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CORRESPONDENCE

We may shorten letters to the editor unless the authors specifically state that we may not. This is so that we can offer our readers as wide a selection of letters as possible. We receive so many letters each week that we have to omit some of them. Letters must be typed with double spacing between lines and must be signed personally by all their authors, who should include their degrees. Letters critical of a paper may be sent to the authors of the paper so that their reply may appear in the same issue.

Correspondents should present their references in the Vancouver style (see examples in these columns). In particular, the names and initials of all authors must be given unless there are more than six, when only the first three should be given, followed by et al; and the first and last page numbers of articles and chapters should be included.

Which patients are likely to die in an accident and emergency department?

SIR,—Mr M J Shalley and Mr A B Cross are right to conclude that a much greater emphasis should be placed on the management of medical emergencies in accident and emergency training programmes (18 August, p 419). They are wrong, however, to state: "No reports have been published on the causes of deaths occurring in accident and emergency departments."

In 1982 while working in another hospital in central Birmingham (Dudley Road) I studied deaths occurring in the accident and emergency department and deaths occurring within five days of admission via the department.[1] Five days was an arbitrary time limit chosen in the belief that deaths occurring more than five days after admission cannot be attributed to initial management in the accident and emergency department. The number of deaths occurring in the department clearly depends on the speed with which patients are transported elsewhere.

During one year 44 976 patients arrived in the department, and 218 died within five days—38 in the department. Of these 218 deaths 177 (81%) were due to medical causes, 24 (11%) to surgical, and 17 (8%) to traumatic causes. The deaths due to medical causes were subdivided as follows: cardiac 74 (42%), neurological 59, respiratory 21, overdose 5, pulmonary embolus 4, cirrhosis 4, gastrointestinal haemorrhage 2, hypothermia 2, and others 6. The deaths due to surgical causes were caused by: malignancy 10, aortic aneurysm 4, intestinal obstruction 4, urological 3, peritonitis 2, and cholangitis 1. The deaths due to trauma were caused by: head injury 7, multiple injuries 4, fractured neck of femur 4, strangulation 1, and electrocution 1.

Thirty eight deaths occurred in the department: 30 were due to medical causes (20 cardiac, 4 neurological, 4 respiratory, 1 overdose, 1 gastrointestinal haemorrhage); 6 to surgical causes (2 aortic aneurysm, 1 malignancy, 1 intestinal obstruction, 1 urological, 1 cholangitis); and 2 to trauma (1 strangulation, 1 electrocution).

A final point of interest was that of the original 44 976 patients 21 964 (49%) were the victims of trauma and yet only 17 (8%) of 218 deaths within five days were due to trauma; and of these four were patients admitted with a fractured neck of femur who developed medical complications.

Some deaths occurring in the accident and emergency department should not be considered as preventable—for example, a patient with advanced carcinoma who arrives moribund has a poor prognosis regardless of management, and once the diagnosis is confirmed management is directed only to the relief of suffering.

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1 Bache JB. The work of an A and E department: a new look at the figures. *Accident and Emergency News* 1982;March:4-5.

SIR,—I note that in the study by Mr M J Shalley and Mr A B Cross 171 of the 488 deaths in five years in the accident and emergency department followed myocardial infarction. Furthermore, these were clearly not in patients brought in moribund: all had had 12 lead electrocardiographs performed and were attached to a cardiac monitor.

The greatest opportunity for reducing mortality in accident and emergency departments probably lies in a closer analysis of this group; it would be interesting to know how many had unequivocal electrocardiographic evidence of infarction and whether this was recognised by the casualty officer, and the time between admission to the department and cardiac arrest. A common cause of delay is the wait for a (usually unhelpful) chest radiograph. It is very important that once a diagnosis is made in an accident and emergency department the patient is immediately transferred to a coronary care unit.

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SIR,—Mr M J Shalley and Mr A B Cross provided an interesting picture of the preponderance of deaths from medical causes in accident and emergency departments. Some further information would be useful.