



## Highlights from this issue

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Simon Carley<sup>1,2</sup>**Dental radiographs in the ED**

I expect we've all requested panoramic dental radiographs at some point or other. I also suspect that if it's for anything other than trauma then many of us will be a little lost on the interpretation. Anton Sklavos present a great review paper on interpretation that taught me a lot, especially in the diagnosis of non-traumatic infections that may require intervention. How many of us routinely look for changes in the peri-apical tissue? There is lots of useful information here on artefacts (ghosting is a thing apparently), trauma interpretation and patterns of injury too. Well worth a read even if you think you know how to interpret these films already. I'll bet that our dental/MaxFac colleagues have much to teach us.

**The overnight effect**

UK readers will be fully aware of the controversy around the purported weekend effect whereby it was alleged that patients at the weekend have poorer outcomes than those treated in the week. That has largely been refuted, but what about overnight where staffing, support and patient flow are radically different as compared with day working? In this short report Rebecca Simpson and colleagues used national statistics to show that overnight patients wait longer to be seen, wait longer in the ED, are more likely to leave and to need to return later. The patients are different too, with more non-urgent conditions presenting overnight. This all suggests that the service overnight is different, co-inciding with a decreased senior support in many UK/Aus departments (but less so in the US/Canada). Whether there is a mortality/morbidity effect is unclear, but it's certainly an area that would benefit from exploration.

**Trauma team activation criteria in paediatrics**

I spend some of my time in a paediatric major trauma centre and it's notable that the conversion rate of trauma team activation to serious injury is low, and much lower than in adults. There are many potential reasons for this but there is no doubt that over-activation is a problem as it typically disrupts work in the rest of the hospital. Jen Pek and colleagues looked at developing new criteria to identify those patients who really need a full trauma team response. In a department

that sees 170 000 kids a year (you read that right) they used a retrospective design to identify a GCS<14, a GCS motor component of <6, high risk mechanism of injury or age specific tachycardia as significant factors requiring full activation of the trauma team. These obviously need to be tested in different settings and prospectively, but they may be a step forward to a more balanced approach to trauma calls.

**It's getting busy in France too**

Helene Colineaux and colleagues ask the question to which I suspect we all have an answer... 'Why are more people coming to the emergency department'. Write your answer down now and then read the paper. This is a huge study looking at over 7 million attendances and the findings will not please the politicians. Low acuity attendances do not account for an overall increase, rather it is the intermediate and higher risk patients who have increased. There's not much point in telling people not to come with minor conditions if that is not the problem (any politicians listening here?). The reasons why are unclear from their data but fit with my experience in Manchester. There are more patients and they are sicker, but why is that? Is it age, austerity, climate change, support, co-morbidity, social or something else entirely?

**Advanced airway management in out of hospital cardiac arrest (OOHCA)**

No doubt you will be aware of the results of the Airways-2 trial that showed no benefit to intubation over supra-glottic airways in OOHCA, but few of those patients arrested in front of the clinicians treating the patient. What should we do if we are right there at the point of arrest? In this registry paper from Korea, Jeong Park and colleagues asked just this question and found no evidence to support advanced airway management (AAM). In fact the lowest survival was in patients who had a witnessed arrest in the ambulance treated with AAM. However in Korea, AAM includes intubation and supra-glottic airways. I'm always cautious with drawing firm conclusions from registry studies as bias and confounders are common and this cannot explain why this effect is seen. This study supports the idea that basic airway management is fine as an initial approach in OOHCA (though I do like supraglottics myself as early as possible).

**Personal ethics on participating in prehospital trials**

Even if a trial has been deemed ethical and required owing to clinical equipoise does that mean that everyone will be happy to recruit and take part? Possibly not as this study from Karl Charlton and colleagues shows. The recent Paramedic-2 trial looked at the use of adrenaline (epinephrine) in OOHCA. Some patients received placebo which presented an ethical challenge to some paramedics. We've seen similar in other trials looking at tranexamic acid, steroids and troponins. It seems that we need to understand and reflect on the influence of the individual perspective if we are to engage as many people as possible in prehospital research.

**Process conformance in intubation**

I'm a bit of a fan of checklists for high risk procedures such as intubation in the ED. Not everyone agrees with me though, some seem to think that it's an unnecessary delay and a little bit pointless. In this paper from Karen O'Connell and colleagues they show that in intubation attempts where clinicians followed the checklist/protocol there were fewer adverse events, rather implying that they work. Overall a third of intubations had an adverse event (a bit high?) and the only factor predicting a lower odds of this was conformance to the process model. Bottom line for me is use the checklist.

**Image challenge**

Don't forget to try out the image challenges this month. One of the cases has a rather bizarre footballing injury, not at all what I expected. I know football is dangerous at times, but this case is crazy.

**Triaging triage**

Lastly we have one of the new quality improvement reports (QIP) published in this month's journal. Ahkay Kumar and colleagues' project provided a dramatic reduction in times to triage in their department in Delhi. It's a good example of QIP methodology being used to improve a key process in emergency care. If you're preparing for FRCEM it's worth a read, and if your triage times are too long at the moment then there are several tips here to speed things up.

