Conducting emergency research when consent and consultation are a challenge (editor’s choice)

Studies in patients with emergency conditions that render them unable to give consent have been very difficult to conduct owing to ethical considerations. The guidance offered in the commentary by Gavin Perkins should bring significant benefit to this under researched population, an example of which is seen in this month’s editor’s choice: Long-term pain prevalence and health-related quality of life outcomes for patients enrolled in a ketamine versus morphine for pre-hospital traumatic pain randomised controlled trial. This is a follow up report on trauma patients who participated in a randomised trial of pain relief in the pre-hospital setting. The initial paper found that ketamine had significantly better analgesic effects than morphine; however regardless of treatment, persistent pain is still a big problem for many patients at 6 months, affecting quality of life.

Comparison of intubation modalities in a simulated cardiac arrest

Advances in intubation techniques include video assisted devices (VAD). This study looked at how long the procedure takes with 2 different modes of intubation, either direct laryngoscopy (DL) or using VAD, with and without bougie.

Twenty emergency physicians with prior training in these modes of intubation intubated a mannequin with a difficult airway on a hospital bed whilst continuous CPR was delivered.

Did the VAD improve time to intubation, and when a bougie was used, was this quicker than DL?

VAD was quicker than DL (median 20.6 seconds, IQR 17.7–27.1 as compared with 27 seconds, IQR 20.3–35.4) However, using a bougie with the VAD added considerable time: 60.1 seconds (IQR 39.1–99). This important result leaves some questions: is a bougie really useful in this situation? Is its use deleterious? Maybe a future study looking at bougie use in the difficult airway in adults and children should be planned.

The effect of elevated serum alcohol on the outcome of severely injured patients

This retrospective cohort study looked at 184 criteria-selected patients admitted to Trauma Unit at the University Hospital between October 2008–December 2009 with injury severity scores above 17. Patients were stratified into 2 groups: blood alcohol level positive (BAL+) with >5% level of alcohol, and those with lower/no blood alcohol level (BAL-).

Injury severity scores were similar in the groups, but there was more traumatic brain injury in the BAL+ patients. There was no significant difference in mortality between the 2 groups, the causes being similar in both. Nor were there significant differences in length of stay in hospital and ICU, or duration of ventilation.

Does this mean that alcohol has no effect? The jury is still out. Similar studies are needed from multiple centres with aggregated data to address this question.

A population based study on the night-time effect in trauma care

This retrospective study reviewed 1940 cases in the Emilia-Romagna area of Italy (with 4.5 million inhabitants), which has had a centralised trauma system since 2006. Out-of-hours and in-hours mortality of trauma patients was examined including, unusually, patients transferred from to the major trauma centre from the 84 satellite hospitals in this region.

There were fewer secondary night-time transfers but with an increased risk of mortality in this group. Another interesting finding is that only 40% of patients with severe trauma came to the major centre, a figure which the authors say, is paralleled in other health systems in the world.

The night-time effect on mortality is attributed to the ‘lack of homogenous transfer protocols and of a standard level of pre-hospital care around the clock’. It would be interesting to see what the impact of addressing these issues might be and to hear from other health systems if similar problems are found in trauma care networks.

Sustained health-economic effects after reorganisation of a Swiss hospital emergency centre: a cost comparison study

Does a triage system plus a co-located GP unit reduce costs in delivering care? The answer appears that it does. In this study from Switzerland, the cost reduction overall was a staggering 417 000 Euros. Can you show cost reduction if you have a similar system in place?

Randomised trial comparing the recording ability of a novel, electronic documentation system with the AHA paper cardiac arrest record

Sixteen anaesthetists were asked to view pre-recorded PEA or VF arrests and document what happened using paper and electronic systems. There were fewer missed events, less irrelevant information noted and fewer mistakes made in documenting those events using the electronic system. It seems the quality and meaning of the data is enhanced by an electronic recording system.

An evaluation of the referral process in the emergency department

This is an area fraught with misunderstanding and potential upset if things go wrong! Miscommunication is frequently cited in serious events, but is commonplace in delivering healthcare. This study looked at how ED and non-ED clinicians felt about referring patients and offers some solutions to this key area of patient care.

And still more…

In addition to the other articles and features in the October issue, EMJ will be publishing an on-line issue free, full-text access to all articles for the next three months. Find it from September 30th here http://emj.bmj.com/content/current

Highlights from this issue

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