

## CT for appendicitis

In our June issue, Jerry Baskerville presented a powerful argument for considering the risks of radiation involved in multi-detector computed axial tomography (MDCT). In this issue, Kim and colleagues present a flipside to the argument. They used MDCT to evaluate 157 patients with suspected appendicitis and found that 20 out of 75 with clinically evident appendicitis had negative MDCT, 19 of whom successfully avoided surgery. Meanwhile, 40 out of 86 without clinically evident appendicitis had positive MDCT, of whom 38 underwent operation with only one negative appendectomy. These findings suggest that MDCT could reduce the risk of negative appendectomy. A controlled trial could confirm this potential, while modelling would help determine whether the potential benefits justify the costs and radiation risks (*see page 477*).

## Ultrasound for abdominal pain

Emergency physicians will be familiar with debate over the use of diagnostic ultrasound by non-radiologists. Lindelius and colleagues evaluated whether the accuracy of diagnosis of patients with acute abdominal pain improved when surgeons who had received ultrasound training used their newly acquired skills. They found that the initial diagnosis was correct in 65% of cases when ultrasound was used, compared to 57% when it was not used. It would be interesting to know whether this improvement led to changes in management, length of hospital stay and patient health or satisfaction. But first, let's pause to applaud the researchers for recruiting and randomising 800 patients. Anyone who has tried to undertake a randomised trial will appreciate what a challenge this was (*see page 486*).

## Identifying EMI

Those of us who thought EMI was a record label that incurred the wrath of the Sex Pistols had better think again. Evolving myocardial infarction (EMI) describes the patient with initially normal troponin when they present to the emergency department, who is subsequently found to have an elevated troponin by 12 hours. Identifying and treating these patients at an early stage is obviously important and as Miller *et al* report, this does actually seem to be happening. Out of 4136 patients with undifferentiated chest pain, 5% had EMI, 8% had established non-ST elevation myocardial infarction (NSTEMI) and 87% had no myocardial infarction. Patients with EMI had similar presenting features to those with NSTEMI and seemed to be appropriately identified and treated by physicians (*see page 492*).

## Web-based resuscitation recording

Those of us who struggle to recall how many doses of adrenaline we have given during resuscitation are always grateful to find that a helpful member of the team has recorded progress on a whiteboard. But the relentless march of the computer to condemn the whiteboard to the dustbin of history continues apace. In a randomised evaluation, Park and co-workers have shown that a web-based system for recording resuscitation events reduced timing errors but did not alter the number of recorded or omitted errors. Their system is at [www.writecpr.com](http://www.writecpr.com) but requires login (and fluency in Korean) (*see page 506*).

## General practitioners and out-of-hours emergencies

General practitioner (GP) involvement in out-of-hours emergencies is becoming

increasingly uncommon in the UK, but remains important in Norway. A survey of 3804 GPs (of whom an impressive 78% responded) found that around two thirds took part in out-of-hours service. They reported experiencing a wide range of emergencies, but many of the emergency skills required were only infrequently used over the course of the year. As ever, training to maintain competence in emergency skills is a challenge (*see page 528*).

## Potassium levels on the blood gas sample

If you spot an abnormal potassium result on the blood gas sample do you act on it or wait for confirmation of the laboratory result? Jose and Preller report that around half the doctors they surveyed would act on the blood gas result while half would await confirmation. Yet their analysis of 529 paired results showed that 95% of pairs fell within the difference limits of 0.5 mmol/l, so substantial discrepancies are likely to be uncommon. Despite this, they pragmatically conclude that if the blood gas result does not fit the clinical impression then sampling or analysis errors should be considered and the test repeated (*see page 510*).

## D'oh!

This month's "oops" award goes to the anonymous emergency department whose doctors sutured the head wound and discharged a man who reported being stabbed in the head with a knife. Our hero attended Barnet Hospital 11 days later where Chalkley and colleagues found evidence of a knife track penetrating the left cerebellar hemisphere on CT and MR imaging. Fortunately he seems to have suffered no ill effects, other than a rather nasty headache (*see page 539*).