Letters

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Improving access to medical care

General practice cooperatives are coping well

EDITOR—Cooperatives present patients with the easiest access to a doctor of any part of the NHS. We have led the way in modernising out of hours primary care, and we have been arguing for, and in many areas creating, a "whole systems approach" to access. It was therefore galling to read that "patients may have bypassed general practices and cooperatives as phone lines became overwhelmed; and accident and emergency staff often had no other options but to admit."[1] These unfounded assertions are damaging.

The evidence set out in the report *Winter Pressures on Primary Care* by the Health Economics Consortium, which was commissioned by the Department of Health, showed that primary care, and cooperatives in particular, coped admirably. It is just as likely that patients would have phoned their cooperatives when faced with long delays in accident and emergency departments. Indeed, I triaged several calls made from Maidstone accident and emergency department last Boxing Day.

About 1-2% of the population contacted primary care out of hours services between 24 December 1998 and 2 January 1999. It wasn't primary care that collapsed under the strain, but a secondary service that is always working almost flat out and therefore has no spare capacity. This is because we spend less on health as a percentage of gross national product than almost any other westernised nation.

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1 Rogers A, Flowers J, Pencheon D. Improving access needs a whole systems approach. *BMJ* 1999;319:866-7. (2 October.)

Telephone consultations are the answer

EDITOR—I am a singlehanded general practitioner with a paperless practice and a list size of 2800 (50% greater than the average), so improving systems of access, as described by Rogers et al,[1] is a priority for me and my patients. Over the past three years I have done an increasing number of consultations over the telephone (table).

Apart from their convenience for doctor and patient, I believe telephone consultations have clinical merits because of improved communication. Firstly, patients are more relaxed when speaking from their own home. Despite our best intention surgeries, outpatient clinics, and medical and nursing staff may be intimidating. Secondly, the queues in surgeries and clinics will adversely influence both doctor and patient behaviour.

Telephone consultations have already revolutionised the provision of out of hours services, producing a large reduction in home visits, and NHS Direct is a popular idea whatever the reservations of the profession. Provided that good computerised clinical records are available, I believe telephone consultations could significantly improve access to both primary and secondary care.

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1 Rogers A, Flowers J, Pencheon D. Improving access needs a whole systems approach. *BMJ* 1999;319:866-7. (2 October.)

Numbers (percentages) of surgery, telephone, and home consultations over three years

	Surgery consultations	Telephone consultations	Home visits	Total
1 April 97-31 March 98	7511 (88)	378 (4.4)	639 (7.5)	8528
1 April 98-31 March 99	7377 (81)	1108 (12)	632 (7)	9117
1 April 99-8 October 99	3686 (79.4)	676 (14.6)	280 (6)	4642

North-South research in developing countries must respond to community's priorities

EDITOR—Edejer observes that North-South research collaboration is plagued by differing interpretations of ethical standards of doing research in developing countries, an example being the controversy over the Bangkok trial of short course zidovudine for perinatal transmission of HIV-1.[1]

One aspect of this controversy concerned the standard of care offered to patients participating in the study: should it be the best current treatment in the country of the sponsoring institution or the best local treatment? Médecins sans Frontières provides primary health care to patients with AIDS in Thailand and has reported that for one patient participating in the Bangkok trial no treatment of her symptomatic HIV infection was offered by the study hospital.[2] It seems that neither side in the ethical debate was in touch with the real situation.

Two key documents to be considered are the Declaration of Helsinki and a set of guidelines developed by the Council for International Organisations of Medical Sciences in collaboration with the World Health Organisation. The Declaration of Helsinki was written by physicians and has been debated by the World Medical Association.[3] The group that developed the guidelines of the Council for International Organisations of Medical Sciences was made up of representatives of ministries of health, members of medical and other health related disciplines, health policymakers, ethicists, philosophers, and lawyers.[4] These guidelines are also under review. Consumer representatives are not members of either the council or the World Medical Association.

Guideline number 8 of the Council for International Organisations of Medical Sciences prohibits research that involves subjects in underdeveloped communities

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unless it is responsive to the health needs and priorities of the community in which it is to be carried out. The Helsinki Declaration is silent on this issue.

If research is to be responsive to the priorities of the community in which it is to be carried out then sponsoring institutions should ask community members what their priorities are. Edejer touches on this issue when she says "think local" when addressing inequalities in research funding, but the need for advocacy for those subjects taking part in research in developing countries is not mentioned. Advocacy groups in Thailand are developing a watchdog role in monitoring ethical practices in research,[5] but there is a lack of institutional mechanisms for them to give feedback.

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1 Edejer T. North-South research partnerships: the ethics of carrying out research in developing countries. *BMJ* 1999;319:438-41. (14 August.)
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Managing drug misuse in general practice

Republic of Ireland has set up scheme to regulate methadone prescribing by GPs

EDITOR—The Republic of Ireland has adopted a similar approach to drug misuse to that discussed in Keen's editorial.[1] General practitioners are encouraged to become involved in the treatment of drug misusers by legislation introduced in October 1998 to regulate the prescribing and dispensing of methadone.[2]

Providing methadone maintenance in general practice has led to encouraging reductions in the use of illicit drugs,[3] but concerns have been expressed about the problems of double prescribing and the availability of methadone on the black market. Despite the existence of a central methadone treatment list in Ireland since 1993, doctors were not legally obliged to register patients. An added problem was that the presence of large numbers of drug users attending individual private general practitioners or pharmacies had contributed to considerable local community resistance to health boards establishing locations for treatment.

The main points of the new protocol are as follows. All methadone treatment is now free. Only methadone of 1 mg/ml concentration can be prescribed. All patients for whom methadone is started must be registered on the central treatment list. For patients being prescribed methadone in general practice a treatment card, incorporating the patient's details and photograph plus the doctor's details, must be lodged in a specified dispensing pharmacy.

Numbers of general practitioners and pharmacies participating in Irish methadone regulations in May 1998 and May 1999, before and after legislative changes were introduced to regulate prescribing and dispensing of methadone

	31 May 1998	31 May 1999
General practitioners:		
Within Eastern Health Board area	82	111
Outside Eastern Health Board area	10	28
Total	92	139
Pharmacies:		
Within Eastern Health Board area	88	150
Outside Eastern Health Board area	0	37
Total	88	187

Doctors, depending on training, are limited to certain numbers of patients. Level 1 general practitioners can prescribe to 15 patients whose condition has been stabilised in a clinic. Level 2 general practitioners can prescribe to 35 patients, who can be a combination of patients whose condition has been stabilised and new patients. Training and regular audit are organised jointly by the relevant health board and the Irish College of General Practitioners. Pharmacists are also limited, to a total of 50 patients. Remuneration for both groups of professionals is provided centrally, with recognition given for daily dispensing by pharmacists. All the Irish health boards are represented on a methadone protocol implementation committee to oversee this initiative.

The success of this legislation, which aspires to normalise drug treatment in primary care, will only become apparent over time. Since October 1998 the numbers registered centrally have increased from 3200 to 3750, of whom 1000 are in treatment through general practice. Despite the stricter regulations the numbers of general practitioners and pharmacists involved continue to increase (table). This perhaps indicates that these professionals have overcome some of their fears about treating drug users and are prepared to give the new legislation a chance to work.

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1 Keen J. Managing drug misuse in general practice. *BMJ* 1999;318:1503-4. (5 June.)
2 Department of Health. *Misuse of drugs(supervision of prescription and supply of methadone) regulations, 1998.* Dublin: Stationery Office, 1998. (Statutory Instrument No 225.)
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Study is being done of Scottish GPs' involvement with users of illicit drugs

EDITOR—The latest version of the guidelines on the clinical management of drug misuse[1] have indeed sparked controversy, and not all practitioners will endorse every recommendation in the guidelines, as highlighted in Keen's editorial.[2] To inform the implementation process for the guidelines and to maximise their uptake, we must be aware of the nature and extent of any such disagreements. It is particularly relevant in this context that we collect this information from general practitioners, because of the central role that is proposed for them in the guidelines.

The chief scientist's office of the Scottish Office has recently awarded us funding for a Scotland-wide explorative study of the factors influencing Scottish general practitioners' treatment decisions for, attitudes toward, and involvement with users of illicit drugs. One of the questions we will address is the level of awareness of and attitudes towards both the new clinical guidelines for managing drug dependency and similar policy documents—for example, *Tackling Drugs in Scotland.*[3]

For the implementation of any guideline it is essential to be aware of the obstacles and barriers that exist.[4] This is particularly important for the more controversial topics such as the management of drug misuse. For further details of this study, readers should contact Dr Catriona Matheson at the address below.

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1 Department of Health. *Drug misuse and dependence: guidelines on clinical management.* London: Stationery Office, 1999.
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Stillbirth as risk factor for depression and anxiety in subsequent pregnancy

References were misinterpreted

EDITOR—Hughes et al state that "maternal anxiety in pregnancy is associated with earlier births and lower birthweight"[1] and then cite two papers, one of which found no relation between anxiety and prematurity or low birth weight[2]; the other found no relation between anxiety and low birth weight but did find a relation between anxiety and preterm birth.[3] This second study was, however, fundamentally flawed: it

consisted of a highly selected group of only 90 women, less than 3% of whom had smoked, drunk alcohol in pregnancy, or taken illicit drugs.[3] Assessment of the women was confined to the third trimester. The association found between anxiety and prematurity was based on 12 infants being born prematurely. No confidence intervals were given throughout the paper.

Of course researchers will always cite papers that support their observations or hypotheses. However, it is interesting that apart from misinterpreting the above papers, the authors, two based at St George's Hospital, failed to cite the St George's birthweight study of 1515 women, which measured anxiety and depression throughout pregnancy and found no association with either prematurity[4] or low birth weight.[5]

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1 Hughes PM, Turton P, Evans CDH. Stillbirth as risk factor for depression and anxiety in the subsequent pregnancy: cohort study. *BMJ* 1999;318:1721-4. (26 June.)
2 Copper RL, Goldenberg RL, Das A, Elder N, Swain M, Norman G, et al. The preterm prediction study: maternal stress is associated with spontaneous preterm birth at less than 35 weeks gestation. *Am J Obstet Gynecol* 1996;175: 1286-92.
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5 Brooke OG, Anderson HR, Bland JM, Peacock JL. Effects on birthweight of smoking, alcohol, caffeine, socioeconomic factors, and psychosocial stress. *BMJ* 1989;298: 795-801.

Depression after stillbirth may simply reflect normal process of grieving

Editor—I was pleased that the paper by Hughes et al[1] was given such prominence, as parental outcomes after stillbirth are somewhat underresearched. Much of the advice given to parents after such losses is either empirical (and probably incorrect) or based on outdated or poorly conducted studies. The authors claimed to have found an association between a short interval (less than 12 months) between stillbirth and next conception and increased vulnerability to depression and anxiety. They cautiously accept that personalities of parents who chose to conceive earlier might have been such that they would be more likely to be depressed and anxious. But there is a potentially fundamental flaw that may invalidate either conclusion, and this may be a pitfall for other researchers in this important area.

The subjects of the study were recruited into the study during pregnancy, the interval from stillbirth to conception was calculated, and psychological assessments were performed in the third trimester and postnatally. Parents are likely to have been more depressed and more anxious sooner after stillbirth than after a lengthy period of bereavement and adjustment. The methodology of the study fails to take account of the natural course of depression and anxiety after stillbirth. It might well be that the researchers have merely recorded the natural course of bereavement (unaffected by a subsequent pregnancy). Couples (say) a year after a stillbirth are more likely to be depressed and anxious than after (say) two years—whether a pregnancy has intervened or not.

Furthermore, the researchers justify their concerns about an increased rate of depression or anxiety, as depression may be associated with poor outcome of pregnancy—various studies are cited in support of this. In particular, the authors draw attention to research linking depression with poor compliance with antenatal care; my experience, however, is that women who have experienced stillbirth are highly compliant with antenatal care. I am not aware of any studies that found poor obstetric outcomes associated with depression after stillbirth.

Accordingly I do not believe that the paper justifies obstetricians and others now advising bereaved couples to delay the next pregnancy. I will continue to advise couples that they should "wait until they feel ready and have adjusted to their loss."

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1 Hughes PM, Turton P, Evans CDH. Stillbirth as risk factor for depression and anxiety in subsequent pregnancy: cohort study. *BMJ* 1999;318:1721-4. (26 June.)

Authors' reply

Editor—The brief introduction to our paper[1] does not attempt a review of the evidence that antenatal anxiety adversely affects the fetus, but merely offers examples of the many studies reporting broadly similar findings. The study of Perkin et al did not confirm this, but its findings were unusual. In claiming that Copper et al found no relationship between anxiety and preterm birth and low birth weight Perkin is a little pedantic: Copper et al reported a significant association between stress and preterm birth and low birth weight.[1] In addition to the many human studies, studies in experimental animals show that maternal prenatal stress affects the developing hypothalamo-pituitary-adrenal axis.[2 3]

We did not share Griffiths's experience that women who have suffered stillbirth are highly compliant with antenatal care; in our group we observed that failure to attend antenatal clinics was not uncommon, especially among younger and poorer women. We agree with Griffiths that, to an extent, we recorded the natural course of grief, but our study showed that depression and anxiety in the pregnancy after stillbirth was higher in those conceiving within a year and lower in those conceiving later. There was no indication that early distress was relieved by a new pregnancy. In addition, if it were simply that those who became pregnant within one year were still sad, then differences between groups might be expected only in the observation made in the third trimester. In fact the profile was for those who conceived early to become more depressed again one year after the next birth. This seems more congruent with a delayed than a "natural" grief.

The idea that women might have been suffering delayed grief gives some support to Lewis's claim that rapid replacement pregnancy may be a vulnerability factor in prolonging symptoms of grief.[4] Although we acknowledge that vulnerability to depression may be a common factor in choosing to be pregnant sooner, we would then expect a history of depression in the more vulnerable; in fact, history of depression was the same (and low) in both groups.

Of course, natural grief is not a biological template to be imposed on people. Parents must choose what they wish to do, but informed by available evidence. The point we wanted to make is that depression and anxiety are distressing for the mother and may have an adverse effect on the fetus and infant, so parents might wish to wait until they feel recovered and emotionally ready for another pregnancy.

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Clinical review overstates genetic case for schizophrenia

Editor—McGuffin and Martin overstate the case for the genetic basis of psychiatric and behavioural disorders and are overoptimistic about the potential benefits of DNA testing.[1] For example, in common with other proponents of the genetic theory of schizophrenia, they quote the most strongly positive studies, ignoring negative ones and ones that show weaker effects.

Some family studies of schizophrenia have found no increased risk in first degree relatives[2] or only slightly higher risks than those in the normal population.[3] The 50% concordance rate for monozygotic twins commonly quoted is the highest concordance rate that has been found in any series of twins; other series have yielded rates as low as 14%.[4] In addition, some large adoption studies found no increased risk of schizophrenia in biological relatives of people with schizophrenia, and the schizophrenic spectrum disorder was invented to render the results positive.[5]

It is also disingenuous to suggest that genetic research will reduce stigma. The stigma associated with Alzheimer's disease does not seem to have declined since a genetic component to the aetiology of the

disease was identified. More probably genetic research will add to the suffering and guilt experienced by affected families, as seen in families with Huntington's chorea.

Enthusiasm for genetic explanations is not harmless, as the history of eugenics makes clear. I recently came across a clinician who advised a couple, both of whom had schizophrenia, that they should not have children. At a more abstract level, locating the source of a problem in a person's genes reduces the moral complexity of psychiatric and behavioural problems and diverts attention away from the social and economic causes of human distress.

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Folic acid supplementation before pregnancy remains inadequate

EDITOR—Women who take folic acid when trying to conceive have been shown to have a lower risk of a pregnancy affected by neural tube defects.[1] The UK Department of Health has recommended that folic acid is taken by all women planning a pregnancy.[2]

The request card used in antenatal screening for Down's syndrome and open neural tube defects provides a simple and useful opportunity to determine the proportion of women who take folic acid supplements before pregnancy. In March 1997 St Bartholomew's Hospital Medical College introduced a revised request card for women requesting screening on an individual and fee paying basis (private screening). The following question was added: "Did you take a daily supplement containing folic acid before becoming pregnant (if so enter 1), or as soon as you knew you were pregnant (if so, enter 2). If neither enter 0."

In November 1997 the same question was added to the request card used for the NHS funded screening programme at Stepping Hill Hospital, Stockport.

The proportion of women completing the question was 78% among women screened privately and 88% among women having NHS screening. The table shows the response of women who completed the question between 1 January 1998 and 31 December 1998.

Overall, 45% of women took a folic acid supplement immediately before becoming pregnant. Our results confirm the increase in the use of folic acid supplements before pregnancy in the United Kingdom. For example, other studies have reported rates of use of 1.8% in 1993,[3] 18.2% in 1994,[4] 27% in 1995,[5] and 30.6% in 1997,[6] suggesting that public education regarding folic acid has had some success. Unfortunately, however, our results show that six years after the Department of Health recommendation on the intake of folic acid before pregnancy,[2] over half of pregnancies occur in women who have not taken folic acid at the right time. The finding underlines the importance of a population approach in which flour is fortified with folic acid. This would reach all pregnant women.

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1 MRC Vitamin Study Research Group. Prevention of neural tube defects: results of the MRC vitamin study. *Lancet* 1991;338:132-7.
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Use of folic acid supplements among women undergoing antenatal screening for Down's syndrome and neural tube defects in 1998. Values are numbers (percentages) of women

	Private screening	NHS screening	Total
Folic acid taken before pregnancy	422 (50)	523 (42)	945 (45)
Folic acid taken once known to be pregnant	297 (35)	542 (44)	839 (40)
No folic acid taken	129 (15)	173 (14)	302 (15)
Total	848 (100)	1238 (100)	2086 (100)

Legal safeguards for audit process are a bad idea

EDITOR—Beresford and Evans argue unconvincingly that the process of quality improvement in healthcare organisations in the United Kingdom should be protected from public view by confidentiality arrangements.[1] These arrangements would prevent individual clinicians being identified and would give legal protection to quality improvement activities and their results so that they could not be used in legal actions against healthcare professionals or healthcare organisations.

No other professional groups or organisations in the United Kingdom of which I am aware have such legal protection for their quality improvement activities. Such provisions do exist in most states of the United States and in Australia, but these countries are unusual. The two main arguments for having such protection do not stand up to examination, at least in the context of the United Kingdom.

Firstly, it has been argued that the absence of such protection will prevent health professionals being open and honest about quality problems, but there is no evidence that this is so. Indeed, it can equally be argued that imposing a blanket of confidentiality on quality improvement activities and their results can hinder the speedy identification of quality problems and the involvement of stakeholders in finding and implementing solutions to those problems.

Secondly, it is suggested that the existence of records of quality improvement or clinical audit activities might compromise a healthcare professional's or organisation's defence against a patient's action for negligence, but this argument is predicated on an outdated "defence at any costs" view of such litigation. The Woolf reforms of the management of clinical negligence litigation in the British courts are aimed at producing less adversarial posturing and more consensus about the facts and issues in each case.[2] When a defendant (individual or organisation) has made errors it is in everyone's interest to acknowledge them rather than to cover them up or deny them. The existence of records of quality improvement activities could help to identify such errors or might equally help to show good practice. It is a mistake to see such records as being potentially damaging to the defence's case; they could just as well be supportive.

I am sure that some doctors would like to be in the same position as barristers, who cannot be sued for negligence, whatever they do; it is difficult, however, to find many people who think this a good idea. Inevitably, Beresford and Evans's proposal, however well intentioned, smacks more of professional self protection than of a desire to ensure effective clinical governance in the NHS.

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1 Beresford NW, Evans TW. Legal safeguard for the audit process. *BMJ* 1999;319:654-5. (11 September.)
2 Woolf, Lord. The medical profession and justice. *J R Soc Med* 1997;90:364-7.

Obstacles in organisation of service delivery reduce potential of epidural analgesia

EDITOR—The editorial by Buggy and Smith paints an overoptimistic view of the benefits of epidural analgesia.[1] We agree that there is strong evidence that reducing the afferent barrage attenuates the physiological

Patients' pain experience with epidurals after major surgery in Ninewells Teaching Hospital, Dundee, 1993-7 (n=506); patient groups are mutually exclusive

Overall postoperative pain experience	Definition of that pain experience	No of patients	Median time with epidural (interquartile range) (h)	No of epidurals removed because of technical problems*	No of epidurals removed because of pressure on beds
Excellent	>80% of time with no pain even on movement; never with pain at rest	165	44 (38-62)	14	23
Very good	>50% of time with no pain even on movement; single instance only of pain at rest	159	44 (36-61)	21	15
Intermediate	<10% of time with pain at rest; remainder of time pain free or with some pain on movement	70	46 (35-67)	5	11
Poor	>10% of time with pain at rest	90	33 (19-44)	23	17
Failure	Epidural withdrawn because of inadequate analgesia	22	22 (12-30)	—	—
Total		506	43 (30-56)	63	66

*Including blockage, leakage, dislodgment, and ineffective or unilateral blocks.

response to surgery, with great benefit to the patient. But the authors gloss over the practical challenge of attaining consistently effective epidural analgesia in the postoperative phase.

An audit of postoperative pain experienced within a well established acute pain service (n = 506) shows a more complex and, we suspect, more realistic picture (table). Around a third of patients had almost perfect pain relief, never having pain at rest and rarely having pain even on movement for a median of 44 hours. Another third of patients experienced very good pain relief, reporting only a single instance of pain at rest over a similar period. For the remaining patients, however, pain relief was variable and sometimes extremely poor: 4% never achieved analgesia with the epidural and the technique was abandoned. More disappointingly, a quarter of patients had their epidural removed because of technical problems (12%) or resource constraints (13%). Thus many patients were deprived of good or even excellent pain relief because of remediable service factors.

Attainment of analgesic excellence, and thus the realisation of the true potential of modern analgesia, depends on more than simply selecting the right modality. Issues to do with staff training, staffing levels, and the organisation of service delivery remain. Running an effective epidural service requires dedicated beds with adequate nursing provision and assiduous attitudes towards achieving excellence across the clinical team.

Epidural analgesia has much to offer patients. Stimulating service development that can deliver this potential is not necessarily furthered by focusing on the physiological responses to the neglect of some of the important practical obstacles to high quality care.

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Ethnic and sex differences in selection for admission to medical school

Don't let's discriminate against academic brilliance

Editor—It seems naive to suggest that Nottingham Medical School's selection process avoids discrimination.[1] Academic ability is scored as pass or fail, whereas a questionnaire about work experience, extracurricular activities, and positions of responsibility is scored quantitatively, as are the applicant's and referee's statements and interview. This process is presumably based on the idea that doctors need only a minimum academic ability. It would be equally true that potential doctors need only an acceptable level of achievement in extracurricular activities, positions of responsibility, and the other factors that are highly rated.

A questionnaire on work experience, extracurricular activities, etc might measure some objective markers of suitability, but the required answers could probably be inferred from the questions and suitable experience could be arranged if it seemed necessary. Students from less privileged backgrounds have less opportunity to develop skills in sport or music or to gain voluntary work experience. Equally, while candidates who have been given awards and positions of responsibility would be ranked highly, putting great weight on this may only perpetuate unfair discrimination that has been made by others.

Medicine encompasses a huge range of careers; our numbers include leaders and followers, workhorses and creative thinkers, the quietly compliant and the revolutionary. We need to recruit a similarly wide range of students, including the academically excellent.

Of course potential medical students need communication skills; extracurricular interests probably reflect a balanced personality; and it is useful to have some knowledge of the health service before applying to study medicine. But to attempt to quantify these things and discount academic achievement ignores one of the few objective criteria we have. Academic ability must, like everything else, be interpreted in the context of the applicant's background, and it will rarely be the overwhelming factor in selection.

The Nottingham approach risks two things. Firstly, well organised schools will see that any potential medical student is sent for work experience in hospital, put in a sports team, made secretary of the debating society, coached in interview skills, told what to write in the personal statement on the application form, and given a glowing reference. Secondly, we may populate our medical schools with affable clones, all of whom are quite good at sport and will go on to make very ordinary doctors. Given the subjectivity of assessing the factors that Nottingham holds paramount, regardless of what numbers are attached, surely there is room to give a little credit for academic excellence.

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1 James D, Driver L. Ethnic and sex differences in selection for admission to Nottingham University Medical School. *BMJ* 1999;319:351-2. (7 August.)

Discrimination is not always explicit

Editor—James and Driver's analysis of applications to Nottingham Medical School by candidates from the United Kingdom and the rest of the European Union in 1997 found that significantly more white than non-white applicants were offered a place.[1] They state that the higher rates of offers to white applicants do not represent discrimination because they arise at stages in the selection process which are objectively scored without reference to ethnic group.

We now know, however, that discrimination does not have to be explicit, overt, and readily identifiable for it to exist within institutions. As the Macpherson report—prepared after the murder of a black youth in London—makes clear,[2] institutional discrimination can exist where the allegedly objective practices, protocols, and procedures of an organisation result, albeit unintentionally, in deleterious outcomes for certain groups. In other words, discrimination can be subtle and insidious too.

The fact that a procedure is shown to result in significantly fewer applicants from one group being successful is, in itself, evidence that discrimination may be occurring. Reference to ethnic group being

explicitly made is not a necessary condition for discrimination.

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1 James D, Driver L. Ethnic and sex differences in selection for admission to Nottingham University Medical School. *BMJ* 1999;319:351-2. (7 August.)
2 Macpherson W. *The Stephen Lawrence inquiry. Report of an inquiry by Sir William Macpherson.* London: Stationery Office, 1999. (Cm 4262-I.)

Might selection criteria be surrogates for other determinants?

EDITOR—In their study on differences in the rate of accepted applications for a place at Nottingham Medical School by ethnic group and sex, James and Driver conclude that the higher rate of offers to white and female applicants does not represent discrimination.[1] They claim that the academic and questionnaire stages of the decision process are "objectively scored without reference to ethnic group or sex." The data presented, however, clearly show that non-white students and men are more likely to be rejected because they do not meet the minimum academic and extracurricular standards.

I am not aware of any data that convincingly show a lack of association between academic or questionnaire scores and ethnic group or sex. Moreover, James and Driver refer to a study by McManus that found evidence that candidates from ethnic minority groups are particularly disadvantaged across a range of A level scores.[2]

The academic and questionnaire documentation may not "refer" to ethnic group or sex, but the marks themselves may be associated with socioeconomic status, specific ethnic group, or other variable for which there was no stratification. Therefore, because James and Driver present no data linking (or otherwise) non-white and male students to disadvantage, the conclusion that no discrimination exists is unfounded.

In stratifying rejection at the different decision stages the authors seem to have lost sight of the broader picture of their results. Women were nearly twice as likely to be accepted as men (odds ratio 1.927), and white applicants were more than twice as likely to be accepted as non-white applicants (odds ratio 2.222). The authors themselves state that selection by ethnic group or sex would be discriminatory.

Before concluding that there is no discrimination, the authors should determine whether academic and questionnaire selection criteria are not simply surrogates for possible determinants of these criteria such as ethnic group and sex.

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2 McManus IC. Factors affecting the likelihood of applicants being offered a place in medical schools in the United Kingdom in 1996 and 1997: prospective study. *BMJ* 1998;317:1111-7.

Reanalysis using appropriate denominators shows that results and conclusions are flawed

EDITOR—James and Driver conclude that the admissions process at Nottingham University Medical School is non-discriminatory despite higher rates of offers to white and female applicants because "at the statement review and interview, where true discrimination could operate, non-white and male applicants are significantly more likely to be offered a place."[1]

The authors explain that the selection process consists of four stages: academic, questionnaire, statement review, and interview. Only those candidates successful at each stage are considered for the following stage. To calculate the failure rate at each stage, it seems logical to use the number of applicants considered for that stage as the denominator. However, the authors continue to use the initial number of applicants at the first stage as the denominator for each stage, thereby producing flawed proportions and significance tests. A reanalysis of the results for ethnic groups is shown in the table. A similar pattern is seen on reanalysis of results by sex.

The results show that the authors' claim that the statement review and interview stage favour non-white ethnic groups is untrue. If anything, a greater proportion of non-white candidates who are interviewed are rejected in comparison with the white candidates (although the difference is not significant). The strongest determinant for selection seems to be the questionnaire that assesses non-academic factors, with a 20% difference in the rejection rates for the two groups.

It is easy to understand how this might operate—many ethnic groups with their cultural emphasis on education are likely to perform poorly on questionnaires assessing extracurricular activities. A large exclusion rate at this stage would mean that only the students in the non-white ethnic groups with the best academic performance will make it to the final stages. Equal performance at these stages is therefore unlikely to reflect equal treatment because of dissimilar cohorts of students.

The bottom line, both from this study and many others showing that white applicants are more likely to get preference, remains unchanged.[1–3]

Faulty statistics and self congratulatory articles should not be allowed to distract from the facts and the genuine efforts needed to make medical education and training in the United Kingdom non-discriminatory.

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1 James D, Driver L. Ethnic and sex differences in selection for admission to Nottingham University Medical School. *BMJ* 1999;319:351-2. (7 August.)
2 McManus IC. Factors affecting likelihood of applicants being offered a place in medical schools in the United Kingdom in 1996 and 1997: prospective study. *BMJ* 1998;317:1111-7.
3 Collier J, Burke A. Racial and sexual discrimination in the selection of students for London medical schools. *Med Educ* 1986;20:86-90.

Authors' reply

EDITOR—Roskell wonders if there is a danger of the Nottingham system producing a medical student and doctor clone. This does not happen. Even if on paper applicants have comparable academic and non-academic scores, they are all individuals from differing backgrounds with different personalities. This leads to a diverse population of medical students. To try to achieve equal opportunities for all applicants we must, where possible, use objective criteria. We believe that in Nottingham we are closer to that goal than are some medical schools. Our present system is not perfect, but we continue to improve it.

Roskell implies that we do not give credit for academic excellence. That is incorrect. Space did not allow a full description of the scoring system we use: extra points are given for higher academic achievement—yet this approach in itself raises questions with respect to discrimination.

Both Rushforth and Chen imply that the academic and non-academic criteria used in our selection process may be surrogates for discrimination, albeit unintentional discrimination. We agree. Indeed, we raised this in the discussion section of the paper we originally submitted to the *BMJ* but had to remove the section when the paper was accepted only as a short report.

Surrogate discrimination could arise in several ways when academic criteria are used. For most applicants we can use only predicted A level grades, and we have some evidence that schools differ in the accuracy with which they predict actual achievement at A level; some schools may be practising discrimination in predicting grades. This possibility has never been examined to our knowledge. Another way in which surrogate discrimination may arise is that there may be genuine underachievement by students from ethnic minority backgrounds because of a variety of factors such as poor schooling

Numbers of candidates rejected at each decision making stage, with differences by ethnic group

	White			Non-white			
	Rejected		No considered	Rejected		No considered	Mean difference (%) (95% CI)
Decision category	%	No		%	No		
Academic stage	20.5	400	1954	29.8	176	591	–9.3 (–13.1 to 5.4)
Questionnaire stage	53.2	826	1554	73.3	304	415	–20.1 (–25.5 to 14.7)
Statement review	46.8	341	728	43.2	48	111	3.6 (–6.4 to 13.6)
Interview	42.1	163	387	52.4	33	63	–10.3 (–23.5 to 2.9)

and socioeconomic deprivation. This raises the debate about access to university courses and the question of whether lower academic criteria should be set for applicants from such a background. We would be interested in Roskell's view on this.

With regard to surrogate discrimination when non-academic criteria are used, we agree with Rushforth and Chen that scoring certain activities and assuming them to be indicators of certain attributes are unsatisfactory. Indeed, this year, to try to overcome this problem, we are asking applicants to provide evidence that they have the specific attributes we think are important for a career in medicine.

Some of the above responses are relevant to Kinra's comments. In addition, he correctly points out that the numbers of male applicants and those from ethnic minorities progressing at the statement and interview stages is significantly higher only in comparison with all applicants. When the numbers are analysed using the denominators of only those applicants reaching the statement and interview stages respectively there are no significant differences. Thus, there is no significant evidence of discrimination at the statement and interview stages. The priority in our ongoing review of the admissions process therefore must be to eliminate mechanisms of discrimination (direct and indirect) in the academic and questionnaire stages. However, that does not mean that we are content with the statement review and interview procedures. For example, since 1998 we have provided training sessions (which include equal opportunity training) for all those involved in the admissions process.

Finally, we would restate our overall long term aim: to identify objective scorable criteria that predict success on the medical course and in a subsequent medical career and to incorporate these into our selection process.

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Study did not mention preregistration year in general practice

EDITOR—The paper by Stewart et al identifying appropriate tasks for preregistration house officers continues the important debate about defining their job description, in terms of both educational and service components.[1] It makes no mention, however, of preregistration house officers in general practice.

In 1997 the General Medical Council published its new recommendations for the preregistration house officer year.[2] The report gives support and guidance specific to preregistration house officers in general practice. In August 1998 over 30 new preregistration house officer rotations in general practice were established in the United Kingdom; they represent a major new educational challenge for general practice.

Experience in general practice offers several benefits to newly qualified doctors, who can experience independence and responsibility at an early stage of their medical careers. A previous study has suggested that preregistration house officers in general practice spend over half of their working week in one to one contact with patients.[3] The hours are less exhausting than in hospital, and there is more time for study and reflection. General practice has a tradition of individual teaching. This is ideal for a newly qualified doctor experiencing for the first time a responsible and demanding job, as it gives ample opportunity for clinical supervision, pastoral care, and career guidance.

The paper identifies and lists tasks of preregistration house officers. From these lists it is clear that some skills are best learnt in hospital but others might be best learnt in general practice. An improved educational model would be an integrated educational year of four months' medicine, four months' surgery, and four months' general practice.

Communication skills are central to general practice. A general practitioner trainer will observe a doctor in training in consultation with patients, by sitting in with them or using video recordings, or both. This might be the last time in his or her professional lifetime that the doctor could receive feedback on his or her communication skills with patients. Other core skills, not addressed in this study, could also receive attention in general practice, such as gaining an understanding of the social and emotional influences on health and the natural course of diseases.

It will be interesting to see if future studies on this important year of medical education take a wider view of core skills in the preregistration house officer year and include a discussion on where best these skills might be gained—in hospital, in general practice, or elsewhere.

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Increase in staff numbers may reduce doctors' "presenteeism"

EDITOR—Forsythe et al show, on the basis of self reports, that doctors regularly ignore BMA ethical guidelines that advise against self-prescribing or prescribing for colleagues or relatives.[1] Concerns about confidentiality were commonly reported. Proposals to address these problems include more "doctors' doctors" and an improved occupational health service for general practitioners.

The opportunities and anxieties that doctors face in their everyday lives may be important factors. For example, research in Edinburgh in which I participated found that many junior hospital doctors were doubtful that an occupational health service had an effective role for mental health problems.[2] Anecdotal experience also suggests that highly confidential information about colleagues' health problems can quickly enter the hospital grapevine. Doctors gossip: few in the medical profession will not have heard other clinicians completely disregard their duty of confidentiality to a doctor-patient. Either they believe that colleagues have an insatiable curiosity or else they seek to share—and thereby reduce—their personal burden of responsibility. The causes are likely to be multiple (being a doctors' doctor can be anxiety provoking), but every disclosure is a straightforward and serious breach of discipline.

Applying the vignettes we had developed in Edinburgh, Forsythe et al also reported on senior doctors' reluctance to stop working and consult others if they were to become ill. Applying the vignettes (all drawn from our personal experience of doctors' health behaviour) to junior doctors in training, we had found a similar stoicism.[2] In fact, we had decided to tone down the vignette on 12 hours' haematuria as it seemed too far fetched: the original was "developing anuria" (after which I had gone to work as usual!). Again the causes of doctors' stoicism are likely to be complex, some admirable and others commonplace (the anxiety about becoming ill, etc), but a recurring factor in many reports is the frequent difficulty that doctors describe in arranging locum cover when they become ill and the extra burden that then falls on already hard-pressed colleagues.[3 4]

Too narrow an examination of doctors' health behaviour risks overlooking these important organisational issues. Only a substantial increase in medical staffing may noticeably reduce doctors' "presenteeism." Otherwise, in the face of declining vigour or new health concerns, giving up clinical practice or taking early retirement may become senior doctors' main method of managing their workload.

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1 Forsythe M, Calnan M, Wall B. Doctors as patients: postal survey examining consultants' and general practitioners' adherence to guidelines. *BMJ* 1999;319:605-8. (4 September.)
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