LETTERS TO THE EDITOR

Use and abuse of spinal boards

EDITOR,—I was interested to read the exchange of correspondence between Dr C J Carney¹ and Drs Main and Lovell^{2,3} regarding the use and abuse of spinal boards.

In their original paper and their letter, the authors draw attention to the dangers of prolonged use of a rigid spinal board. These concerns are certainly real, and I have even witnessed a patient still lying on a spinal board on an orthopaedic ward more than 24 hours after spinal injury had been ruled out by A&E staff. I would, however, disagree with the authors' interpretation of the term "extrication". Any removal of an injured patient from a vehicle constitutes extrication, whether the patient is trapped or not, and the authors' reference to entrapment misses the point set out by Dr Carney. While many injured patients may leave their vehicle of their own volition, or be assisted out by well meaning bystanders, patients with significant injuries will often remain inside the vehicle until the ambulance crew arrives. The way in which these patients are removed by rescuers can be crucial in preventing further injury, and the spinal board is one of the key tools in doing this. The methods are well known to most immediate care doctors and ambulance personnel.

We have recently tried out a useful adjunct to the spinal board—the Reeves sleeve. This sleeve is constructed of a padded plastic material and slips over the rigid spinal board. The padding renders the spinal board more comfortable for a patient, and the sleeve offers the advantage of six inbuilt patient straps and two head wedges with padded, head restraining straps. The robust construction of the sleeve converts a spinal board into the equivalent of the old Neil-Robertson stretcher, and the combination can be used for mountain and building rescue as well as the more common everyday uses. Further information on this sleeve may be obtained in the United Kingdom from Airoshelta Ltd (Mr R Bailey, Tel: 01484-646559; Fax: 01484-644450).

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- 1 Carney CJ. Support surfaces [Letter]. *J Accid Emerg Med* 1996;13:302.
- 2 Main PW, Lovell ME [Letter]. *J Accid Emerg Med* 1996;13:302.
- 3 Main PW, Lovell ME. A review of seven support surfaces with emphasis on their protection of the spinally injured. *J Accid Emerg Med* 1996;13:34-7.

Current use of the A&E ward

EDITOR,—I wish to thank Rainer *et al* for their review of the current use of the accident and emergency ward as it relates to their caseload,¹ but what of the future?

There are increasing opportunities to use the A&E ward as a facility for intensive early investigation and treatment to prevent prolonged hospital stays when the patient is not in need of nursing care. For example, following the diagnosis of lower limb deep vein thrombosis in A&E, those amenable to outpatient management can be discharged within 24

hours receiving subcutaneous fractionated heparin^{2,3} (given once daily with no coagulation monitoring needed). A nurse practitioner organises continuing treatment in the community and outpatient follow up care. The patient will have their first dose of warfarin in A&E and receive the remainder of their loading doses in the community.

Patients with upper gastrointestinal bleeding and at low risk of rebleeding can have an endoscopic diagnosis from the A&E ward and where appropriate can be discharged home on treatment within 24 hours of arrival.⁴ Patients with ureteric colic may also be suitable for early discharge and out patient follow up and thus benefit⁵ from a similar use of the ward.

These are three current examples, there are more and more will arise in time. Their use will be determined by case mix and other factors affecting medical innovation adoption.⁶ The advantages are not just the more economical use of acute beds but better quality of life for the patient.³

It may be too much at present to seek radiological demonstration of DVT or endoscopy for low risk upper gastrointestinal bleeding (for example) at any time of day or night. These facilities could, however, be offered some time within a 24 hour period, seven days a week (my experience is that other specialists do not have to be convinced of the benefit of this). Hence the use of the A&E ward as a holding bay for these patients away from the busier areas of the department and the avoidance of formal admission to another specialty bed. Senior A&E doctor review is facilitated if necessary. The duration of stay on the ward needs to be limited and the limits enforced. Is A&E going to take referrals with these conditions from GPs or even in house from on call specialties?

Each case is a multidisciplinary process requiring agreement and coordination. A&E medicine is of central importance. We have to take the lead. Procedures need to be agreed and information accessible to the attending doctors and nursing staff. Care pathways may be the best way to guide non-permanent junior medical staff who see the majority of such patients.

This, surely, has to be a good use of an A&E ward (which has many uses) and with further improvements in technology and patient management systems is an increasingly important direction for the development of emergency care and A&E as a specialty.

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- 1 Rainer TH, Swann JJ, Crawford R. Critical analysis of an accident and emergency Ward. *J Accid Emerg Med* 1996;13:325-9.
- 2 Levine M, et al. A comparison of low-molecular-weight heparin administered primarily at home with unfractionated heparin administered in the hospital for proximal-deep-vein thrombosis. *N Engl J Med* 1996;334:677-81.
- 3 Koopman MMW, et al. Treatment of venous thrombosis with intravenous unfractionated heparin administered in the hospital as compared with subcutaneous low-molecular-weight heparin administered at home. *N Engl J Med* 1996;334:682-7.
- 4 Rockall TA, et al. Selection of patients for early discharge or outpatient care after acute upper

gastrointestinal haemorrhage. *Lancet* 1996;347:1138-40.

- 5 Morris SB, et al. Should all patients with ureteric colic be admitted? *Ann R Coll Surg Engl* 1995;77:450-52.
- 6 Fennel ML, Warnecke RB. *The diffusion of medical innovations: an applied network analysis*. New York: Plenum: 1988.

Prehospital cardiac arrest in Leicestershire

EDITOR,—I congratulate the authors of the paper on prehospital cardiac arrest published in the July 1996 issue of the Journal¹ on their extensive analysis. However, in their paper they describe subgroups which I believe are possibly open to confounders. Specifically:

(1) The influence of professional versus lay cardiopulmonary resuscitation (CPR). Professional CPR may imply the close proximity and early application of a defibrillator which is well known to improve prognosis. I wonder if the group was further analysed to ensure that the times to defibrillation for the professional CPR group versus the lay CPR group were similar.

(2) Glasgow coma score as a prognostic indicator: the authors mentioned that the Glasgow coma score was used to determine suitability for intensive care. There is a possibility that the admission to intensive care itself may have influenced survival, thus improving the survival for those with a higher Glasgow coma score and confounding the use of the score as a prognostic indicator.

I believe clarification of these points would be of benefit if greater promulgation of basic life support skills and availability of defibrillators in the community are to be supported, and admissions to intensive care units rationalised.

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- 1 Hassan TB, Hickey FG, Goodacre S, Bodiwala GG. Prehospital cardiac arrest in Leicestershire: targeting areas for improvement. *J Accid Emerg Med* 1996;13:251-5.

The authors reply:

Dr Cameron raises two important issues for clarification. Professional first responder CPR was defined as that given by medical, nursing, paramedical, or trained first aid responders. This occurred in 48 cases and often involved the patient's general practitioner who had been called before the 999 call, or off duty emergency medical services (EMS) staff. In no case was defibrillation used before the arrival of the ambulance. In fact when questioned, most GPs in Leicestershire stated that they do not carry a defibrillator, reasons given being expense, infrequent use, cumbersome nature of the equipment, and skill levels required in using a defibrillator.

Our study confirms the findings of others that trend changes in the Glasgow coma score over the first 24 hours can be used as a good indicator of prognosis and a reason to continue or withdraw intensive support in

treatment. There were, however, anecdotal reports from A&E team leaders of some clinicians from the intensive care unit (often juniors) attempting to use a low initial admission GCS as a way of triaging patients away from receiving ICU care. As Dr Cameron points out, such an occurrence would obviously be a powerful confounding factor to our study. In reality joint discussion between A&E, ICU, and senior medical staff in such situations usually resulted in the patient being transferred to the most appropriate facility.

However, we would accept that a possible hidden confounder is that in such patients being admitted to an ICU, clinicians may decide that aggressive therapy might be inappropriate, as outcome is perceived to be poor. As suggested, it is important therefore to develop joint guidelines with the ICU to minimise the potential for disagreement in early postresuscitation care in order that all patients are given the best possible opportunity for survival.

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BOOK REVIEW

Self-assessment in Accident and Emergency Medicine. By Derek Burke, Ian Greaves, Philip Hormbrey. (Pp 220; £15.99.) Oxford: Butterworth Heinemann, 1996. ISBN 0 7506 2215 6

There is no doubt that within the very near future, increasing numbers of hopeful junior doctors in the United Kingdom will be taking exams in A&E. Mindful of this, the authors of this paperback have produced 200 pages to help cater for their needs. The book is very good. It is perhaps a tribute to its content that the greatest criticism relates to its presentation. Throughout, the text is unjustified, which makes it slightly unsettling to read and creates an unnecessarily scruffy appearance.

The first half of the book is devoted to multiple choice questions (MCQs) with accompanying discussion. A wide range of topics is covered in the questions, which are followed by relevant and informative explanation. It is

no surprise that some of the answers are controversial. Collect together several experts (or junior doctors with large textbooks, which amounts to the same thing), present them with a few MCQs and there will be predictable argument about which are the correct answers. This applies to even the most supposedly carefully worked out questions, as generations of frustrated physicians studying the MRCP part 1 past papers will testify. Criticism of the content of this book on these grounds is therefore perhaps a little unfair. However, it seems rather a shame that within the first question at least one answer is controversial and appears to be at odds with its associated discussion.

The remainder of the book comprises questions on case histories, data interpretation, clinical pictures, and x rays. Once again, a variety of subjects is addressed in a lively and stimulating fashion, thus maximising the chance of maintaining the interest of overworked A&E trainees. Indeed, the whole book is written in such a way that it can be usefully picked up for a few minutes at a time. It can be strongly recommended as a study aid for postgraduate A&E exams.

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