LETTERS TO THE EDITOR

Accident and emergency medicine or emergency medicine?

EDITOR,—In 1990, after debate and a vote at the Annual General Meeting, the name of our organisation was changed from the Casualty Surgeons' Association to the British Association for Accident and Emergency Medicine. I submitted an amendment to the effect that the words "Accident and" should be dropped from the new name, making it simply the British Association for Emergency Medicine. I did this because I believed the word Accident was unnecessary and indeed something of a tautology. I felt that, if we were going to make such a significant change, we should do so in a bold and imaginative way, to conform with sister organisations throughout the English speaking world. My amendment was defeated and I can understand the reasons for this.

I now feel it is time to reopen this debate. I believe, given the changes which are happening within the specialty of general medicine, there is a risk that we may lose the link to the title "Emergency Medicine". I believe it is very important that this does not happen, especially because we appear to be assuming the role of emergency physician to an ever increasing extent. I feel that the letter's perception of our journal is an appropriate place in which to have such a debate and I look forward with interest to hearing what other practitioners of "emergency medicine" have to say on this subject.

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Planning cannot rely on emergencies arriving by ambulance

EDITOR,—Snooks et al have recently reviewed the literature on the appropriateness of emergency ambulance usage.1 We agree that it is important for ambulance services to understand the factors that influence the public in their decision to phone 999. It is hoped that in the future non-emergency ambulance calls may be able to be dealt with by other means, for example telephone advice. Studies of inappropriateness of use do have downsides in helping with future strategies. We must also study the other side of the coin—the inappropriateness of use for an emergency ambulance. Triage categories 1 and 2 in the national scale represent those who the triage nurse believes need urgent care. Therefore we believe it is reasonable to presume that an emergency ambulance is appropriate for these cases. The converse is not, however, true as immediacy of treatment on arrival is only one criterion. For example, the paramedic may have undertaken treatment that means accident and emergency (A&E) treatment is less urgent.

We recently undertook a pilot study to determine the possible extent of this effect. A sample of consecutive records was retrieved from a computerised records of a large inner city A&E department. Information was obtained relating to mode of arrival of the patient and triage category on arrival. Triage was undertaken according to the Manchester guidelines and the national consensus on target times is utilised (that is category 2 has a target time of 10 minutes and category 1 needs immediate treatment).2 In 10 079 cases, 885 were triaged as category 1 or 2 in a one month period. Altogether 2310 cases were transported to hospital by ambulance; 3265 had an unspecified means of transport. At least 23.4% of all category 1 and 2 patients presented to the A&E department by routes other than the ambulance service (details are shown in table 1).

Those not arriving by ambulance will be unannounced. They demonstrate the need for advanced skills to be immediately necessary. All staff, medical and nursing, should be trained to care for the first few minutes of an emergency. To this end nursing staff as well as junior doctors need to become providers on the various life support courses. Advice lines (for example NHS Direct) may increase the workload for the emergency ambulance service. Although those using the ambulance service inappropriately may decrease, by diverting them to other sectors of care or transport there are others who would be inappropriate for ambulance and ambulance service cannot be used by who do not utilise it. It may also engender an attitude of 24 hour care whatever the severity.3 Using the figures of Snooks et al of 30–52% of ambulance cases being inappropriate, this would extrapolate to 693–1201 cases in our study population of 10 079 A&E attendances. But if all category 1 and 2 used an ambulance this would give an extra 207–453 triage category 1 and 2 cases (depending on how many of the "unspecified" were actually ambulance cases). This analysis cannot determine how many extra category 3 patients may result by this more appropriate use of an ambulance rather than public transport.

In planning, it is vitally important to consider those who fail to utilise the emergency system when it would have been appropriate, as well as those who use it inappropriately. In A&E we are oblivious of those who could have appropriately used A&E services but either sought treatment elsewhere or treated themselves. Education may therefore increase workload rather than decrease it.

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1 Snooks H, Wrigley H, George S, et al. Appropriateness of use of emergency ambulances. J Accid Emerg Med 1998;15:321–18.
2 Manchester Triage Group. Emergency triage. Macclesfield: W.B. Saunders, 1997.
3 McKee L. Telephone advice scheme criticised. BMAJ 1998;317:429.

Table 1 Mode of arrival by triage category

| Mode of arrival | Triage category 1+2 (%) |
|-----------------|------------------------|
| Ambulance       | 431 (48.7)             |
| Car             | 183 (20.7)             |
| Other           | 10 (1.1)               |
| Police          | 10 (1.1)               |
| Public transport| 7 (0.8)                |
| Walking         | 6 (0.7)                |
| Not specified   | 143 (16.2)             |
| Total           | 885 (100)              |

The authors reply

Cooke and Jinks refer to an issue not explored in any of the papers reviewed in our article: that is the proportion of patients who, had they been transported on the basis of the 999 service when it would have been appropriate to do so. In searching the literature for this review paper, we found only one paper that addressed this issue,4 although there are papers that have analysed outcomes of delay in transport in certain conditions such as myocardial infarction and stroke (in the US)5 and have concluded that calling an emergency ambulance is the most appropriate action to take.

Like Cooke and Jinks, Schuman et al examined a sample of patients attending an emergency room, divided them into (three) categories of urgency, and determined whether they had arrived by ambulance or not.6 The study was much smaller than that of Cooke and Jinks, but a similar proportion of patients in a life threatening condition (12 out of 220) had not arrived by ambulance.

Turning again to the figures quoted by Cooke and Jinks, it is possible to construct a 2×2 table showing the distribution of all patients in their study according to level of urgency and mode of arrival. The table is reproduced here for clarity (table 2).

Although 454 patients in triage categories 1 and 2 did not use the ambulance when it might have been appropriate for them to do so, 1879 patients did use it when it might not have been appropriate for them to do so. We acknowledge, as Cooke and Jinks suggest, that the condition of patients at triage in A&E might be substantially different from that presented to the ambulance crew on arrival at scene, particularly in some cases such as hypoglycaemia or asthma, but we doubt that their condition applies to over 80% of ambulance transports (1879/2310). With a rate of between 30–52% of 999 call-outs assessed as inappropriate, and the development of alternative emergency routes such as NHS Direct, it is difficult to see that, overall, the appropriateness of usage of the 999 service cannot be improved.

Cooke and Jinks' second point relates to the possibility that advice lines might increase the workload for the emergency ambulance service. A recently published study may give some insights into this.7 In a year long randomised controlled trial of a nurse telephone consultation service in an out of hours general practitioner (GP) cooperative, 50% of calls were managed by nurses without reference to a GP. The number of cases who had called the service and who attended the definitive service in the next three days was equivalent in both arms of the trial. Because of its blinded nature, however, this study was not able to examine the rise in demand over time engendered by the new service, and demand management remains a subject for research.

We thank Cooke and Jinks for drawing attention to the "other side of the coin", a relatively neglected issue and an argument for the appropriateness of use of the emergency ambulance service. We have yet to see how much planned developments can influence the practice of patients, carers, and GPs. It is clear, however, that we need to understand our current workload and factors that influence demand.

Table 2 Distribution of patients in study of Cooke and Jinks

| Triage 1 and 2 | Total |
|----------------|-------|
| 431            | 885   |
| 1879           | 100   |

Total 2310 7769 10079
better if we are to proactively manage this demand to the benefit of the patient, the ambulance service, and the wider NHS.

1 Schuman LJ, Wolfe H, Sepulveda J. Estimating demand for emergency transportation. Med Care 1977;15:738-49.
2 Sharkey SW, Brunette DD, Ruiz E, et al. An analysis of time delays preceding thrombolysis for acute myocardial infarction. JAMA 1989; 301:171-3.
3 Birdhead JS. Time delays in provision of thrombolytic treatment in six district hospitals. Joint Audit Group of the British Cardiac Society and Cardiology Committee of the Royal College of Physicians of London. BMJ 1992;305:445-8.
4 Roasland WD, Gordon RA, Hinn AP, et al. Rapid response to stroke symptoms: the delay in accessing healthcare (DASH) study. Acad Emerg Med 1998;5:45-51.
5 Lattimer V, George S, Thompson F, et al. Safety and effectiveness of nurse telephone consultation in out-of-hours primary care: randomised controlled trial. BMJ 1998;317:1054-9.

Inappropriate ambulance usage is a retrospective diagnosis

EDITOR,—In their review of the use of ambulances, Snook et al acknowledge that the vast majority of the existing literature is based on retrospective assessment of medical need and has been undertaken by clinicians in accident and emergency (A&E) departments after full assessment and diagnosis.1 More useful estimates of the level of inappropriate use of emergency ambulances require information about the reason for the emergency 999 call and an assessment of the patient before the definitive diagnosis that is made in A&E.2,3 It has previously been reported that the most common reasons for inappropriate use of an ambulance are the lack of alternative transport4 and alcohol intoxication.5 Furthermore, ambulance “misuse” has been reported to be more common among nursing home residents6 and by the socially deprived.7,8

Analysis of the cohort of patients not transported to hospital provides additional information about the reasons why patients not requiring care in an A&E department may call an ambulance. A small audit undertaken by the West Midlands Ambulance Service provides data about patients who were not transported to hospital after a 999 emergency ambulance call. A sample of 100 consecutive report forms, where the patient was not transported, were reviewed. Ambulance patient report forms were analysed from five ambulance stations. These cases were classified according to reason for non-transportation. These reasons are presented in Table 1.

The reasons for non-removal of a patient from the scene were highly variable. They ranged from automatic fire alarm calls where there may be no incident, to the death of a patient, and from refusal of treatment and transport by the patient to successful treatment by the ambulance paramedic (table 1). Those who refused treatment and had minor conditions or no injuries represented 30% of the study population.

Criterial based dispatch (CBD) has been in full operational use in the West Midlands since April 1997. The CBD categorisation of these patients was reviewed. Of the cases not transported from the scene, 37% were category A (immediate life threatening situation requiring urgent assistance, requires rapid on scene assistance), 50% were category B (condition that is not immediately life threatening, requires intervention as soon as possible), and 13% category C (non-serious or non-life threatening conditions that require conveyance to hospital). The exclusion of the deceased (need for resuscitation not known until assessment by ambulance crew) still leaves nearly a quarter of cases where maximal resources are deployed and no patient transport was required. More work is needed to determine if CBD could be improved to allow telephone advice rather than dispatch of an ambulance.

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