to the screening programme proposed by the Hypertrophic Cardiomyopathy Association and consider that more harm than good is likely to result from such a programme.

Even testing family members for the gene mutation may have serious and unforeseen consequences and should not be done without careful consideration and the fully informed consent of those being tested. Clark and Coats rightly state that this "can have value in reassuring unaffected members of families where the mutation is known." The variability of the disorder, however, will mean that a proportion of such healthy people will prove to have the mutation, with uncertainty as to their prognosis and need for treatment or a change in lifestyle as well as possible adverse consequences with regard to insurance and employment. The implications could be even more important in a wider screening setting.

We suggest that the Hypertrophic Cardiomyopathy Association should use its energy and funds to support research to evaluate the effectiveness of screening, including the psychosocial aspects, rather than in promoting a so far unvalidated programme. We are not aware of any such evaluation in progress, in Britain or the United States, and it will be increasingly difficult to undertake this if screening is adopted as part of clinical practice.

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1 Clark AL, Coats AJS. Screening for hypertrophic cardiomyopathy. BMJ 1993;306:409-10. (13 February.)

EDITOR,-We wish to focus on two issues raised by the editorial on screening for hypertrophic cardiomyopathy.1 Firstly, a distinction must be made between screening of family members of probands with the disease and screening athletes for cardiac disease, including hypertrophic cardiomyopathy. We reiterate that first degree relatives of probands with hypertrophic cardiomyopathy, particularly the young, should undergo clinical examination, 12 lead electrocardiography, and two dimensional echo-Doppler evaluation. The effort entailed and the disruption caused by screening the families of probands would not be warranted unless high risk patients could be identified and then effectively treated. Algorithms detect most high risk patients, both young and old,23 and risk factor stratification shows that in about a third of them there is a likely or predominant initiating mechanism that is amenable to specific treatment -for example, paroxysmal atrial fibrillation with amiodarone; an accessory pathway with ablation; a gradient with β blockers, calcium antagonists, or myectomy; conduction disease with a pacemaker; refractory sustained ventricular arrhythmias with an implantable cardioverter defibrillator: and relative ischaemia in the presence of normal coronary vessels with nitrates and calcium antagonists.

Management is harder when risk factor stratification shows that a person is at increased risk but does not have a likely or predominant mechanism at which treatment can be targeted. In those with non-sustained ventricular tachycardia during electrocardiographic monitoring treatment with low dose amiodarone has been shown to be effective.4 Treatment in the young has to be decided individually, based on the relative risk and assessment of the most likely mechanism. Randomised trials of effective treatment may not be feasible in hypertrophic cardiomyopathy as numbers of patients are small, event rates are low, and multiple initiating mechanisms requiring different treatments may be operating. The goal must remain to improve risk factor stratification in order to target specific mechanisms.

Screening of athletes is a different issue. Last autumn the Hypertrophic Cardiomyopathy Association and the National Sports Medicine Institute announced a joint project to assess the feasibility of screening athletes aged 15 to 30 for cardiac disease. It will assess the value of a triage approach, using a questionnaire and then proceeding in selected subjects to clinical examination, electrocardiography, and two dimensional echocardiography. It will also assess other potentially detectable cardiac conditions that would place the athlete at increased risk. These include mitral valve prolapse, long QT syndrome, the Wolff-Parkinson-White syndrome, arrhythmogenic right ventricular dysplasia, and anomalous left coronary artery.

We recognise that many aspects must be investigated before any widespread national screening programme should be undertaken. These aspects include the likely yield; the understanding of subjects, families, and sports institutes; the advice and counselling of those taking part; and the financial implications. Low pick up rates, the inability to make confident diagnoses with current technology, and the potential problems of managing those with equivocal or definite disease may render larger scale surveys unnecessary, excessively problematic, or not cost effective. Our pilot project aims to assess the feasibility of identifying people at risk, nothing more.

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- 1 Clark AL, Coats AJS. Screening for hypertrophic cardiomyopathy. BMJ 1993;306:409-10. (13 February.)
- 2 Saumarez RC, Camm AJ, Panagos A, Gill JS, Stewart JT, de Belder MA, et al. Ventricular fibrillation in hypertrophic cardiomyopathy is associated with increased fractionation of paced right ventricular electrograms. *Circulation* 1992;86; 467-74.
- 3 McKenna WJ, Camm AJ. Sudden death in hypertrophic cardiomyopathy: assessment of patients at high risk. *Circulation* 1989;80:1489-94.
- 4 McKenna WJ, Oakley CM, Krikler DM, Goodwin JF. Improved survival with amiodarone in patients with hypertrophic cardiomyopathy and ventricular tachycardia. Br Heart J 1985;53:412-6.

Community dermatology

EDITOR,—Robin Russell Jones's letter suggests that dermatologists are unhappy with pressure from general practice fundholders to hold clinics in the community.¹ He and colleagues reviewed 70 referral letters from general practitioners and, not surprisingly, found that only 27% of the general practitioners had made the correct diagnosis.

This approach is fascinating for several reasons. Not for the first time, hospital doctors have taken it on themselves to audit general practice activity rather than their own to support their viewpoint.24 The approach also shows a lack of knowledge of the reasons why general practitioners refer patients to dermatologists. Bradlow et al reviewed 3678 referrals from general practitioners to dermatology outpatient clinics and found that 26% of patients were referred for diagnosis or investigation, 14% for advice only, 63% for treatment or management, and 2% for a second opinion or reassurance.7 Thus to analyse general practitioners' referrals solely on the grounds of diagnostic accuracy is to give an incomplete picture of why patients are referred to outpatient clinics.

Armstrong *et al* described dermatology as one of the hospital specialties in which there is a lot of pressure from patients for referral.⁸ They

speculated that this may be related to the fact that patients are referred with chronic or refractory conditions that have proved difficult to treat in general practice.

Russell Jones's comments regarding the practice of good dermatology and the requirements of "adequate eyesight and clinical expertise" backed up by hospital based diagnostic and therapeutic facilities raise questions about why dermatologists often have a monopoly of these facilities and whether general practitioners should have open access to these facilities. I ask these questions so that dermatologists can provide me with evidence of their effectiveness, efficiency, and value for money.

Any assessment of the quality of outpatient referrals should take account of the timeliness, effectiveness, and necessity of the referral from the viewpoint of the patient, the general practitioner, and the hospital doctor.9 I suggest that, for the next meeting of the North West London Dermatology Audit Group, local general practitioners and general practice audit facilitators should be invited to attend and a joint audit on the quality and appropriateness of outpatient service should be undertaken by all parties. Medical audit should relate to aspects of clinical activity over which one has some control so that change can be initiated if a problem is identified. Otherwise isolated audit of general practitioners' referrals by hospital doctors is "dangerous nonsense."1

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1 Russell Jones R. Community dermatology. BMJ 1993;306:586. (27 February.)

- 2 Morrison WG, Pennycook AG. A study of the content of general practitioners' referral letters to an accident and emergency department. Br 7 Clin Pract 1991;45:95-6.
- department. Br J Clin Pract 1991;45:95-6.
 3 Sangala V, Dunster G, Bohin S, Osborne JP. Perinatal mortality rates in isolated general practitioner maternity units. BMJ 1990;301:418-20.
- 4 Bryce GC, Clayton JK, Rand RJ, Beck I, Farquharson DIM, Jones SE. General practitioner obstetrics in Bradford. BMJ 1990;300:725-7.
- 5 Sladden MJ, Graham-Brown RAC. How many GP referrals to dermatology outpatients are really necessary? *Journal of the Royal Society of Medicine* 1989;82:347-8.
- 6 Springall RG, Todd IP. General practitioner referral of patients with lower gastrointestinal symptoms. *Journal of the Royal Society of Medicine* 1988;81:87-8.
- 7 Bradlow J, Coulter A, Brooks P. Patterns of referral: a study of referrals to outpatient clinics from general practices in Oxford. Oxford: Health Services Research Unit, Department of Public Health and Primary Care, University of Oxford, 1992.
- Health and Primary Care, University of Oxford, 1992.
 8 Armstrong D, Fry J, Armstrong P. Doctors' perceptions of pressure from patients for referral. *BMJ* 1991;302:1186-8.
- pressure from patients for referral. BMJ 1991;302:1186-8.
 9 Roland M, Coulter A. Hospital referrals. Oxford: Oxford University Press, 1992. (Oxford general pretice series 22.)

EDITOR,—Robin Russell Jones says that dermatologists working in the community (presumably this includes private consulting rooms) would be incapable of providing an adequate dermatological service.¹ It should be possible to compare the cost effectiveness of community based clinics with that of hospital outpatient care. I am sure that fundholding general practitioners would be willing to participate in such studies. Perhaps the debate could then be continued on a more scientific level.

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1 Jones RJ. Community dermatology. *BMJ* 1993;**306**:586. (27 February.)

EDITOR,—We are concerned that Robin Russell Jones should hold such a poor view of general practitioners' accuracy in making dermatological diagnoses and is so opposed to community clinics.¹ As prospective third wave fundholders we are exploring the possibilities of such clinics as one way of improving care for our patients, and we consider that dermatology is a suitable specialty.