

Prehospital care section meeting the readers needs

Prehospital care section meeting the readers needs

C Laird

Changes to the Prehospital care section of the journal

It has been recognised by the Editorial Board that whilst original papers are an important part of any journal the inclusion of other material may be of particular importance to readers of the Prehospital care section for whom prehospital care may not be their primary occupation and wish to use this section of the journal to ensure they are keeping up to date with developments in this field.

As a result we have introduced material other than just scientific papers into this section—probably the most notable example being the ABC of Community Emergency Medicine. In addition we have also introduced Equipment Reviews—Best Evidence Equipment Reviews (BEER's) and Case Reports with a more structured format. In the next few months you will also see a number of commissioned articles reviewing the up

to date management of topics, which we feel may be of interest to readers.

In order to continue development of this section of the journal we do need help and participation from outside the editorial team. Should you feel that there is a particular area of immediate care, of which a review article would be useful, then we would be delighted to hear from you. Also if you would be happy to undertake an Equipment Review, or have a Case Report which you would like to submit in our new structured format we would wish to hear from you.

If you have any other suggestions for the development of this section of the journal please do not hesitate to let the Prehospital Editors know your ideas.

Emerg Med J 2005;22:236.
doi: 10.1136/emj.2005.023663

Correspondence to: Dr Colville Laird, BASICS Education Scotland, Sandpiper House, Aberuthven Enterprise Park, Main Road, ABERUTHVEN, Perthshire PH3 1EL; claird@basics-scotland.org.uk

EDITORIAL

Prehospital and Retrieval Medicine

C Laird

A new subspeciality of prehospital and retrieval medicine is proposed – the dialogue should start

In the Prehospital Care section of this edition of the Journal McKenzie & Bevan propose the formation of a subspecialty of prehospital and retrieval medicine. They argue that the standards and varying provision of prehospital medical care compare poorly with the more uniform consultant led Accident & Emergency services and suggest that the new GP contract, development of GP's with special interests, licensing and re-validation and the reform of postgraduate medical education all make this the appropriate time to form a new subspeciality.

This article is accompanied by responses from:

- The Faculty of Pre-Hospital Care
- The Royal College of Anaesthetists
- The Royal College of General Practitioners
- The Faculty of Accident & Emergency Medicine
- BASMeD
- BASICS Scotland

All respondents wish to see a dialogue on this topic taken forward. The

formation of the new Postgraduate Medical Education Training Board and the supervision of a new style of medical education with competencies at its centre makes this an appropriate time for such debate to take place. The lack of robust scientific evidence and the need to develop audit and research in this area is highlighted. The responses indicate a divergence of opinion as to what interventions are appropriate in prehospital care and as a consequence the type and length of training that is required to practice prehospital care.

It is clear that a number of organisations have concerns that the development of accreditation, particularly where it is examination based, would result in a considerable number of doctors currently providing prehospital care becoming non-operational. Many of the replies mention the importance of competency based training and it would seem achievable to design a competency based graded system of training that would allow practitioners in immediate care to practice safely at the level to which they

have the time and experience to develop.

Only one reply mentions the work of prehospital care practitioners at mass gathering and sporting events. This is, however, an area which frequently involves prehospital care practitioners who would also benefit from the development of recognised levels of training.

As to who should take the lead role in this – there is a suggestion that The Faculty of Pre-Hospital Care of The Royal College of Surgeons of Edinburgh should do this. None of the replies opposed this suggestion. Many of the replies suggest the need for widespread consultation should this proposal be taken further and BASMeD points out the need for the academic support for this initiative not to be “narrow” and to be intercollegiate. Indeed many of the respondents refer to the multi disciplinary nature of this work. Some of the respondents have worries about the best title for this speciality and it seems likely that further discussion on this topic will be required.

It seems that there is much support for the proposal to closely examine medical prehospital care education, standard setting and regulation. This article has started the debate and the momentum should not be lost. A meeting of all interested parties seems to be called for?

Emerg Med J 2005;22:236.
doi: 10.1136/emj.2005.023663

Correspondence to: Dr Colville Laird, BASICS Education Scotland, Sandpiper House, Aberuthven Enterprise Park, Main Road, ABERUTHVEN, Perthshire PH3 1EL; claird@basics-scotland.org.uk

PostScript

LETTER

Diagnostic decision support in the ED: practical considerations

Graber's article raises several valid points about the provision of diagnostic decision support in the Emergency Department (ED).¹ The ED is one setting where reaching the correct diagnosis (for simple clinical problems as well as unusual ones) may reduce the burden of diagnostic error and its costly adverse consequences.²

In Graber's study, QMR and ILIAD were tested for their diagnostic accuracy with the limited amount of data available at initial clinical presentation; quite rightly, the authors used the final diagnosis at discharge from ED as the gold standard. However, this testing was not performed by the lay user, and the systems were provided detailed clinical information derived from multiple physicians' assessment - conditions that may not be satisfied in real life usage. Despite this, the systems do not appear to be very useful: in an individual case, their accuracy (compared to an ED physician) is less than 50%; even if it were 100%, would a user be able to select the correct diagnosis from the 20-30 diagnoses offered; and even if they could, do ED physicians have the time to spend 20-40 minutes with these systems for each patient? The authors rightly conclude that a diagnostic 'reminder' system, rather than a diagnostic oracle, might serve ED physicians better, a conclusion that has been confirmed in previous studies of diagnostic decision support.³

We have been involved in the development and validation of a diagnostic reminder system, called ISABEL (<http://www.isabel.org.uk>). It was developed by a UK medical charity after a 3 year old child suffered a mis-diagnosis in ED.^{4,5} We have circumvented many of the criticisms that Graber

et al raise about "expert systems" by utilising 4 standard, widely accepted textbooks as the knowledge base, which are searched by a powerful software (Autonomy) that uses advanced textual pattern recognition techniques to identify candidate diagnoses based on clinical features entered by users in free text. Only 10-12 diagnoses are offered, arranged in broad headings of causation (Toxicology, Cardiology etc.) rather than in order of likelihood. Further information on each diagnosis is available as text from the textbook.

Demanding, time-pressured ED physicians will be interested by the fact that ISABEL displayed the final ED diagnosis >85% of the time, when tested against a sample of 100 children;⁶ all the diagnoses considered to be important in the diagnostic workup of these patients were displayed by ISABEL in 73% cases; and it took less than 2 minutes for lay users to enter clinical features in free text and generate meaningful results. Testing the impact of such a system with real clinicians in a laboratory setting suggested that in 1 out of every 7 consultations, they were reminded a 'significant' diagnosis that would otherwise have been missed. Similar results have been replicated in real life in a recent multi-centre study in 4 UK paediatric EDs (awaiting publication). The ISABEL model is also currently covers adult as well as paediatric conditions, as well as many specialities.

It seems reasonable to conclude that in the context of an ED, systems that deliver rapid, practical and easy-to-use diagnostic reminders might prove more useful than "expert problem-solver" systems that may provide accurate results, but following lengthy interaction.

P Ramnarayan

Great Ormond Street Hospital for Children, London, UK

A Tomlinson, J Britto

Isabel Healthcare, London, UK

G Kulkarni

St Mary's Hospital, London, UK

Correspondence to: P Ramnarayan, St Marys hospital, London; ram@isabel.org.uk

References

- 1 Graber MA, VanScoy D. How well does decision support software perform in the emergency department? *Emerg Med J* 2003;20:426-428.
- 2 Leape LL, Brennan TA, Laird N, *et al*. The nature of adverse events in hospitalized patients. Results of the Harvard Medical Practice Study II. *N Engl J Med* 1991 Feb 7;324(6):377-84.
- 3 Lemaire JB, Schaefer JP, Martin LA, *et al*. Effectiveness of the Quick Medical Reference as a diagnostic tool. *CMAJ* 1999 Sep 21; 161(6):725-8.
- 4 Greenough A. Help from ISABEL for paediatric diagnoses. *Lancet* 2002 Oct 19; 360(9341):1259.
- 5 Ramnarayan P, Britto J. Paediatric clinical decision support systems. *Arch Dis Child* 2002 Nov;87(5):361-2.
- 6 Ramnarayan P, Tomlinson A, Rao A, *et al*. ISABEL: a web-based differential diagnostic aid for paediatrics: results from an initial performance evaluation. *Arch Dis Child* 2003;88:408-13.

CORRECTIONS

doi: 10.1136/emj.2005.23663corr1

In the editorial titled Prehospital and retrieval medicine (*Emerg Med J* 2005;22:236) BASICS was omitted from the list of reponses. The journal apologises for this error.

doi: 10.1136/emj.2005.22780corr1

In the commentary from BASICS (*Emerg Med J* 2005;22:296) BASICS has been incorrectly spelt in the title. The journal apologises for this error.