

# Highlights from this issue

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## Have you misdiagnosed delirium today?

Delirium is a common problem in patients admitted to hospital as a medical emergency and is associated with an increased risk of adverse outcome. With an aging population and increased prevalence of chronic illness and dementia we are likely to see more patients with delirium in the emergency department. Recognition and appropriate treatment can improve outcomes, but accurate identification of delirium has not been investigated as thoroughly as other treatable conditions, such as myocardial infarction or subarachnoid haemorrhage. Barron and Holmes report findings from a systematic review of studies aimed at identifying delirium in emergency care. The prevalence of delirium in the study populations ranged from 7% to 20%, although variation in selection criteria may account for variation in these proportions. Detection of delirium was often poor suggesting that we may be missing an opportunity to provide appropriate care. Limitations in the study methodologies highlight the need for more high quality research in this area.

## Colloids or crystalloids

In their commentary on the role of synthetic colloids for the volume resuscitation of critically ill adults, Williams and Parker highlight the lack of evidence that synthetic colloids provide benefit. Taking into account the potential for adverse events and the availability of the cheap, safer crystalloid alternative, they recommend that a well conducted crystalloid fluid challenge is the appropriate initial therapy in most emergency situations. Studies published since they wrote this commentary support their recommendation. The 6S trial reported that patients with severe sepsis resuscitated with Hydroxyethyl Starch had an increased risk of death at 90 days compared with Ringer's acetate. The CHEST trial reported no statistically significant

difference in death at 90 days between critically ill patients resuscitated using Hydroxyethyl Starch and patients resuscitated using saline, but more patients who were resuscitated using Hydroxyethyl Starch were treated with renal-replacement therapy. These provide yet more evidence, if any were needed, of the importance of randomised trials in emergency medicine.

## A realistic test of first aid training

Training laypeople to provide first aid in an emergency will only help if they are willing to use their skills when called upon. Awareness of barriers to the use of first aid skills has led to the addition of sessions to address these barriers as part of first aid training. Van de Velde and colleagues undertook a randomised controlled deception trial to determine whether an additional session increased the speed and use of first aid skills in a simulated emergency. They found that supplementary training did not alter the helping behaviour, although the inevitably large drop-out rate from enrolment to training to testing and the difficulties of maintaining the deception may have limited their ability to show a difference. The description of the methods and discussion of the use of deception are well worth reading. The researchers deserve great credit for their willingness to use innovative methods to answer a difficult research question, as do the participants and the ethics committee!

## What do we think of IT in the ED?

Information technology is an essential element of the modern emergency department and *EMJ* readers will undoubtedly have a range of opinions about it. A study of emergency department staff in Leicester, Leeds and Barnsley found that the most important factor in determining staff attitudes towards IT was whether

they perceived it to be useful in doing their job. Staff IT training needs to include demonstrating how the technology can be useful, not just how it can be used.

## Ballpoint pen cricothyroidotomy

According to the Papermate website the Paper Mate FlexGrip Ultra has a rubberised barrel for added control and comfort, giving it a hip, urban look and feel. There is no mention of its potential as a surgical airway (wisely, given the regulatory requirements for medical devices). Neill and Anderson evaluated the ability of nine medical students or junior doctors to perform a cricothyroidotomy in 14 cadavers using only a No. 26 scalpel and the Paper Mate FlexGrip Ultra. Just over half the procedures (57%) were successful, no major vascular injury occurred, but injuries to the thyroid and cricoid cartilages were common.

## Intubating the trauma patient with cervical spine immobilisation

The Disposcope endoscope is a more conventional medical device than a ballpoint pen. It uses a microcamera located at the tip of wire placed inside the endotracheal tube to transmit images during endotracheal intubation via a wireless connection to a portable 14.2 cm sized display screen. Park and colleagues hypothesised that this might allow quicker and more successful intubation in major trauma cases where neck immobilisation needs to be maintained. In a randomised crossover trial 68 medical interns used the Disposcope endoscope or Macintosh laryngoscope to perform intubation on a manikin wearing a semirigid neck collar. The time required to view the vocal cords and to complete intubation were both shorter with the Disposcope and a higher rate of successful endotracheal intubation was achieved.