



Highlights from this issue

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Welcome to the January edition of the EMJ. A new decade starts a time of heavy clinical activity here in the UK, but despite that workload there is still much to learn and love about emergency medicine. This month sees a range of papers to change or challenge your practice.

Which decision aid is best in Coronary Artery Disease?

I don't think there is much controversy about the utility of decision aids to risk stratify patients with chest pain, but which of those available performs best in our populations? Body *et al* have compared T-MACS, HEART, TIMI and EDACS in just under a thousand patients. Overall T-MACS was best with EDACS a close second. Both were better than TIMI or HEART. I'm happy to declare a conflict of interest here in recommending the T-MACS score as it was developed in Manchester, but now there is evidence from direct comparison in patients to suggest that this is indeed the case.

Should we give thromboprophylaxis to patients with lower limb immobilisation?

Dan Horner and colleagues have reviewed the evidence for thromboprophylaxis in lower limb immobilisation and demonstrated that the risk is about 2%. The evidence for treatment is good, and ideally combined with a risk assessment score, although the evidence for any specific score or regime is sadly lacking. The bottom line is that we should be doing this, but some advice on from your local haematology, orthopaedic and pharmacy colleagues is probably needed to choose which strategy to adopt locally. Surprisingly there is little evidence for DOACs here, although I am aware that many clinicians are using them.

Does Mechanical CPR cause Airway Haemorrhage?

Asha and colleagues have looked at the incidence of airway haemorrhage between patients treated with mechanical or manual CPR. Although the evidence for mechanical CPR is quite weak in terms of patient outcomes, it is gaining in popularity as a tool to facilitate other aspects of management, and of course to

offload the onerous task from our staff. However, concerns have also been raised about complications of mechanical CPR, and in this observational study the authors found over twice as many patients in the mainly mechanical group with evidence of airway haemorrhage. How significant this finding is, and whether the degree of haemorrhage affected outcome is unclear, but it's a reminder that new technologies need careful evaluation and monitoring for potential harms.

Does FAST still have a role in abdominal trauma?

I'll admit to being a bit of a sceptic about FAST scanning in trauma patients. It's not that I don't believe it can be helpful for some patients, it's just that I'm not convinced that every patient needs one. Our mantra in Manchester is to only do a diagnostic test if the result is going to change your management and in trauma I find that patients are either stable enough to go to CT or they are so sick (eg, with a knife in the abdo) that they are going straight to theatre. There are relatively few patients in whom the classical abdominal 4-view FAST might answer a diagnostic conundrum. Kondo *et al* have looked at this in a retrospective Japanese cohort of over 9000 patients comparing outcomes dependent on whether patients had FAST or CT first. The bottom line is that there was no difference in outcome for patients. There are caveats here of course in the study design (retrospective studies are notorious for confounders and bias), but the findings in haemodynamically stable patients suggest that FAST may have little utility in the resus room. Remember that the question of its utility in the haemodynamically unstable patients is not addressed in this paper.

What's happening with Adolescent trauma in the UK?

Roberts *et al* have interrogated the TARN database to look at the incidence and aetiology of trauma in UK adolescents (aged 16–24) and have found a rising number of cases reported in this age group. Although RTCs remain the highest cause, there is a disproportionate increase in knife related injuries which reflects my experience in Manchester. There are also worrying levels of self harm patients and

increases in mortality among those with known psychiatric illness. There are clear messages here for healthcare policy and prevention agencies to (hopefully) reduce some of these worrying trends.

Iatrogenic hypoglycaemia in treating hyperkalaemia

Readers will be familiar with the tried and tested regime of 10 u insulin and 50 mL of 50% dextrose in the emergency management of hyperkalaemia. It's been around for decades and I suspect features on every hospital regime and protocol. What of the complications of this therapy though? Is the amount of glucose proportionate to the dextrose load, or are these serendipitously conveniently easy to remember numbers? Aljabri and colleagues have reviewed 90 patients undergoing treatment to ask whether hypoglycaemia occurs post infusion and the findings were surprising to me. Roughly a fifth of patients had evidence of hypoglycaemia and one in 20 suffered severe symptoms. Interestingly the hypoglycaemic episodes could occur several hours later highlighting the need for ongoing monitoring.

Sleep deprivation in the ED

I suspect you might be thinking that this is about the sleep deprivation that we all face as clinicians, but you'd be wrong. In this paper from Prendiville *et al* in Ireland the authors looked at sleep deprivation for boarding patients in the ED. Unsurprisingly they found that patients staying overnight in the ED had a much poorer sleep experience than those that made it to a ward. Sleep is an important physiological processes, and so should be maximised, so this is yet another reason to avoid leaving patients overnight in the ED.

The good wolf

Finally, an article that will hopefully help you stop and reflect on the great aspects of emergency medicine at a time of year when, in the UK at least, we are under enormous pressure. Based on a Native American legend, Reynard *et al* argue that there is still much to be grateful for in what we do, and in whom we serve. It's a timely reminder for us all to reflect on how much emergency medicine contributes to society.

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