



Highlights from this issue

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Winter is now in full swing in the Northern Hemisphere as we deal with the continuing impact of COVID-19 combined with the usual stresses of these darker months. This month the journal reflects our current trials as we feature papers on the pandemic together with our usual mix of clinical studies.

Emergency care for refugees and global health

This month Njimen *et al* describe the impact of refugee children and young people accessing healthcare across Europe. This group is clearly vulnerable in many ways, complicated by their refugee status meaning that they may not be as visible or accessible to healthcare as we would wish. Using a survey methodology revealed several issues, with language, medical records, post traumatic stress disorder and mental health issues being highlighted as areas of particular concern. In a second paper Bruijns *et al* surveyed members and fellows of the Royal College of Emergency Medicine and found that many are involved in global health initiatives but that it was somewhat unrecognised and often personally led and financed. RCEM has a newly formed global health committee that we hope will provide support and help recognition to those who are willing and able to support global emergency medicine. I'd also recommend reading the accompanying commentary from Anisa Jafar who places the findings in the wider context of an increasing interest in global health issues within the emergency medicine community.

Air transport for stroke patients

The management of stroke has changed dramatically in the last few decades. In the UK the development of new therapies such as thrombolysis (controversial though it may be), stroke networks and improvements in rehab have radically changed the outlook for this devastating disease. Specific management of occlusive lesions takes the form of thrombolysis, and more recently mechanical thrombectomy are time

critical interventions that are not available in all hospitals, thus transfer to specialist centres is needed. Coughlan *et al* have looked at whether air transportation might be a solution for this group of patients to rapidly access specialist services. Their modelling suggests that air transport may offer clinical and economic benefits for patients assuming a 60 min reduction in time to intervention. In urban centres this may not be a realistic reduction, but for rural areas this may be an area for future HEMS (Helicopter Emergency Medical Services) development.

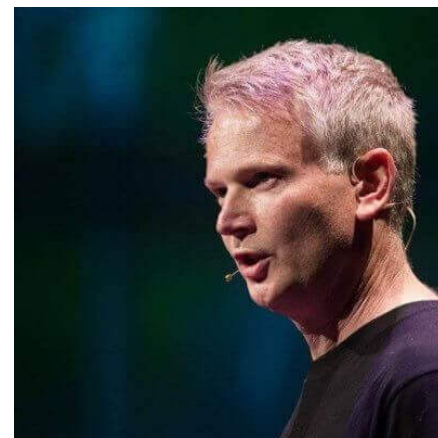
Back pain in the ED: What's the evidence?

Many EM (Emergency Medicine) clinicians find the management of the patient with back pain challenging. While we are always on the look out for the patient with serious underlying pathology (eg, cauda equina), many patients have simple mechanical low back pain. What then can we do for these patients? In this systematic review by Oliveira *et al*, the authors have sought out those interventions that have been demonstrated to be of value for our patients. There is some sound advice here on analgesic strategies and some areas where we know that therapies are ineffective (eg, corticosteroids). Sadly, despite the fact that there are many patients with this condition there is still a paucity of high-quality research to guide our treatment.

Does the QRS shape predict outcome in pea (pulseless electrical activity)?

We see a lot of papers looking at prognostic factors in cardiac arrest, but I don't recall one looking at whether QRS morphology is a predictor. In this study of over 576 patients in OHCA (Out of Hospital Cardiac Arrest) a higher amplitude was associated with successful outcomes, as was a narrower QRS complex, but not QRS frequency. As an isolated factor it's not enough to make decisions to stop/continue resus attempts, but it may be useful in

planning and prognosticating resuscitation attempts.



Does this patient have raised intracranial pressure?

One of the harder decisions I find in the resus room is in deciding whether to give mannitol or hypertonic saline for the management of raised intracranial pressure. A key problem in the decision is whether the patient actually has raised ICP at all? A recent meta-analysis in the BMJ suggested that clinical signs were poor predictors in hospital but what about in the prehospital setting? ter Avest and colleagues looked at data from air ambulance operations in the KSS (Kent, Surrey, Sussex) HEMS service and found that in 249 patients with traumatic brain injury classical signs such as Cushing's response and dilated pupils had high specificities (so we can perhaps use them to rule in raised ICP), but no clinical signs had high sensitivities meaning that we may miss a significant group of patients with the condition and thus miss a therapeutic opportunity. Clearly we need more research to help us understand and identify this condition.

Magnetocardiography in the ED

I was really interested to read this paper by Goodacre *et al* on the use of magnetocardiography in the ED (Emergency Department). Partly because it sounds like a science fiction interest and also because we know of the limitations of the traditional ECG in the diagnosis of ACS (Acute Coronary Syndrome)



in the ED. Magnetocardiography is a technique that detects magnetic fields around the heart and in this study the authors evaluated its performance in 756 patients presenting to the ED with chest pain. The results showed a reasonable sensitivity but a poor specificity suggesting that we won't be seeing this test used in the ED at the moment. For anyone preparing for exams this is a really good paper to explore from a critical appraisal perspective as the methods and results are well articulated.

SONO series case of the month

I hope you are enjoying the SONO case series in the EMJ. I've found them really helpful to take myself and colleagues

beyond the basic requirements of the RCEM curriculum and to use ultrasound in a wider group of patients. This month the SONO case looks at the diagnosis of small bowel obstruction which is one of the better evidenced and described techniques for ED ultrasound. The series is a reminder that emergency medicine is a fast moving field and that we must all keep learning to keep pace with ultrasound techniques.

What do you need to know about immune checkpoint inhibitor drugs?

There is always something new to learn and this month we have a paper describing the use of potential complications of immune checkpoint inhibitor

drugs, something that I'd heard nothing about previously. In brief, these new drugs are used to treat many cancers that have an inflammatory component. Previous studies have looked at immune mediated toxicity issues, but it now seems that antibiotic therapy may inhibit the function of these drugs as chemotherapy agents. As we use antibiotics fairly liberally in the febrile oncology patients there is a risk that this may hamper the chemotherapeutic effect. Unfortunately the paper does not provide a guideline as the evidence base is not there yet, rather it appeals for further research in this area such that we might be able to better differentiate the truly septic oncology patient from those that have fever from other causes.