

PRIMARY SURVEY

Pete Driscoll, Joint Editor

Be prepared—there is much in this issue. Many aspects of emergency medicine are addressed that will take time to consider. However, I would ask you to begin by taking five minutes to read Hodgetts' "A day in the life" experience from the latest Gulf war. It puts our own "bad days" into context.

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Anaphylaxis, stings, and electricity

If you had a systemic allergic reaction to jack jumper ant would you volunteer to have the insect attached to your forearm for a minute so it could sting you? Brown *et al* found 68 otherwise healthy volunteers as part of their experiment looking at ant venom immunotherapy. In this article they review the 19 patients who developed anaphylaxis. Invaluable clinical information is provided on the physiological effect of anaphylaxis and implicates a neuro-cardiogenic mechanism in some lethal reactions. In addition, the authors rekindle the issue of intravenous administration of adrenaline for treatment of anaphylaxis. This topic is discussed further in Tony Brown's editorial. Together the articles will cause readers to review their current management of this rare but life threatening emergency condition. The consequences of falsely diagnosing an allergic response are addressed in Goodyear *et al*'s case report. The authors describe a patient with an infective periorbital swelling being misdiagnosed as an allergic response. A useful table highlighting the differences is provided.

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Another type of sting is considered in Bleetman's overview of electronic weaponry. In response to the perceived threat of violence, police agencies are reviewing non-lethal weapons to fill the gap between baton and gun. One such weapon is the Advanced Taser, which can generate a peak voltage of 50 000 volts. The review describes the emergency medical implications including electrocution, burns, barb strikes, and indirect injury. Interestingly, this is based on about 30 000 uses of the weapon on volunteers!

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Medical management in the resuscitation room

Managing the critically ill medical patient continues to be an important aspect of our work. Most departments will be dealing with these complex patients several times a day. An increasing number of trainees are therefore considering joint accreditation in intensive care and emergency medicine. For these readers, Brown's article will help shed light on what such a linked job can entail.

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A common problem we deal with is the breathless, heart failure patient. Various non-invasive ventilation modalities have been discussed for some time but which really work? To help answer this Crane *et al* present the results of the first emergency department based study. They compared standard therapy with two hours of CPAP and standard therapy or bilevel non-invasive ventilation and standard therapy in 60 patients with acute pulmonary oedema. They found the CPAP group was more likely to survive to hospital discharge. This is an interesting result—particularly as bilevel ventilation produced the most physiological improvement initially. The authors correctly advocate the need for a larger study base on survival rather than intubation or short term physiological improvement to determine if these ventilatory modalities really do save lives.

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Another frequent attendee to the resuscitation room is the patient with a ST elevated myocardial infarction. Leah *et al* demonstrate that it is possible to reduce door to needle time by a mean of 10.5 minutes in a district general hospital using a bolus thrombolytic. They do however point out that this statistically significant result may not necessarily be of clinical importance. A crucial factor to take into account is how long the patient has had the pain. As the authors point out, bolus thrombolysis may improve a Trust's "league table" position but may not be cost effective in terms of clinical benefit for the patient.

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Clinical diagnostic centres (CDUs)

Harden *et al*'s article comes at a very useful time. The issue of CDUs is very topical as Trusts try to find ways to achieving government targets with the limited bed numbers. The researchers carried out a retrospective analysis over a 16 day period in a large university teaching hospital. Using protocols from Detroit and Cincinnati they found 16 beds could be saved per day. However, to enable the CDU to be able to receive patients at least 85% of the time they calculated that it needed to have 10 beds. Readers considering developing CDUs will find this article particularly helpful in estimating its potential size and impact in their own hospitals.

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Prehospital decision making

Readers will be well aware of the changes going on with respect to out of hours care. Some of the many solutions voiced have been extending the role of the paramedics or prehospital nursing staff to deal with these patients. A key element in this process is selecting patients who can safely be at home. Snooks *et al* have carried out a comprehensive review of the literature on alternatives to ambulance personnel who attend patients who do not apparently need hospital care. They found that there is a lot published but little evidence for a clinically safe way of identifying such patients. Indeed all the preliminary studies being conducted currently advocate caution because of the risks involved. Wardrope *et al* follow on this theme with the second in the series of ABC of community emergency care.

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This concern for decision making is addressed in Robertson-Steel's assessment of the impact Reforming Emergency Care document has had on the ambulance service. He also describes the future implications in the light of the changes in prehospital medical cover. Advocating that the ambulance service could take over the role of integrating health care and be custodians of the electronic patients' record. They would be able to prioritise patient's needs and direct them to the most appropriate resources.

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