of detecting aneurysms by screening, will patients with small aneurysms be able to maintain a fair perspective of a low risk of rupture or will their predominant perception be of a time bomb waiting to explode within? The predicament of those with large aneurysms who are considered to be unfit for surgery is particularly unfortunate. The anxiety an aneurysm can generate should not be underestimated or disregarded.

If a low prevalence of atheroma associated with elective surgery, a conservative approach to intervention, and adequate counselling of patients can be combined then I believe that a local screening policy for aneurysms could make good ethical and economical sense. That such criteria apply nationally is doubtful, and currently I do not favour a national screening programme.

Lastly, β-blockade has shown promise in the management of hypertension in aneurysms. This is common, whether physiological β1 adrenergic antagonism can retard their expansion or reduce the rate of rupture is of great practical importance. An extension of the Medical Research Council's small aneurysm study to address this issue would be expedient.

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Domiciliary thrombolysis by general practitioners

EDITOR,—I am sympathetic to P I. Harris's objective of trying to reduce mortality from ruptured abdominal aortic aneurysms. I have recently screened 678 (97.6%) of the 695 patients aged 60-79 in our practice for aneurysms. Twenty six were found to have an aneurysm (range 3-0-8.3 cm external sagittal diameter), and 13 were referred for a surgical opinion. The screening programme has exposed some of the dilemmas in current management of aneurysms.

Patients deserve to know of important risks associated with repair of an aneurysm. Harris's suggestion that in the best centres elective repair carries an "operative risk of under 5%" cannot be generally assumed, and published mortality statistics may not reflect the risk for an average patient who is unselected with elective repair of an aneurysm has not been widely published, but in series of mixed elective and emergency repairs it has been considerable. Without reference statistics on mortality and morbidity the balance of which to operate for a particular size of aneurysm and risk to the patient becomes uncomfortably difficult. For individual patients local results will be most pertinent unless distant referral is considered.

Harris rightly directs attention to aneurysms of 4-0-5.0 cm, for which management is contentious; most aneurysms detected by screening fall into this category. Surgery has been advocated for aneurysms of 4-5 cm in diameter, but such an aggressive policy is not supported by recent prospective and retrospective studies of the natural course of aneurysm. Rarely, small aneurysms will rupture fatally, but I believe that relatives find unlikely death less tragic to bear than tragedy after well intentioned surgery. A more conservative approach to surgery tips the risk-benefit balance towards benefit, and Scott et al's study exemplifies how such a policy has worked successfully.

With regard to the psychological consequences

1 Harris PL. Reducing the mortality from abdominal aortic aneurysms: need for a national screening programme. BMJ 1992;305:697-8. (9 September.)

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EDITOR,—I am surprised that in the Grampian region early anistreplase trial no patients were diagnosed as having unstable angina, which is the most common differential diagnosis and the most difficult to make in the early stages of a myocardial infarction. It is likely that the patients in the diagnostic groups “possible myocardial infarction” and “ischaemic heart disease” in fact had unstable angina. If only definite and probable myocardial infarctions are counted the diagnostic accuracy of the general practitioners was 57% (and of the hospital doctors 66%). This may also account for the lower mortality and fewer Q wave infarctions in the domiciliary group.

As there is no evidence that thrombolytic treatment is of benefit in infarction, and that nearly half the patients in the study received thrombolytic treatment inappropriately and were needlessly exposed to the risks of haemorrhage. Colleagues and I found similar figures in a study we undertook, with the general practitioners accurately diagnosed myocardial infarction on clinical grounds (without electrocardiography in most cases) in 45% of cases (S Rule et al, unpublished work). Again this was largely because many patients with unstable angina were thought to be in the early stages of myocardial infarction.

Diagnosing myocardial infarction at the onset can be difficult, but at a minimum a good history should be obtained, and an electrocardiogram properly interpreted. In the Grampian study the general practitioner was required to record an electrocardiogram but not to interpret it, which seems pointless. It is the electrocardiogram, however, that causes problems for many general practitioners as individually they will see few cases of myocardial infarction each year. The higher diagnostic accuracy in hospital may relate to this.

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study in the absence of electrocardiographic criteria is not necessarily generally applicable. Unless thrombolysis is restricted to those presenting early and with classic symptoms of infarction, the proportion of alternative diagnoses (2-2%) is unlikely to be substantiated. For example, phase 1 of the myocardial infarction triage and intervention project found only one in six confirmed infarctions among those evaluated before admission to hospital.

The statement that "even in an urban area there would be a temporal advantage in the general practitioner giving thrombolytic therapy in the home" is untested and cannot be extrapolated from the present study. A 999 call and shortening of the delays in hospital would have reduced the difference between home and hospital treatment substantially.

We have shown that in an urban area the time of administration of thrombolytic treatment after the onset of symptoms was reduced to a median of 150 minutes by the introduction of a "fast track" system. Until these issues are resolved it may be premature to advise widespread implementation of pre-hospital thrombolysis without electrocardiographic confirmation.

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On site medical services at major incidents

EDITOR,—Matthew W Cooke* and D G Nancekievill emphasise the need for better organisation and training for hospital staff in providing on site medical services when a major incident occurs.

A hospital coping with a deluge of casualties from a major incident might be overstretched in providing one or more appropriate teams as well as a dedicated officer enough to be the medical incident officer (the Department of Health has abandoned the term site medical officer). Cooke highlights the paucity of training in this role. Wide ranging discussions have taken place in London with representatives of the London accident and emergency consultants’ group, the London Ambulance Service, the British Association for Immediate Care, and health emergency planning officers from each Thames regional health authority with the aim of creating a cadre of 40-50 trained and accredited medical incident officers. This scheme relieves the main receiving hospital of the onerous duty of providing all the resources required at the site. The scheme has been approved by all participants, but, in view of its variation from guidance from the Department of Health, individual units will retain the option of making their own arrangements.

Two established training courses for doctors are available nationally. A one day course is run by the British Association for Immediate Care each year in Cambridge, and a three day course on the medical management of major incidents is run jointly by the Royal Postgraduate Medical School and the British Association for Immediate Care at Hammersmith Hospital. This course is multi-disciplinary and combines lectures, seminars, and practical training for NHS staff called on to work with prehospital incident officers or with mobile medical and nursing teams. In the two years that the course has been run, 102 people have been trained. The participants undertake an assessment at the end of the course, a major function of which is to allow the course organisers to assess the effectiveness of the training offered in key principles.

Though advanced trauma life support courses offer excellent training in clinical aspects, specific training is required for all prehospital care, including elements of safety and working with the emergency services.

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1. Cooke MW. Arrangements for on scene medical care at major incidents. BMJ 1992;305:748. (26 September.)

EDITOR,—We agree with D G Nancekievill that both medical incident officers and site medical teams for major incidents need to be trained and to be familiar with the procedures of the other emergency services. We disagree that the problem is a problem. The British Association for Immediate Care has been training doctors in this work for many years.

The association produced its first guide to managing major incidents in 1985, and the skills of doctors trained by the association were recognised in the report on the railway accident at Clapham. The association’s inter-service and disaster liaison committee has been working with the ambulance, police, and fire services and the armed forces, coastguard, mountain rescue services, and, latterly, the Home Office adviser on civil emergencies on all aspects of managing major incidents.

The association’s reports provide guidelines on the medical aspects of managing major incidents.