and the general practitioner (I'm sure that many readers will believe this is the most important message of all to portray). In each episode there may actually be several messages, each targeting a different type of viewer.

Conclusion

The programme is not perfect as there are limitations which define how it is made. It

is popular for many reasons. It is part soap opera, part education, and it appeals to the public fascination with all things medical. It portrays life in an "average" A&E department, warts and all. I have been fortunate to be involved with it and in Clive Mantle (who plays the consultant Mike Barret) I have found one of the few people I can beat at golf.

LETTERS TO THE EDITOR

Fluid resuscitation in traumatic haemorrhage

EDITOR,—The article "Fluid resuscitation in traumatic haemorrhage" by R Cutress¹ contains a significant error (or perhaps a misprint). The author states "...ATLS as a package has been shown to be more effective in prehospital treatment than Basic Life Support", citing references 22 and 23. Neither of the articles referenced looked at ATLS. They compared ALS (Advanced Life Support) for ambulancemen (the equivalent of extended training) to basic ambulance training and found it produced better results. However, this conclusion must be regarded with caution as the methodology in both studies was weak.

The author states that "ATLS has been shown to make a substantial contribution to the management of trauma". As an ATLS enthusiast I agree with the spirit of this statement. However, I am unaware of any trial showing that ATLS has a significant impact on morbidity or mortality. Perhaps it is not necessary to prove that it does. But then, as the author has demonstrated, when you examine the conventional wisdom, as he does with intravenous fluid, the results can be surprising.

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- 1 Cutress R. Fluid resuscitation in traumatic haemorrhage. *J Accid Emerg Med* 1995; 12:165.

The author replies

I would like to thank Brian McNicholl for pointing out an error in my article "Fluid resuscitation in traumatic haemorrhage". As he correctly states the sentence should read "There has been no evidence to date suggesting that prehospital administration of intravenous fluids is of benefit to trauma patients (reference 21), although ALS (Advanced Life Support) as a package has been shown to be more effective in pre-hospital treatment than Basic Life Support (references 22, 23)."

The effect of ATLS has been studied by comparing patient outcome before and after the introduction of ATLS. In this way ATLS has been shown to improve patient outcome.¹ Such studies however, do not always show significant improvement.² I am sure that there would be inherent difficulties in the design and methodology of an "ideal" trial

that directly compared ATLS with some other control. It is for this reason that I suggested in the article, that components of ATLS, for example the fluid resuscitation regime, be individually taken and put to test.

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- 1 Ali J, Adam R, Butler AK, Chang H, Howard M, Gonsalves D, *et al.* Trauma outcome improves following the Advanced Trauma Life Support program in a developing country. *J Trauma* 1993;34:890-8.
- 2 Vestrup JA, Stormorken A, Wood V. Impact of Advanced Trauma Life Support training on early trauma management. *Am J Surg* 1988;155:704-7.

Management of poisoning

EDITOR,—The recent paper from Greaves *et al*¹ suggests the management of poisoning is likely to be variable and that the existing literature is interpreted in different ways by different people. The staff in Glasgow deserve credit for diagnosing acute carbon monoxide poisoning and for the satisfactory outcome of the patients they report.² Despite the certainty with which they recommend hyperbaric oxygen (HBO) for acute carbon monoxide poisoning, the data they cite are limited.³ Some clinicians hold a contrary view. Authors of a review of controlled trials comparing normobaric and hyperbaric oxygen concluded that further trials were needed to establish the role of HBO.⁴ Until these have been carried out, the risks of transferring critically ill patients must be balanced against possible benefits of HBO.

Further studies are needed in other areas of poisoning but, to avoid unnecessary duplication of previous work, systematic review of current evidence is needed. A group is currently trying to establish (with the support of the UK and Australasian Cochrane Centres) a Cochrane Collaborative Review Group on poisoning and envenomation. Anyone wishing to contribute to this can contact the following: R D Hardern, Accident and Emergency, St James's University Hospital, Beckett Street, Leeds LS9 7TF, United Kingdom, or Dr N Buckley, Discipline of Clinical Pharmacology, Mater Misericordiae Hospital, Watarah, NSW 2298, Australia.

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- 1 Greaves I, Goodacre S, Grout P. Management of drug overdose in accident and emergency departments in the United Kingdom. *J Accid Emerg Med* 1996;13:46-8.
- 2 Roy B, Crawford R. Pitfalls in diagnosis and management of carbon monoxide poisoning. *J Accid Emerg Med* 1996;13:62-3.
- 3 Smith JS, Brandon S. Morbidity from acute carbon monoxide poisoning at 3 year follow up. *BMJ* 1973;i:318-21.
- 4 Tibbles PM, Perrotta PL. Treatment of carbon monoxide poisoning: a critical review of human outcome studies comparing normobaric oxygen with hyperbaric oxygen. *Ann Emerg Med* 1994;24:269-76.

Paracetamol overdose

EDITOR,—The treatment of paracetamol overdose has been and remains a contentious issue among both toxicologists and A&E doctors. The opinions expressed in the recent review of the management of drug overdoses in A&E departments in the United Kingdom,¹ however, were misleading and failed to indicate the currently accepted guidelines for the management of acute paracetamol overdosage.² In both scenario 1 and 2 it was implied that gastric lavage was an inappropriate measure, but from the history in both cases gastric lavage with charcoal was the treatment of choice. I find the assertion regarding the patient in scenario 1 particularly alarming as the only early diagnostic aid in cases of paracetamol overdose is the history taken from the patient. It should be of little relevance how frequently the patient attends or how many previous overdoses the patient has taken; patients should be treated according to accepted guidelines until proof exists that the history is inaccurate. Gastric lavage is rapidly losing favour in the treatment of paracetamol overdose but gastric lavage alone has been shown to lower plasma paracetamol levels by up to 39.3%³ and in combination with charcoal is still regarded as the optimum treatment of paracetamol overdose within two hours of ingestion.

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- 1 Greaves I, Goodacre S, Grout P. Management of drug overdoses in accident and emergency departments in the United Kingdom. *J Accid Emerg Med* 1996;13:46-8.
- 2 Management of acute paracetamol overdosage. Guidelines from the Paracetamol Information