



doi:10.1136/emered-2015-204697

Highlights from this issue

Steve Goodacre, *Deputy Editor*

Predicting admission at triage

Some patients spend a long time in the emergency department undergoing assessment to determine whether they should be admitted to hospital or discharged home. This could potentially be avoided if a quick assessment at triage accurately predicted need for admission. Cameron and colleagues used routinely collected data from 215,231 unscheduled adult attendances to derive a score based on triage category, age, National Early Warning Score, arrival by ambulance, referral source and admission within the last year. Validation of the score in a new dataset showed a c-statistic of 0.8774 (95% CI 0.8752 to 0.8796), which means that there is about an 88% probability that a randomly selected admitted patient would have a higher score than a randomly selected discharged patient. The authors highlight that the score requires validation in other settings. This might offer the opportunity to answer another question – does the score perform better or worse than an experienced clinician eyeballing the patient?

Diagnosing and treating malnutrition

Malnutrition is a common problem in older people, especially frail fallers, attending the emergency department. Vivanti and colleagues undertook a pilot trial that involved screening for malnutrition and then randomising those at malnutrition risk to receive nutritional support from an ED dietician or not, with all patients receiving regular treatment through community hospital interface programme nursing staff and community support. The trial was not powered to detect potentially important differences in key outcomes but the results suggest that a larger appropriately powered trial would be feasible.

The authors may be selling their intervention short by describing the process of case identification as screening. This suggests that the patients had no symptoms or signs of malnutrition and were in apparently good health, whereas malnutrition may in many cases have been an important factor behind their presentation. Screening in the emergency department is often inappropriate and may be unethical. In contrast, diagnosing an underlying illness, such as malnutrition, is our core business.

Supporting bystander CPR

We know that bystander cardiopulmonary resuscitation (CPR) improves outcome from out-of-hospital cardiac arrest but most victims do not receive bystander CPR. Could a decision support system, either in an automated external defibrillators or smart phone, provide visual and auditory support to assist bystander CPR? Hunt and colleagues explored this issue by undertaking a randomised trial in which volunteer bystanders in a simulated out-of-hospital cardiac arrest scenario were randomised to a voice activated decision support system or control. Those assisted by the system were more likely to follow guidelines but took longer to initiate chest compressions, by over a minute on average. This delay could compromise the effectiveness of bystander CPR and needs to be addressed before the technology is implemented.

Another use of ultrasound

Ultrasound can be used to diagnose a variety of fractures, and now fracture of the fifth metacarpal can be added to the list. Aksay and colleagues used ultrasound to investigate 81 patients with suspected fracture and compared the findings with a gold standard of orthopaedic surgeon interpretation of the X-ray. Ultrasound

detected 38/39 fractures (sensitivity 97.4%) and correctly classified 39/42 patients as being without fracture (specificity 92.9%). Whether this provides sufficient evidence to change practice will be a matter of opinion, which is often determined by how much one enjoys wielding an ultrasound probe.

Hospital and physician volume in acute pesticide poisoning

The idea that hospitals or physicians treating more of a particular pathology will provide better care seems so intuitively obvious that the case for centralising care is often made with only passing reference to the limited evidence base. Chen and colleagues provide useful data to inform this issue with their analysis of management of acute pesticide poisoning in Taiwan. They found that hospital volume and physician volume were negatively correlated with length of stay and treatment costs. This is observational evidence, so may be subject to confounding, but at least in the case of acute pesticide poisoning we have some evidence that treating more patients is associated with more efficient care.

Henna and pulse oximetry

Does henna dye applied to finger interfere with pulse oximetry readings? Zolfaghari and colleagues simultaneously measured peripheral oxygen saturation from two fingers of 100 young women, one with henna applied and the other without. No significant differences were found and the authors concluded that henna is not likely to change the accuracy of oxygen saturation measured by pulse oximetry. A similar study in 2011 (*Emerg Med J* 2011;28:783–5) also showed no significant difference with henna. I think we can now consider the matter closed.