# Highlights from this issue

doi:10.1136/emermed-2018-207955

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## Fluid therapy in emergency medicine (EM)

Fluid therapy is one of the most commonly prescribed therapies in the emergency department (ED). We all do it, we all have opinions on it and we've all read a whole bunch of contradictory and opinionated information on the pros and cons of the various different sorts of wet stuff available to us. In practice the world does seem to be divided into those who are obsessively compulsive or dogmatic about their fluid choices vs. those who are happy with a bit of 'wet stuff'. Clearly the sensible position is somewhere between these extremes such that we can match our fluid strategies to the patient and their pathology. Tim Harris and colleagues have come together to shine light on the evidence, the physiology and the decision making that we should all be expert in, so this is a must read article. In brief, the use of crystalloids is advocated for non-blood resuscitation with some preference for balanced solutions. You may be surprised at just how abnormal the solution known as normal saline is! As for how much, how quickly and when to stop then that is more complex and perhaps an area where we need to upskill in order to more reliably quantify a patient's response to therapy. In a paper led by Tim Harris (*see page 511*) you will not be surprised to hear that ultrasound may well have a role here.

## IV cefazolin vs oral probenecid vs oral cephalexin in skin and soft tissue infections

It's great to see a well conducted randomised controlled trial in the journal this month, especially one that challenges the practice of IV therapy for skin and soft tissue infection. In this non-inferiority trial Dalen *et al* demonstrate that oral cephalexin is an appropriate alternative to probenecid or IV cefazolin (*see page 492*). If that helps more people get treated at home, then that's good for them and also for our overcrowded hospitals.

## Do you remember that patient with the abdominal pain…

If you are like me then you will have experienced that slight anxiety in discharging patients with a diagnosis of NSAP, or Non-Specific Abdominal Pain. Why the anxiety? Probably because we all know of patient who bounce back with more serious pathology. It happens, but for a long time there was little we could do about it. On the one hand we can't admit everyone with non-specific findings and on the other we are worried about missing something significant. In my own practice we have the opportunity to bring patients back to a clinic within a few days for follow-up and further assessment. What do we know of the effectiveness of such follow-up strategies though? This month Boendermaker *et al* look at the outcomes for scheduled NSAP patients returning to a clinic within a few days (*see page 499*). They found a significant change in management in just over a fifth of patients with CRP on initial visit being the best indicator of a change in diagnosis or treatment. Despite the relatively high number of changes to practice this sort of service still has potential benefits for patients and health economies and is something I suspect will spread to other units.

## Should we use exercise testing more for our cardiac patients?

There was a vogue for using stress testing among ED patients some years ago, but with the advent of high sensitivity Troponin testing combined with better risk stratification it seems to have declined within the ED stay, but what about patients that we send home? Should we be following them up with out-patient testing? Cook *et al* in Canada followed up on a cohort of over 4600 patients, several of whom had significant adverse events if they did not have out-patient testing (*see page 486*). Whether it is applicable to all we don't know yet, but it's certainly something that we should consider for our high risk patients.

## Patch testing for syncope

Matthew Reed has an impressive track record of academic work looking at the investigation and management of syncope and so it is very interesting to read a pilot study looking at the detection of arrhythmias in patients presenting to ED following syncope through the use of ambulatory monitoring (*see page 477*). Although a pilot at this stage the findings suggest that we need to look at this more closely with 1 in 10 patients being identified as having a clinically important diagnosis on monitoring. Syncope patients always worry me as we often discharge without a firm diagnosis and so further evaluation may well be underutilised in many current systems.

## Stroke deterioration

We've all seen patients who deteriorate after initial assessment. In our Neurology patients that deterioration may represent a secondary event and/or a failure to address preventable injury. In a large database study from the USA researchers have shown that 12% of patients with suspected stroke deteriorate within the prehospital window (*see page 507*). The question remains about what sort of interventions are possible within this time period that might improve the outcome for these patients.

## Predicting admission in the Netherlands

We get a lot of papers looking at tools to predict events such as admission, death or ICU stays which reflects one of the key roles in emergency medicine, that of predicting the clinical course (and then hopefully improving it). This month we have a paper from the Netherlands that looks to derive a model to predict admission from first contact in triage (*see page 464*). Age, Triage category, Arrival Mode and Main Symptom predicts, which is perhaps to be expected. The challenge is how do we use this data to improve patient outcomes.