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Highlights from this issue

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Ian Maconochie, *Deputy Editor*

Weekend working

This is a controversial area in the setting of UK healthcare practice. Claims have been made about patient safety being affected disproportionately during the weekend in comparison with the rest of the week. This paper looks at ED working and has an important commentary to accompany it. The editor has also made a podcast which is definitely worth listening to! <https://soundcloud.com/bmjpodcasts/that-old-weekend-effect>

Temperature management in an adult ED: Oral, TM and Temporal artery v rectal temperature

Temperature regulation is maintained in the pre-optic anterior nucleus of the hypothalamus, the 'gold standard value' in physiological animal models being recorded at the arch of the aorta. However, in ED, this is a little difficult to obtain!

Temperature is one of the 'vital signs', and remains part of the routine assessment of most patients. Surprisingly, temperature measurement is still undergoing scientific investigation albeit that the first use of thermometers in humans (by Santorio Santorio) was in 1612.

This paper takes as a gold standard, the rectal temperature and compares it in 3 other sites, namely the tympanic membrane (TM), oral and the temporal artery (TA) temperatures, looking at patients who have fever. TM is most accurate at picking up rectal temperatures above 37.5°C, that TA and TM are about the same in their ability to pick up rectal temperatures of 38°C. The mean differences and standard deviations for Oral, TM and TA were -0.5 (0.6), -0.3 (0.4) and 0 (0.6) degrees centigrade from the recorded rectal temperature. Heat loss from the body occurs by conduction, radiation and convection, and it is not uniform over the body, i.e. there is regional variation, e.g. sweat glands are most numerous in the fingers and lowest on the upper lip, 530 glands per cm² as compared with 13 glands per cm². So the differences in

rectal, oral, TM and TA temperatures are not unexpected. Overall trend is generally of more value to clinicians.

Appendicitis

This vestigial organ still causes a lot of trouble, especially in the paediatric population. The search for definitive measures are still elusive-in this issue, there are 2 papers that look at ways to assist clinicians by means of tests and/or in combination with scoring systems.

The first shows that, although there is neuroectodermal tissue in the appendix, which should increase the secretion of its 5HAA in response to inflammation, its measurement does not help at all in differentiating patients without appendicitis from those with it.

The second by Versic *et al* combines white cell count, C-reactive protein and calproectin (an intracellular calcium binding protein) making an aggregated figure. A low figure was deemed to enable clinicians to rule out the appendicitis owing to its high sensitivity. The utility of this figure is questionable in very early phases. The Alvarado score (AS), comprising signs, symptoms and laboratory values including white cell count was also tested with the figure, and improved the diagnostic accuracy in low risk patients as determined by AS system.

Writing in the ED

Two articles look at very practical aspects of ED management, that of discharge summaries and if they declined in quality owing to shorter ED patient stays being introduced, and the question 'is it cost effective to have a medical scribe on the shop floor?'

The first had 10 components of a discharge summary that needed to be present for it to be adequate, namely:

Patient information, discharge date/time, discharge diagnosis, treatment information, treatment complications information, procedure information, procedure complications information, investigation results information, ongoing care for

primary care provider, ongoing care information for patient, discharge medication information and next medical review. Summaries before and after the introduction of 6

hour target in New Zealand (in 2009) were studied. There was no difference in discharge documentation quality, with a trend towards an improvement in their quality. Medical scribes are used in the USA and may have improved clinician productivity by 13–20%, but the cost of any training scheme to make a competent scribe has not been determined until now in this paper from Australia.

Ten scribes underwent a one month course, followed by pre-work training sessions and clinical shifts for 2–4 months (one shift per week), being trained by ED clinicians. The duration of training ranged from 68–118 hours after the classroom based teaching. There was an estimated 4% increase in clinician productivity. The overall cost for teaching to make a competent scribe was USD \$6371.

Community based perceptions of emergency care in Zambian communities lacking formalized emergency medicine systems

This qualitative work focuses on the health needs of communities in Zambia, identifying barriers and obtaining community generated solutions. The key messages are that low cost steps such as educational initiatives in the community, enhancing prehospital care, having triage systems in place in the ED and training healthcare providers in emergency care would have significant impact. The authors should be congratulated for producing this important paper that allows the voice of healthcare users to be heard, with the hope that it can influence the development of healthcare services in Zambia.

