Limited potential of special ambulance services in the management of cardiac arrest

SIR.—We agree with Dr Rowley and colleagues that there has not been sufficient critical analysis of the effectiveness of ambulance personnel with advanced training (Br Heart J 1990;64:309–12). However, we wish to make the following observations about their findings and raise important questions about the development of the emergency ambulance service.

Concentration on those patients with prehospital cardiac arrest brought to the accident and emergency department excludes an unknown number of resuscitation attempts terminated by attending doctors. It may be that crews with defibrillator training spend more time at the scene of an arrest, increasing the likelihood that a general practitioner will arrive to certify that the patient is dead, and release the ambulance. The basic emergency crew will “scoop-and-run”, leaving less scope for GP involvement. This may explain why larger numbers of patients were transported to hospital by the crews with a more basic training. What were the total number of resuscitation attempts made by each type of crew, regardless of later hospital transfer?

In our area ambulances only transport victims of cardiac arrest to hospital if resuscitation is in progress. When resuscitation is inappropriate a doctor is called to certify death and the patient is left at the scene or taken to the mortuary. We were surprised therefore that 64 of 147 patients were taken to hospital by defibrillator trained crews without any attempt at resuscitation. These patients had not been pronounced dead by a medical practitioner. What criteria did the ambulance personnel use to withhold resuscitation from these individuals?

While the conclusion that the addition of other skills (drug administration and intravenous access) might save “a few extra lives” is probably correct, we are concerned that this study together with the results of the Scottish experience of semiautomatic defibrillators may stop further extended training in ambulance aid being given to paramedics.

We have already shown the effectiveness of personnel with extended training in the management of hypoglycaemic coma.1 There is recent evidence that patients with acute myocardial infarction complicated by hypotension and bradycardia have a better outcome when transported to hospital by a paramedic vehicle rather than an ordinary ambulance.2 Personnel with extended training also treat patients with acute asthma,3 hypovolaemic shock, and respiratory arrest, and in the future may administer thrombolytic agents.

We are sure that the provision of a defibrillator on every emergency ambulance is an essential short term aim for improving theprehospital management of cardiac arrest. We are equally certain that the provision of a paramedic on every vehicle, coupled with a strict clinical audit, is the essential long term approach to improving all aspects of prehospital emergency care.

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