Highlights from the issue

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Mary Dawood, *Editor*

Nuclear power plant accident

As emergency clinicians we all have a duty to undertake regular chemical, biological, radiological and nuclear (CBRN) training in addition to major incident training. We do this training in the hope that we will never experience the reality of a CBRN incident like our colleagues in Japan. In March 2011, the Fukushima Daiichi Nuclear Power Plant suffered a series of radiation accidents after the Great East Japan earthquake and subsequent tsunami. This CBRN incident of potentially catastrophic proportions was caused the failure of the containment cooling system leading to a meltdown and a hydrogen explosion within the reactors. As delaying restoration work posed a serious risk to the entire country, the priority was to strengthen the emergency and disaster medical system as well as radiation emergency care for staff at the frontlines working in an environment that was at risk of large scale radiation exposure and secondary disaster. This paper by Morimura *et al* describes the response of the Japanese Association for Acute Medicine not only with respect to radiation and disaster medicine but how they worked with other organisations to ensure decontamination, treatment and safe transfer to radiation emergency medical centres. This paper makes for sobering reading but I urge you nonetheless to read it as it knocks open the door of reality and brings to life the complexity of a CBRN event, the need for a competent response and the importance of training.

New roles or new approaches?

Emergency department (ED) crowding and workforce issues are global problems which are seemingly resistant to conventional solutions. Emergency medicine has developed significantly in recent years with many presentations needing time-critical procedures and greater emphasis on the resuscitation, stabilisation and initial management in the ED. As a result we need to think more creatively about developing staff to meet the needs of our patients safely and more effectively. I was interested to read two papers in this edition which describe such initiatives. The first paper, a retrospective cohort study from Taiwan describes how the introduction of clinical assistants in the ED led to a decrease in the number of patients who left without being seen and

also a reduction in waiting times and greater patient satisfaction. In this study by Huang *et al* the clinical assistants were assigned to different emergency physicians with the primary task of managing the flow of incoming patients, informing patients of expected waiting times and calming anxious patients, much of which the nurse in charge in UK departments already does in addition to other nursing responsibilities. Nonetheless the paper gives a different perspective and highlights the need to explore other avenues to address not only overcrowding but also the unrelenting pressure on emergency physicians.

Moving from East to West, the second paper from Ireland by Cummins *et al* describes a prospective study comparing the diagnostic decisions of advanced paramedics with emergency physicians. Developing competence in the pre hospital setting is just as pertinent to patient outcomes as in the hospital setting. This study found that the diagnostic decisions of the advanced paramedics were concordant with emergency physicians in 70% of cases. The advanced paramedics were equally concordant with emergency physicians in predicting hospital admission in 70% of cases. So, to those of you tasked with resolving workforce and crowding issues there are solutions but you need to be receptive and creative in your thinking. Read these two papers with an open mind and you may find the seedlings of solutions to seemingly resistant problems.

A booster may be needed

Tetanus, an acute and often fatal illness is now rare in the developed world thanks to large childhood immunisation programmes, thus, most clinicians in emergency medicine may never to diagnose a case of Tetanus. Nonetheless lifelong immunity should not be taken for granted, several groups within the population, the elderly and refugees, particularly children from war torn countries remain at risk of inadequate immunisation coverage. A study by Moughty *et al* in the West of Ireland using Protetanus Quickstick to screen a convenience sample of 216 patients attending their ED found a significant reduction in immunity with increasing age in both men and women. Those non-immune tended to be older with mean age of 66 years compared to mean age of 46 for immune.

So, no time for complacency, think again with the older patient, they most likely need a tetanus toxoid booster. This also begs the question should we more often screen for immunity in cases of uncertainty rather than vaccinating as a precaution? Worth considering.

Is it time for a pragmatic approach to witnessed resuscitation?

Despite being first mooted more than 25 years ago, family witnessed resuscitation remains very sensitive if not contentious issue in some settings. Whilst it is widely accepted in Paediatric practice it remains controversial in adult practice. This was endorsed in a study by Belpomme *et al* in France which found that pre-hospital emergency teams supported the concept of family witnessed resuscitation but were not ready to offer it systematically to relatives. The main reasons put forward by nurses are fear of causing psychological trauma to relatives and by physicians, the distraction and stress caused to the team during CPR. This paper was in sharp contrast to a descriptive paper from helicopter emergency service (HEMS) 'An injured climber' where McQueen *et al* describe the rescue of a young man who had fallen 25 feet from a mountain ridge while climbing in the Peak District. In this incident there was no question of the patient's climbing companions not being involved, rather they were briefed by the pre hospital doctor regarding the plan to carry the patient on the scoop down the mountain to a safer place to perform rapid sequence intubation. The most experienced climber in the group was tasked with acting as a spotter for the team and handled all the safety ropes that had been arranged. This case not only highlights the challenges of rescuing patients with time critical injuries in hostile environments but also the value of using all available resources, in this case companions, in a safe and organised way. The patient was successfully intubated and transported and despite a base of skull fracture and a cerebral contusion this young man made a full recovery thanks to the multi-skilled team involved in his rescue. Whilst these contexts are different, there is a lot to be said for the pragmatic response and having no choice.

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