

# Highlights from this issue

doi:10.1136/emmermed-2012-201792

Ian K Maconochie, *Editor*

## Prospective cohort study a clinical diagnosis of severe sepsis or septic shock

Thenar muscle tissue oxygen saturation (StO<sub>2</sub>) on arrival in the emergency department (ED) and its change with usual ED sepsis management was measured using near-infrared spectroscopy, and a follow-up measurement was obtained after 24 h of treatment. All surviving patients were followed up for 30 days. Forty-nine patients were included and 24 died. There was no difference in mean StO<sub>2</sub> on arrival in the ED between survivors and non-survivors. After ED treatment, mean StO<sub>2</sub> of survivors improved significantly to 78% while StO<sub>2</sub> remained persistently low in non-survivors. Persistently low StO<sub>2</sub> (<75%) despite initial resuscitative treatment was associated with a twofold increase in mortality (*see page 699*).

## Remote specialist assessment by telephone of intravenous thrombolysis for acute ischaemic stroke

The study was a retrospective cases series from three EDs within a single stroke service in the north of England, which compared the process, efficacy and safety of intravenous (IV) thrombolysis for acute ischaemic stroke as delivered by remote specialist support or with routine practice. The study took place between 6 September 2007 and 1st October 2010. Of the 192 patients receiving IV thrombolysis, 94 were managed remotely. The clinical outcomes of treatment were similar whether assessment was performed after a specialist review in person or via a telemedicine service consisting of emergency department staff training, telephone consultation and remote review of brain imaging by a stroke specialist (*see page 704*).

## To resuscitate or not to resuscitate: a logistic regression analysis of physician-related variables influencing the decision

This is a questionnaire survey of 204 physicians from departments of internal

medicine, anaesthesiology and cardiology in 11 hospitals in Israel. The results showed that one in five had forgone resuscitating a patient they did not previously know without additional consultation. Physicians, who more frequently elected to forgo resuscitation, had practised medicine for >5 years. This group estimated that the number of resuscitations they had performed was higher than that performed by others and regarded their experience in resuscitation as sufficient.

The variable found to determine 'Always performing resuscitation' was that the physician had <5 years of experience in medicine (*see page 709*).

## Prospective factors of bacteraemia in the low-risk febrile neutropenic patients

This group looked at febrile neutropenic episodes in patients with solid tumours or lymphoma managed in an emergency department from June 2009 to May 2010 in Seoul, Korea. Procalcitonin, tachypnoea and performance status were predictive of bacteraemia in the low-risk febrile neutropenic patients. If the patient had a high probability of bacteraemia, the patient could benefit from parenteral antibiotic therapy while awaiting the blood culture results (*see page 715*).

## Emergency clinicians' attitudes and decisions in patient scenarios involving advance directives

This was an online questionnaire distributed to fellows and trainees by the Australasian College for Emergency Medicine from May 2010 for 6 weeks. It included three scenarios in which patients presented with challenging medical and ethical problems. This study showed that for a large proportion of responding emergency clinicians, previous education about advanced directives was inadequate. Clinicians' perceived ethical obligations,

patient comorbidities or sufficient documentation were most influential in reaching a treatment decision. In each of the scenarios presented, legal factors were taken into consideration by almost half of the respondents; however, ethical and patient considerations were consistently listed as more important in most cases (*see page 720*).

## Older people presenting to the emergency department after a fall: a population with substantial recurrent use of healthcare

Of 18 902 all-cause ED presentations, 17.0% were due to a fall. Over one-third of these subjects had presented one or more times to the ED. One-fifth had had one or more hospital admissions in the preceding 12 months. Falls led to hospital admission in 42.7%. The majority received acute care only (length of stay—14.4 days for men and 13.7 days for women) and the remaining patients underwent further inpatient rehabilitation (length of stay—35.6 days for men and 30.1 days for women) (*see page 742*).

## Paediatric arrhythmias in the emergency department

This is one of the largest studies of paediatric arrhythmias, and has simple and clear messages:

Unstable or fatal arrhythmias are rare in paediatric patients coming to the ED.

Other than adenosine, antiarrhythmic agents or a defibrillator are used infrequently for arrhythmia management (*see page 732*).