Highlights from this issue

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A path to effective emergency medicine research

In this commentary an experienced investigator highlights the increasing costs, challenges and bureaucracy associated with undertaking 'traditional' models of research in emergency medicine-related topics (***see page 1004***). He argues that because emergency physicians (and this editor adds, prehospital clinicians) are generalists with respect to their clinical interests they might instead choose to become methodological specialists.

New outcome measures for trauma

Regional trauma networks continue to be rolled out across the UK but evaluation of their effectiveness could arguably be enhanced beyond currently available mortality data (***see page 1008***). In this issue Sleat *et al* describe a literature and database review to determine what data are collected in international systems. Surprisingly, they discovered that morbidity data were only routinely collected by one state-level monitoring system and indicate the opportunities this presents for the UK trauma networks.

Predicting repeated self-harm

This study of patients admitted to a large Scandinavian emergency department following deliberate self-harm over 2 years reports a re-admission rate of approximately 25% (***see page 1019***). Risk factors associated with readmission included, perhaps not surprisingly, current psychiatric status and a history of substance misuse, but also self-injury, particularly if this involved a 'surgical procedure'. The paper includes a useful risk stratification model for repeat admission.

Validation a novel triage tool

The need to triage patients attending emergency departments in Taiwan is as great as it is in western countries (***see page 1026***). The authors of this paper compared a new five acuity level computerised system with four level nurse-led triage in over 10 000 patients in 22 hospitals. They report that the new system reliably placed a greater proportion of patients into lower triage categories than did nurses, with concomitant reductions in utilisation rates of medical resources, admission rates and lengths of stay.

Triage: a painless exercise?

This study compared triage categories derived using the emergency severity index (ESI) with vital signs scored using the Worthing physiological Scoring System and a numerical rating pain scale at the point of admission of patients to an emergency department in The Netherlands (***see page 1032***). Although an association between ESI and Worthing physiological scoring system assessment was found, the authors make the important observation that the ESI categorisation is not influenced by the level of patient-reported pain.

Procedural sedation - predicting complications

It is widely recognised that procedural sedation carries with it the potential for harm to patients: this prospective study sought to identify the risk factors associated with the complications that occurred in a number of urban teaching hospitals (***see page 1036***). Unsurprisingly, deeper levels of sedation and performance of procedures at night were associated with increased complication rates, and the authors make a plea for appropriate training, equipment and staffing levels to be available 24 h/day.

Can salivary predict ventricular arrhythmias?

This small study measured salivary α-amylase in patients admitted with ST-segment elevation myocardial infarction and reported statistically significantly higher levels in patients who subsequently developed ventricular tachycardia or fibrillation (***see page 1041***). The limited number of patients enrolled mean that these results are by no means conclusive, but as the authors reasonably suggest they may justify a larger prospective study.

The next wave?

Elsewhere in this issue Regan *et al* describe the symptom profile of patients admitted to emergency departments following the consumption of mephedrone (***see page 1055***). Mark Durham's paper suggests that the new substance of choice following the criminalisation of mephedrone possession and use may be 'ivory wave' (***see page 1059***). He describes a case encountered in the prehospital setting and briefly reviews the relevant literature.

Patient assessment during CBRN incidents

Accurate and safe patient assessment in the prehospital setting is challenging, and the difficulties are magnified many times over when the clinician is wearing a chemical, biological, radiological and nuclear protective suit. Regardless, checking for the presence or absence of breathing is a fundamental step in triaging large numbers of patients to assign a triage category correctly (***see page 1061***). Michael Malpas suggests a common-sense approach to addressing this issue.

Prehospital ultrasound

This small study tested the hypothesis that abdominal aortic aneurysm and extended focused assessment with sonography in trauma emergency ultrasound examinations could be performed in a stationary or moving land ambulance to a standard consistent with those performed in an emergency department (***see page 1063***). While its findings were positive, it should be noted that those carrying out the scans—two sonographers and two consultant emergency physicians—do not form the normal crew of a UK emergency ambulance. Further work may be justified to see if any of these skills can be acquired and maintained by paramedics, but first a clear case of clinical benefit is required to justify the cost of making adequate quantities of ultrasound equipment available in the prehospital setting.