SHORT REPORT

Patient knowledge of thrombolysis in acute myocardial infarction

J A Gilbert, M Clancy

A convenience sample of 50 patients admitted for treatment or ruling out of acute myocardial infarction were asked about their knowledge of thrombolysis. Some 44 of 50 knew nothing of thrombolysis and interestingly 30 of these 44 had been previously diagnosed as having ischaemic heart disease. Greater knowledge of the benefit and timeliness of thrombolysis may provide an important incentive for earlier presentation of this group.

Figure 1

Acute myocardial infarction (AMI) is a leading cause of death. Some 250 000 people die each year in the UK with most deaths occurring before the patient gets to hospital.[1] The benefits of early thrombolysis are well established and proved to reduce mortality and morbidity.[2–4] The National Service Framework for Coronary Heart Disease established a target of 60 minutes between the patients call for help and delivery of thrombolysis.[5] Focus thus far has been on improving ambulance response times, tighter protocols for administration of thrombolytics, and the use of rapid diagnostic techniques to confirm the diagnosis of AMI. Public education programmes, encouraging patients to seek help earlier are also planned.[5]

The time between symptom onset and calling for professional help, the "decision time", is still the largest contributor to the total time delay. Reducing this would improve survival as thrombolysis,[1] of greatest benefit when administered within four hours,[3 4] would occur much more rapidly. Much educational work has focused on patients understanding of symptoms associated with AMI, yet there is no reported research of patient knowledge of thrombolysis and the importance of its early administration. Greater understanding of these issues might be expected to provide a powerful incentive for earlier presentation. Earlier work that considered this issue suggested patient knowledge was deficient, however the study was of a qualitative nature and involved only nine patients (H Foden *et al*, FAEM meeting, 2001). We therefore decided to explore this area in greater depth using a quantitative approach.

SETTING
This study was conducted in the Emergency Department of Southampton General Hospital between November and December 2001.

PATIENTS
Those with a history suggestive of AMI/acute coronary syndrome who were subsequently admitted to hospital for treatment or ruling out AMI and whose GCS was 15/15 were eligible.

METHOD
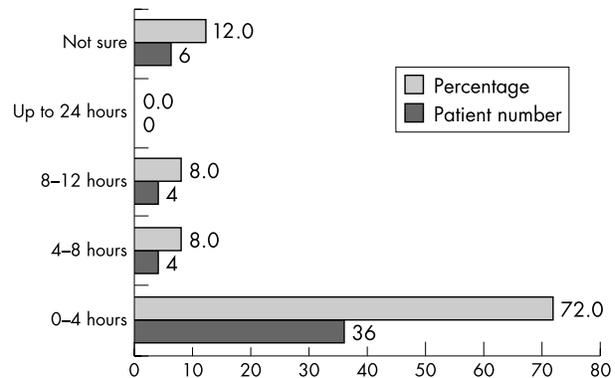A convenience sample of patients who attended while the investigator (JG) was present were recruited. Questions relat-ing to knowledge of thrombolysis were asked while a history was being taken and the responses recorded on a separate data sheet after the clinical notes had been completed.

RESULTS
Fifty patients were recruited (33 male, 17 female). The age range was 36–89, mean 63.24 years. Thirty six patients had a past history of ischaemic heart disease (IHD) (six of these had had a previous AMI). Fourteen patients had no previous history of IHD.

Responses to the questions:

- *Have you heard of thrombolytic ("clot busting") drugs?*

Yes=6 (all had had previous AMI), No=44.

- *For what condition do you think these drugs are used?*

AMI ("heart attack") 11, DVT ("clot on leg") 23, PE ("clot on lung") 3, stoke 0, unsure 13.

It was then explained to patients that thrombolysis was of important benefit for the treatment of AMI but without suggesting the importance of timeliness of administration.

Patients were then asked:

- *How soon after the onset of pain do thrombolytic drugs need to be given?*

For response see figure 1.

Patients were then told that thrombolysis needed to be administered within 12 hours of onset of chest pain and the sooner the better. They were then asked, in the light of this knowledge would they present to hospital sooner if they developed chest pain in the future? All 50 patients said yes.

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DISCUSSION

This study shows that for those patients admitted for diagnosis and treatment of AMI/ACS, most have no knowledge of thrombolysis, or its importance in the management of AMI. Once aware, most thought early administration was important and all said they would present to hospital sooner next time. The NSF target of 60 minutes from symptom onset to thrombolysis is ambitious. Unless patients understand not only the significance of their symptoms, the focus of current educational programmes, but also that administration of thrombolytics as early as possible is life saving, they may lack the incentive essential to change their behaviour and achieve this target. Interestingly, of the 44 who denied knowledge of thrombolysis, 30 had already been diagnosed as having IHD. Perhaps this high risk group should be the first to be targeted.

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