aimed at patients who have severe sepsis, or septic shock, but is anyone looking at the care of the patients without organ failure? Clearly, the mortality in this group is not zero, and about 20% of these patients progress to organ failure. So what if you included all patients with sepsis—without and without organ failure—in a quality improvement programme. Would you save more lives? Indeed you would. De Groot and colleagues applied a multi-faceted quality improvement programme to sepsis with and without organ failure in two hospitals in the Netherlands and studied the results after 3 years. Full compliance with the measures was independently associated with a two-thirds reduction in the odds of hospital mortality (adjusted OR of 0.30; 95% CI 0.19 to

0.47) compared with partial compliance. The decreased mortality occurred in patients with and without organ failure. There were an excess 76 deaths in the non-compliant groups; 45% of those who benefited did not have organ failure.

## Beyond validation: does this risk score really work?

Over the course of the past several years, you have seen in these pages a number of validation studies of various approaches to risk stratifying patients presenting to the ED with chest pain. In our June issue, we published a validation study on T-MACS (Troponin-only Manchester Acute Coronary Syndrome) decision aid, which has two cut-offs to rule out low-risk chest pain and rule in high-risk chest pain. Some of you may even recall the accompanying article on interpreting a receiver operating curve, a technique used to determine the optimum cut-offs of T-MACS scores for these two risk groups. However, it's important to realise that most validation studies, including this recent paper, are observational. No clinical decisions are actually being made based on the score; investigators are calculating the score *in the background* and seeing how well the scores and the outcomes match. The only way to actually assess the safety and impact of these strategies is to make clinical decisions based on them. The gold standard for testing is, of course, the randomised controlled study (RCT)—one group is randomised to use the rule, the other 'usual care'. T-MACS was derived from a decision aid that uses both troponin and heart type fatty acid binding protein (MACS). Body *et al* have now conducted a pilot RCT on the MACs rule and found that they were able to safely discharge more patients within 4 hours than usual care, with neither group having a major adverse cardiac event at 30 days. The sample size is too small to confirm safety, but the study shows it is feasible to recruit patients into an RCT. Enlightening insights from patients enrolled in the pilot can be found in an accompanying

article, providing some valuable lessons for conducting this type of research.

## Filling a gap for patients

Alameda County Medical Center, otherwise known as Highland Hospital, is a county hospital and trauma centre in Oakland, California, serving a population with a high rate of poverty, unemployment and violence—all factors that contribute to poorer health outcomes and more frequent ED visits. Recognising this, physicians, nurses and advanced health practitioners from the ED spearheaded a programme that put a help desk in the ED waiting room, staffed by volunteers who link patients up with appropriate social and legal resources under the oversight of social workers and lawyers. Their initial experience and outcomes are reported in this issue by Losonczy and colleagues. In a related paper, Seligman and colleagues describe a service at North Bristol Hospital in the UK that assists major trauma victims with legal issues after their injuries. This short report is the first in our new series: Swing Shift: Innovations in Emergency Medicine.

## And more

I wish there were space to write about our other papers, including the Reader's Choice, on the use—and limitations—of eFAST for detecting pneumothorax, and the systematic review on whether the timing of antibiotics in open limb fractures has an effect on infection. And I do also want to call your attention to this month's View From Here, because it is about an issue that comes up every few years in discussions on various academic list-servs—video recording for quality assurance (QA) and teaching purposes. The authors tell us how they did it. You will be surprised to discover what the barriers actually are—and how to overcome them.

