

Management of angina

Sir,
The survey by Gandhi and colleagues (January *Journal*, p.11) has demonstrated the confusion which, understandably, exists among general practitioners about referral policies for people with angina. Unfortunately the authors, rather than illuminating, have obfuscated the issues.

The ability of exercise electrocardiograph testing to identify patients who would benefit from revascularization in an already selected population of hospital patients is well demonstrated.¹ The positive predictive value of any diagnostic test is dependent on the prevalence of the studied condition in the population.² The prevalence of any serious, potentially life-threatening condition for which there is a well-known intervention will inevitably be lower in an unselected community sample than in a hospital population. Therefore, the positive predictive value of exercise testing will be less by an unknown amount and may not be sufficient to identify patients in the community in need of invasive investigation. The same may apply to diagnostic testing among unselected patients with exercise-related chest pain.

Against this background of uncertainty, it is not unexpected that the opinions and policies of general practitioners differ since, in the absence of appropriate research evidence, they must base decisions on personal experience and preference. Similarly, guidelines which do not indicate the strength of the evidence on which they are based, such as those of the British Cardiac Society,³ will shape, but not necessarily inform, the debate.

Gandhi and colleagues have stated that the onus is now on general practitioners to refer patients with angina for cardiological evaluation with a view to coronary angioplasty and bypass surgery. They have also described how the hospital cardiology community should organize itself to provide in excess of 20 000 exercise electrocardiograph tests each year. This is undoubtedly premature. A rigorous, randomized, prospective evaluation of exercise testing in patients identified from primary care is needed before any further guidelines on the management of angina in the community are promulgated.

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References

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Sir,

The survey by Gandhi and colleagues (January *Journal*, p.9) indicated that there were divergent and contradictory opinions among general practitioners about exercise testing. A questionnaire was distributed in 1992; a similar questionnaire today in Southampton would probably produce very different results.

In 1994 the Southampton and South West Health Commission purchased an open-access exercise electrocardiography facility combined with a medical interpretive service. This facility is available, via general practitioners, for all new patients with undiagnosed chest pain. A series of two-hour workshops for general practitioners, consisting of a one-hour tutorial and a one-hour practical session and limited to 12 participants, were arranged in the department of non-invasive cardiology at the Royal South Hants Hospital. Two hours postgraduate education allowance was given and in order to allay fears that general practitioners would use the service inappropriately, or would lack the skills to deal with the results, it was decided that attendance would be compulsory before having access to the service.

To date, after six months, 80 general practitioners have attended the workshop and 98% of these have assessed the workshop as 'positive' or 'very positive' in terms of improving competence in making clinical decisions as a consequence of an exercise electrocardiograph result.

Analysis of referrals for exercise testing suggest that 94% of 175 referrals have been appropriate. Outcomes of 165 referrals were: no abnormality seen (47%); early positive changes leading to referral for angiography (16%); late positive changes leading to referral back to general practitioner for medical management (19%); admission to, or other investigation in, hospital (18%).

It would now be impossible to carry out randomized controlled trials as suggested by Gandhi and colleagues to evaluate the outcome of this service,¹ but a retrospective audit of patients going through the system would be possible.

Ultimately, general practitioners will

want to have greater access to other cardiological investigations, especially 24-hour electrocardiography and echocardiography. A similar package of education and back-up clinical interpretation would be required. As Gandhi and colleagues point out, cardiologists would not be able to cope if they had clinical responsibility for all patients with a cardiological problem. If general practitioners have greater access to cardiological investigations (with appropriate training and audit), the role of the cardiologist will shift to offering more in the way of a back-up and support service than necessarily always having direct patient contact.

The challenge, therefore, is to develop purchasing contracts which reflect the overall quality of the cardiological service to a population, instead of the 'finished consultant episodes' on which such health care is currently judged.

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Sir,

After reading the article by Gandhi and colleagues (January *Journal*, p.11) describing a questionnaire survey of general practitioners, I am left in no doubt that little is known about the current management of angina pectoris in general practice. We should be most grateful to the authors, who are not themselves primary care providers, for highlighting the disparities in the awareness and practice of general practitioners in such an honest and accurate fashion.

Angina and coronary heart disease remain so frighteningly common that it behoves us all (implicitly I assume that Southampton general practitioners are representative of their colleagues in the rest of the country) to want to perform better.

I read further into the paper, seeking the recommendations which, if implemented, would ensure that patients were properly served. However, I found that the skirts of joint working party of the British Cardiac Society and Royal College of Physicians were brought in to hide behind.¹ As 14% of the 22 000 annual new cases of stable angina in the United Kingdom will have had a myocardial infarction or died six months after their presentation,² one admires the working party standard¹ that all patients aged under 70 years, with all degrees of angina, should see a cardiolo-