

## Rationing health care

### Allocating resources only to treating present dangers would ruin preventive health care and jeopardise future lives

EDITOR—In his article on the objectives of the NHS John Harris argues that “there is a good principle that real and present dangers should be met before future and speculative ones.”<sup>1</sup> Has he really thought about the implications of this? Immunisation, health promotion, and preventive interventions would all be swept away in favour of curative treatments. As the lives lost by such a shift in resources would be future lives and the people not identifiable beforehand, they would count for nothing. The state’s obligation to protect the “citizen against threats to her life and liberty” only applies to immediate threats.

Harris argues that the health budget should be larger, as if a larger budget will somehow allocate itself and obviate the need for choosing between competing alternatives. He also claims that health care (and he means curative care) should be afforded a high priority in the state budget. This presents a simple dilemma: should the state

spend more on raising the income of impoverished families or on resources to provide more intensive care beds? Since raising the income of poor families has no impact on immediate threats to health, according to Harris we must clearly prefer spending more on providing more intensive care beds.

Harris fails to recognise the first problem in identifying healthcare needs. If resources are not the immediate constraint on a healthcare system then rationing takes place on the basis of whether a need (or a want) can be legitimised as a healthcare need. In times of plenty the remit of formal health care expands. Harris seems to desire this process to continue. In wishing for more of our labour to be devoted to financing this end, he can see no cost or opportunity cost to the process. Am I alone in finding this naive?

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1 Harris J. Maximising the health of the whole community: the case against. *BMJ* 1997;314:669-72. (1 March.)

### Cost effectiveness should not be the only criterion in deciding on treatment

EDITOR—I am a lay reader of the *BMJ* and was intrigued by the rationing debate focusing on maximising the health of the whole community.<sup>1 2</sup> I should like to contribute to the debate as a current NHS outpatient.

In his advocacy of “the ethical objective” of maximising the health of populations A J Culyer states that “health care ... derives its ethically compelling character from the ethicality of the flourishing that is the ultimate good.”<sup>1</sup> Yet in his reflections on distributive justice linked with cost effectiveness, he does not state whether he has long term or short term effectiveness in mind.

However, the question of the ethics of administering treatments which are indubitably cost effective in the short term but do not “give [patients] maximum life expectancy coupled with the best quality of life,” as described by John Harris, needs closer examination.<sup>2</sup>

Allow me to cite my own case as an example. When I was living in Germany in 1984 I was diagnosed as having polyps. Within a fortnight I had them removed under local anaesthetic as an outpatient. I

returned to work the same day. I was not privately insured. The polyps did not reappear until last year.

Last July, as an NHS outpatient of the ear, nose and, throat department of a London hospital, I was examined and given steroid nose drops. In October I was re-examined. The polyps were smaller and I was given further drops. By that time my sense of smell had been destroyed.

At my appointment in January this year I asked whether I could have the polyps removed surgically. I was asked about symptoms: pain, headache, and nose bleeds. I had no symptoms, but the polyps were not gone. The doctor then told me that if I were a private patient I could have them removed immediately but “not on the NHS.” I then said: “Do you mean that I shall have polyps for the rest of my life?” He told me it was highly likely. My next appointment is in July.

I suppose the point of all this is: if there is so much muddle at the sharp end of the NHS where doctors and patients meet, how can ethics be brought to bear on the system as a whole without a fundamental reassessment of the basic principles on which the NHS was founded and which have been so distorted by the market principles of discredited politics? This is the most urgent moral issue.

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1 Culyer AJ. Maximising the health of the whole community: the case for. *BMJ* 1997;314:667-9. (1 March.)

2 Harris J. Maximising the health of the whole community: the case against. *BMJ* 1997;314:669-72. (1 March.)

### Utilitarianism and justice lie at the heart of the rationing debate

EDITOR—Alan Williams argues eloquently for both utilitarianism and justice in the rationing debate, whereas the conflict between the two lies at the heart of the debate.<sup>1</sup> As a utilitarian Williams states that if the first objective of the health service is to maximise the benefits of health care more should be given to those with a greater capacity to benefit. But as a just man he adds that if a second objective is to minimise the differences in lifetime experience of health, more should be given to those with a low probability of ever achieving a fair innings. Which is it to be, professor?

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1 Williams A. Rationing health care by age: the case for. *BMJ* 1997;14:820-2. (15 March.)

### Advice to authors

We receive more letters than we can publish: we can currently accept only about one third. We prefer short letters that relate to articles published within the past four weeks. We also publish some “out of the blue” letters, which usually relate to matters of public policy.

When deciding which letters to publish we favour originality, assertions supported by data or by citation, and a clear prose style. Letters should have fewer than 400 words (please give a word count) and no more than five references (including one to the *BMJ* article to which they relate); references should be in the Vancouver style. We welcome pictures.

Letters should be typed and signed by each author, and each author’s current appointment and address should be stated. We encourage you to declare any conflict of interest. Please enclose a stamped addressed envelope if you would like to know whether your letter has been accepted or rejected.

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Letters will be edited and may be shortened.

### Access to treatment should be equal, regardless of age

EDITOR—Alan Williams's approach to healthcare rationing on the basis of a fair innings is discriminatory and of questionable morality.<sup>1</sup> It attempts to present a prejudice against older people in a rational and quasi-scientific way, on the basis of the idea of a reasonable number of years lived. It is dangerous to place differential values on the lives of subgroups of the population on the basis of their demographic characteristics. Just because members of the public also seem to subscribe to this view<sup>2</sup> does not justify it, and is evidence instead of a widespread ageism in society. Published work clearly indicates that generalised bias against the healthcare costs of elderly people in the allocation of scarce resources is misplaced as the elderly people are highly diverse physiologically, psychologically, and socially.<sup>3,4</sup> The fair innings argument does not adequately take this into account.

However, rationing of health care by age already occurs. In the case of cardiovascular disease, for example, there is evidence of arbitrary upper age limits existing in some cardiac rehabilitation services and of other age barriers to specific treatments. Older patients and women without contraindications have been reported to be less likely to receive thrombolytic treatment (these two characteristics were independent of each other).<sup>5</sup> Cardiovascular diseases are the most common cause of death in all age groups, and they are an important cause of disability among elderly people, which also has cost implications. Given the aging of the population—at least nine million people in Britain will be aged 65 and over by 2020—there is a need to ensure that appropriate intervention occurs once disease is evident.

Equal access to treatments from which older, as well as younger, people can benefit must be ensured. This is pertinent given that many physiological functions decline much more slowly with age than was previously estimated. Thus, the emphasis in the rationing debate should be on the provision of appropriate and effective treatments from which people benefit, not on unacceptable prejudices against certain sections of the population.

Finally, apart from the difficulties of justifying a single age cut off point for refusal of treatment, the fair innings argument will be complicated by genetic testing for an increasing number of conditions, insofar as this may lead to early estimations of life expectancy (and premature death) and a new series of ethical and economic debates about health service priorities.

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1 Williams A. (1997) Rationing health care by age. The case for. *BMJ* 1997;314:820-2. (15 March.)

2 Bowling A. Health care rationing: the public's debate. *BMJ* 1986;312:670-4.

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5 European Secondary Prevention Group. Translation of clinical trials into practice: a European population-based study of the use of thrombolysis for acute myocardial infarction. *Lancet* 1996;347:1203-7.

2 Heaton KW, Ghosh S, Braddon FE. How bad are the symptoms and bowel dysfunction of patients with the irritable bowel syndrome? A prospective controlled study with emphasis on stool form. *Gut* 1991;32:73-9.

3 Thompson WG, Heaton KW. Functional bowel disorders in apparently healthy people. *Gastroenterology* 1980;79:283-8.

4 Jones R, Lydeard S. Irritable bowel syndrome in the general population. *BMJ* 1992;304:87-90.

5 Talley NJ, Weaver AL, Zinsmeister AR, Melton LJ. Onset and disappearance of gastrointestinal symptoms and functional gastrointestinal disorders. *Am J Epidemiol* 1992;136:165-77.

### Prevalence of gastrointestinal symptoms after bacterial gastroenteritis

#### Bowel symptoms vary over time

EDITOR—Keith R Neal and colleagues found that six months after having bacterial gastroenteritis 90 of 386 respondents to a questionnaire had persistent bowel symptoms and 43 fulfilled criteria for the irritable bowel syndrome.<sup>1</sup> Of these 43 patients, 23 were deemed to have developed the syndrome since the infection. Most gastroenterologists would agree that altered bowel habit often persists after an infective gastroenteritis. The authors' conclusion that the bacterial gastroenteritis led to this magnitude of persisting bowel dysfunction assumes that accurate data were available about bowel habits before the acute illness. Unfortunately, the retrospective questionnaire study relies on recall of bowel habit six months before the gastroenteritis—that is, one year earlier. This baseline measurement of past bowel habit is likely to be unreliable. Others have shown that abdominal pain and symptoms of the irritable bowel syndrome are often experienced by apparently healthy people and ignored. Such symptoms come to light only when current bowel habit is studied.<sup>2</sup> Thus bowel symptoms before the gastroenteritis may have been underreported by some of the patients. This may explain why only 20 (5%) of the patients had pre-existing irritable bowel syndrome, whereas the reported prevalence in Britain is 14-22%.<sup>3,4</sup> Answers to questions about current bowel habit at six months are likely to have been more reliable and gave a more comparable prevalence of the irritable bowel syndrome of 11%.

Repeated measures of the prevalence of symptoms within the same population over time may be confounded by spontaneous turnover of symptoms. In one study 9% of initially asymptomatic subjects developed the irritable bowel syndrome over 12-20 months while a corresponding proportion with the syndrome lost their symptoms.<sup>5</sup> Although Neal and colleagues do not specifically address spontaneous onset and disappearance of symptoms, it is interesting that three subjects with pre-existing irritable bowel syndrome found that it had improved after the gastroenteritis.

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### Patients with the irritable bowel syndrome may underreport historical symptoms

EDITOR—Keith R Neal and colleagues studied post-infective functional bowel symptoms.<sup>1</sup> There is now good evidence that severe gastroenteritis requiring admission to hospital carries a significant risk for the development of the irritable bowel syndrome.<sup>2</sup> Neal and colleagues suggest that this observation should be extended and applies to all cases of gastroenteritis proved by stool culture, and they quote an incidence of new irritable bowel syndrome of 1 in 14 cases. Using a retrospective questionnaire, the authors found that 20 of the 386 responders had premorbid irritable bowel syndrome by the Rome criteria—a prevalence of 5.2%. Three patients improved and 23 developed new irritable bowel syndrome after having gastroenteritis. This represents a final prevalence of 40/386—10.4%. Jones *et al* identified the irritable bowel syndrome in 22% of normal community subjects from general practitioners' lists using the Manning criteria,<sup>3</sup> while Heaton *et al* identified the syndrome in 13% of normal women and 5% of normal men by the Rome criteria.<sup>4</sup> The prevalence of the syndrome in Neal and colleagues' patients six months after gastroenteritis thus seems to be the same as that in normal community controls, and the authors' conclusions about incidence seem to be based on a very low premorbid prevalence. This low premorbid prevalence may be due to recall bias; there are no other studies of prevalence six months before a questionnaire with which to compare Neal and colleagues' findings. Symptoms tend to fluctuate, and most people with the irritable bowel syndrome regard them as a normal part of everyday life. Thus sufferers may report current symptoms if questioned but underreport historical ones, which are not currently affecting them. It may be that this paper is examining risk factors for the irritable bowel syndrome in the general population and that gastroenteritis is unrelated. Further prospective studies along the lines of McKendrick and Read's work are required to answer this question.

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- 4 Heaton KW, O'Donnell LJ, Braddon FE, Mountford RA, Hughes AO, Cripps PJ. Symptoms of irritable bowel syndrome in a British urban community: consultants and nonconsulters. *Gastroenterology* 1992;102:1962-7.

### Psychological factors were not assessed

EDITOR—Despite giving three references to studies that commented on the relevance of mental state to bowel function, Keith R Neal and colleagues did not assess psychological factors in their study.<sup>1</sup> Gomez and Dally concluded that in 85% of patients attending a hospital outpatient clinic because of recurrent abdominal pain “psychiatric factors were considered primarily responsible for their abdominal pain.”<sup>2</sup> Spiller summarised other research by saying “consulters [for irritable bowel symptoms] differ from non-consulters in being easily reassured and more anxious, depressive, and prone to multiple complaints.”<sup>3</sup> Farthing, in the summary points to his article, states, “40-60% of patients with irritable bowel syndrome who seek medical advice have psychological symptoms of depression or anxiety, or both.”<sup>4</sup> Guthrie *et al* showed that half of their study group with refractory irritable bowel syndrome had psychiatric illness as diagnosed by the present state examination.<sup>5</sup>

Neal and colleagues achieved a high (72%) response rate to their questionnaire. If as they state, however, only 5% of diarrhoeal episodes are investigated by stool culture, I suggest that an unknown proportion of their study group—possibly the majority—had important psychiatric illnesses, the symptoms of which negate the conclusions that the authors make.

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- 1 Neal KR, Hebdon J, Spiller R. Prevalence of gastrointestinal symptoms six months after bacterial gastroenteritis and risk factors for development of the irritable bowel syndrome: postal survey of patients. *BMJ* 1997;314:779-82. (15 March.)
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- 3 Spiller RC. Irritable bowel or irritable mind? *BMJ* 1994;309:1646-8.
- 4 Farthing JG. Irritable bowel, irritable body, or irritable brain? *BMJ* 1995;310:171-5.
- 5 Guthrie E, Creed F, Dawson D, Tomenson B. A randomised controlled trial of psychotherapy in patients with refractory irritable bowel syndrome. *Br J Psychiatry* 1993;163:315-21.

### Study did not include a control group

EDITOR—Keith R Neal and colleagues suggest that “a few” (7%) patients surveyed by postal questionnaire after a microbiologically confirmed episode of gastroenteritis developed the irritable bowel syndrome for the first time as a result of this episode.<sup>1</sup> Their conclusion is based entirely on retrospective self reporting of bowel habit over the preceding 12 months. Such reports are unreliable and underestimate the frequency of abdominal symptoms significantly when compared with the use of daily symptom diaries.<sup>2</sup> The situation in this study is confounded by the lack of a control group

and by the occurrence of an episode of gastroenteritis six months earlier. Such an episode is likely to have influenced the reporting of bowel symptoms subsequently (some subjects, for example, may have inappropriately attributed symptoms to the episode of gastroenteritis when they had, in fact, been present but ignored or forgotten previously). Given these methodological shortcomings, it is inappropriate to draw any firm conclusions about the relation of post-infective bowel disturbance to the causation of irritable bowel syndrome from this study.

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- 2 Heaton KW, Ghosh S, Braddon FE. How bad are the symptoms and bowel dysfunction of patients with irritable bowel syndrome? A prospective, controlled study with special reference to stool form. *Gut* 1991;32:73-9.

### Authors' reply

EDITOR—All of these authors focus on the development of the irritable bowel syndrome. Our main finding was that a quarter of patients had a persistent disturbance of bowel habit after bacterial gastroenteritis, most reporting increased frequency and urgency of defecation. David Gorard points out that bowel symptoms vary with time. In the report by Talley *et al* that he cites, 9% of patients acquired symptoms over 16 months<sup>1</sup>—much less than the 25% we observed in six months. Nearly all our patients reported looser bowels, and random change would be in each direction. It is also difficult to explain the increased risk of persistent bowel disturbance with severity if the infection was not a contributing factor.

P Maxwell and M Mendall and Gorard suggest that our low initial prevalence of 7% reflects appreciable underreporting of symptoms since it is lower than figures often quoted. The prevalence of the irritable bowel syndrome depends very much on the criteria used. We used the Rome criteria but additionally required that patients had symptoms on two or more days a week. According to the Manning criteria,<sup>2</sup> the prevalence of the irritable bowel syndrome was 24% after the episode and 17% before. Our lower prevalences are a reflection of stricter criteria and not recall bias.

We agree with D M Hambridge that mental state is important. The suggestion that most of our study population had important psychiatric illness, however, is unlikely. Many patients may have submitted a specimen because of their occupation (healthcare workers, other carers, or catering workers) rather than their mental state. Secondly, a major factor determining whether a stool sample is submitted is the general practitioner rather than the patient or symptoms. In Nottingham 35% of requests come from 10% of general practitioners. Thirdly,

few of our patients with persistent symptoms had seen their general practitioner; thus most were “non-consulters” and seemed stoical about their symptoms, which is not a feature usually associated with major psychiatric disease.

R Barber and A Blakey comment on the lack of a control group. Our study used internal controls, comparing those with persistent altered bowel habit (and new irritable bowel syndrome) with those without. Our results show factors associated with these outcomes. Recall bias is a potential problem. A prospective study would reduce recall bias, but bias may still exist unless people are identified before infection occurs. We are currently addressing other weaknesses of a retrospective study and carrying out a prospective study.

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- 2 Manning AP, Thompson WG, Heaton KW, Morris AF. Towards positive diagnosis of the irritable bowel syndrome. *BMJ* 1978;ii:653-4.

### Dual publication of surgical abstracts is acceptable

EDITOR—I C Cameron and colleagues raise two important issues: whether surgeons wish to see duplicate presentations of research at national meetings and whether dual publication of abstracts should be prevented.<sup>1</sup> The *British Journal of Surgery* has published abstracts for the Association of Surgeons of Great Britain and Ireland, a general surgical meeting, since 1996. The proceedings of the Vascular Surgical Society of Great Britain and Ireland are also published (59 abstracts from the meeting in November 1996). The meeting of the Association of Surgeons held last month, five months after the meeting of the Vascular Surgical Society, contained 40 vascular presentations (30% of the total) and 32 (32%) posters. Nine of the presentations and four posters were repeats from the meeting of the Vascular Surgical Society.

The *British Journal of Surgery* does not believe that duplication of these 13 abstracts constitutes dual publication in the same sense as reproduction of definitive papers. Abstracts are published as a courtesy to national societies, and the editorial board has no control over selection. Individual societies make the rules governing the composition of meetings and papers to be presented. However, a vascular surgeon who attended the meetings of both the Association of Surgeons and the Vascular Surgical Society would no doubt have been dismayed to find almost a quarter of the presentations repeated. Perhaps if these papers had been selected deliberately for a more general audience this might have been justified. Vas-

cular papers, however, constituted 30% of the papers at the meeting of the Association of Surgeons, and the satellite meetings arrangement meant that these meetings were largely attended by vascular surgeons. There seems to be little justification for a second presentation of scientific information unless this is to fill out a curriculum vitae. Two of the repeat presentations at the meeting of the Association of Surgeons had different first authors, and seven had different titles.

The responsibility for the decision about papers to be presented rests with the scientific committee of the society concerned. Individual surgeons must lobby these scientific committees if they wish more stringent rules to be developed to prevent duplicate presentations. Meanwhile, the *British Journal of Surgery* does not believe that duplicate publication of abstracts is culpable.

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## General practitioners prefer to work in cooperatives for out of hours work

EDITOR—Two papers and an editorial recently reported on the delivery of out of hours care by doctors in cooperatives.<sup>1-3</sup> One of the reasons for the development of cooperatives was the lack of satisfaction with out of hours care among general practitioners because of its impact on the doctors' lives.<sup>4</sup> We report data on the impact that cooperatives have had on the lives of general practitioners and their families; we are not aware of any published data on this topic.

A cooperative was set up in Scarborough four years ago, covering 50 000 patients and nine practices. It covers evenings, nights, and weekends and is based in a primary care centre at the local district general hospital. Before its introduction there was no deputising service in the area and all practices did their own on call or shared rotas with neighbouring

practices. We sought the views of participating general practitioners and their spouses, using an anonymous self completed questionnaire. This questionnaire contained paired reversed, randomly arranged questions covering various aspects of the doctors' work and home life.

We received 21 replies from the 26 doctors actively working in the cooperative and 19 replies from their spouses. The table summarises the results. These showed remarkably high levels of satisfaction with the cooperative, relating to both the time at work and the overall effect on home life and relationships. There was also a clear preference for the cooperative over previous out of hours arrangements. The findings were consistent between the general practitioners and their spouses.

It may be difficult to generalise these findings from one small, well established cooperative; this work needs repeating in different settings. However, we believe that, in view of the problems of work related stress, ill health, depression, and addiction already identified in general practitioners, the level of satisfaction of general practitioners and their spouses should be considered in assessments of the changes in the delivery of out of hours care. Improvements in general practitioners' satisfaction with out of hours work may also have benefits in terms of increased satisfaction among patients and improved outcomes in other aspects of general practitioners' work. We believe that these issues warrant wider discussion.

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1 Salisbury C. Observational study of a general practice out of hours cooperative: measures of activity. *BMJ* 1997;314:182-6. (18 January.)

2 Jessop L, Beck I, Hollins L, Shipman C, Reynolds M, Dale J. Changing the pattern of out of hours: a survey of general practice cooperatives. *BMJ* 1997;314:199-200. (18 January.)

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### Doctors' and their spouses' satisfaction with out of hours cooperative

	Disagree	Undecided	Agree
<b>Doctors' responses</b>			
My home life is more enjoyable since I joined the coop	0	0	21
I want to return to the old system of on call	21	0	0
I would rather be on call at home all weekend	19	1	1
I like the separation of work from home	1	4	16
Overall my quality of life has improved since I joined the coop	0	1	20
I find shifts with the coop less stressful than on call	3	4	14
<b>Spouses' responses</b>			
Our home life and relationship have got better because of the coop	0	11	8
I want my partner to go back to the old system of on call	19	0	0
I would prefer my partner at home on call rather than on a shift	14	4	1
Overall I think the coop is good for my partner	0	0	19
My partner is more relaxed since joining the coop	0	5	14

## Trial of prescribing strategies in managing sore throat

### Penicillin had no effect in patients negative for group A $\beta$ haemolytic streptococci

EDITOR—P Little and colleagues state that their study and the study by Whitfield and Hughes are the largest primary care trials in patients with sore throat.<sup>1,2</sup> This is not so, and both of these studies can be criticised on methodological grounds.

In 1987 American authors defined the 10 methodological criteria for valid randomised clinical trials in pharyngitis in primary health care: trials should be prospective, randomised, double blind, and placebo controlled; compliance should be checked by urine testing; there should be a sufficient number of subjects; throat swabs should be used; the patients included should be a representative sample; placebo and treatment groups should be comparable; and direct observation should be used.<sup>3</sup> The study by Little and colleagues fulfils only seven of these 10 criteria. Compliance was not investigated, no throat swabs were used, and direct observation was made only at the first consultation. The prevalence of group A  $\beta$  haemolytic streptococci is not stated: the representativeness of the sample is doubtful. Outcomes were documented in 582 subjects. Similarly, in the study of Whitfield and Hughes only seven criteria were fulfilled: compliance was not checked, no throat swabs were used, and the patients were not a representative sample (the prevalence of group A  $\beta$  haemolytic streptococci was only 7.5%, which is much lower than the average population prevalence).<sup>2</sup> The outcome was determined in 375 patients.

As far as we could ascertain, only the study that we published in 1992 fulfils all 10 criteria.<sup>4</sup> We included 670 patients with sore throat. The prevalence of group A  $\beta$  haemolytic streptococci was 27% and the dropout rate was 5%, so we could evaluate the outcome in 637 patients: 173 positive and 464 negative for group A  $\beta$  haemolytic streptococci. Our article focused on the patients who were positive. We concluded that penicillin had a positive effect on the clinical evolution of pharyngitis due to group A  $\beta$  haemolytic streptococci and that it had no effect on the symptoms or clinical signs of patients who were negative for these organisms.

The final conclusion of our and Little and colleagues' studies is, however, similar: sore throat, even a streptococcal pharyngitis,<sup>4,5</sup> is a self limiting disease that seldom needs antibiotics.

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1 Little P, Williamson I, Warner G, Gould C, Gantley M, Kinmonth AL. Open randomised trial of prescribing

- strategies in managing sore throat. *BMJ* 1997;314:722-7. (8 March.)
- 2 Whitfield MJ, Hughes AO. Penicillin in sore throat. *Practitioner* 1981;2:1061-4.
  - 3 Pichichero ME, Disney F, Talpey W, Green J, Francis A, Roghmann K, et al. Adverse and beneficial effects of immediate treatment of group A beta-hemolytic streptococcal pharyngitis. *Pediatr Infect Dis J* 1987;6:635-43.
  - 4 De Meyere M, Mervielde I, Verschraegen G, Bogaert M. Effect of penicillin on the clinical course of streptococcal pharyngitis in general practice. *Eur J Clin Pharmacol* 1992;43:581-5.
  - 5 Dagnelie CF, Van Der Graaf Y, De Melker R, Touw-Otten FW. Do patients with sore throat benefit from penicillin? A randomised double blind controlled clinical trial with penicillin V in general practice. *Br J Gen Pract* 1996;46:589-93.

### Failure to show antibiotic effectiveness was due to inclusion of cases of sore throat of viral origin

EDITOR—P Little and colleagues addressed an important dilemma in primary care—namely, the benefit of giving antibiotics to patients with sore throat.<sup>1</sup> Their negative findings, however, are probably a result of their study's design. The authors included people with an inflamed (red) throat, and three quarters were aged over 12. No throat cultures were obtained. Colleagues and I have completed a study in general practice of 521 subjects aged 3-74 with sore throat in whom a throat culture was obtained. Red throat was observed in 371 patients. The prevalence of group A streptococcal infection was 14% (73/521) overall and 16% (59/371) in those with a red throat. Other studies in general practice have also reported a 10-20% prevalence for group A streptococcal infection.<sup>2 3</sup>

At most, a fifth of the patients in Little and colleagues' study would probably have been found to have group A streptococcal infection on throat culture. Most of them probably had viral infections, for which antibiotics are not appropriate or effective. As a result, the study lacked power to detect important differences in cases in which antibiotics could be effective (cases of group A streptococcal infection). In fact, the only reported benefit was in a subgroup defined by a symptom complex known to be associated with a higher prevalence of group A streptococcal infection. Although the benefit in this subgroup was considered to be small, 38% of the sample waited more than three days before presenting. The natural course of the infection means that most symptoms are resolving at this point,<sup>4</sup> which reduces further the study's power to show differences. Randomised trials show significant relief of symptoms in group A streptococcal infection when treatment is begun early, especially in children.<sup>5</sup> While recurrences may be increased with early treatment, these remain responsive to antibiotic treatment as well.

This study supports the view that indiscriminate prescribing in sore throat is not appropriate. However, the practitioner's dilemma is not whether antibiotics are needed for all sore throats but rather which sore throats are associated with group A streptococcal infection. Doctors already choose selectively which patients should receive antibiotics, albeit imperfectly.<sup>2</sup> Furthermore, while the authors suggest that return visits are more likely when antibiotics

are prescribed, it does not follow that patients will consult more often when doctors follow a selective strategy. Patients may receive antibiotics on one occasion but not the next if their doctor decides selectively about the need for treatment. According to the study's results, a return visit might be more likely in the former instance but less likely in the latter.

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- 1 Little P, Williamson L, Warner G, Gould C, Candy M, Kinmouth AL. Open randomised trial of prescribing strategies in managing sore throat. *BMJ* 1997;314:722-7. (8 March.)
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### Authors' reply

EDITOR—F De Meyere and colleagues and Warren J McIsaac raise the issues of trial size, trial design, inclusion criteria, the use of throat swabs, trial power, and the medicalising effect of clinical targeting. De Meyere *et al's* trial fully reported results in 173 patients, and diary cards were completed by 131 patients<sup>1</sup>; this trial was much smaller than Whitfield and Hughes's trial<sup>2</sup> or ours.

The unusual conditions in efficacy trials mean that patients' and doctors' behaviour and perceptions may not be generalisable to the normal setting, and the trial design must take this into account. We were trying to assess not efficacy but the effectiveness of different prescribing strategies, in particular the balance of medical benefits versus the medicalisation of minor illness in everyday practice. Such outcomes require open trials, which are an essential component of evidence. Open effectiveness trials require methodological criteria appropriate to the outcomes and setting and not the narrowly defined criteria for efficacy trials.

Should only patients whose throat swabs give positive results be included in trials? Results yielded by throat swabs are a poor standard when compared with a rise in antistreptolysin O titres: most of the target population will be missed, and most of those whose swabs give positive results do not need treatment.<sup>3</sup> Furthermore, general practitioners rarely use swabs and do not act on the results.<sup>4</sup> Thus the utility of including in pragmatic trials only patients whose swabs give positive results is questionable.

Can we exclude meaningful effect sizes in targeted clinical subgroups, given the reduced power of these comparisons? The estimated difference in mean duration of illness (antibiotic group *v* no antibiotic group) was 0.14 days for the symptom-sign complex (95% confidence interval -0.98 to 1.25 days) and -0.28 days for higher Breese scores

(-1.08 to 0.51 days). Thus a benefit of more than one day with antibiotics targeted at clinical subgroups is unlikely from our results. If we assume that throat swabs or clinical targeting are used early in the illness, antibiotics would have to make at least 1.5 days difference to offset the disbenefit from the 20% recurrence of symptoms with early antibiotics.

We argue that, in addition to use of antibiotics having a medicalising effect, use of throat swabs or assessment of clinical symptom-sign clusters is likely to medicalise illness further by creating the perception that it is required to determine whether treatment is necessary. In patients who are not very unwell our results support management of sore throats without antibiotic targeting of clinical subgroups.

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- 1 De Meyere M, Mervielde Y, Verschraegen G, Bogaert M. Effect of penicillin on the clinical course of streptococcal pharyngitis in general practice. *Eur J Clin Pharmacol* 1992;43:581-5.
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## Compliance and concordance with treatment

### Coming to an understanding with patients and prepositions

EDITOR—The translation of the phrase from Franz Kafka's short story *A Country Doctor* at the beginning of Marshall Marinker's personal paper should read: "To write prescriptions is easy, but to come to an understanding with people is hard."<sup>1</sup> It is unlikely we will ever come to an understanding of people; coming to an understanding with them, though difficult, is at least feasible and, in any case, entirely in the sense of Marinker's article. It is worth observing that the reflexive German verb *sich verständigen* puts the onus on the pronominal subject—that is, the doctor—to make himself or herself understood in a more subtle way than that conveyed by the gesticulating of the English prepositional construction. Interestingly, the doctor in Kafka's story<sup>2</sup>—first published in 1919 and based on his own favourite uncle Siegfried Löwy—tries very hard indeed to "concord" with his patient's health beliefs. So hard does he try, in fact, that he is stripped naked, thrown into bed with the patient, and then undergoes the final indignity of being hounded out of the village for not coming up to expectations. Kafka, a noted hypochondriac, craftily

omits to tell us what those expectations might have been.

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- 1 Marinker M. Personal paper: writing prescriptions is easy. *BMJ* 1997;314:747-8. (8 March.)
- 2 Kafka F. *Wedding preparations in the country and other stories*. Harmondsworth: Penguin, 1982:119.

### Treating the patient as a decision maker is not always appropriate

EDITOR—Non-compliance with prescribed drug regimens is high (around 50%) and limits the benefits of current medical care.<sup>1</sup> The costs of not taking drug treatment in terms of persistent disease and increased mortality are thought to be enormous but are largely unreported. The Royal Pharmaceutical Society of Great Britain has addressed this important issue in its recent report<sup>2</sup>; but is changing the terminology from compliance (meaning yielding, compliance, submission) to concordance (agreement, harmony) sufficient to change behaviour as suggested by Patricia Dolan Mullen?<sup>3</sup>

Discussing the pros and cons of drug treatment with the patient before prescribing it is good medical practice. There are, however, at least three situations when treating the patient as a decision maker—the backbone of the concordance model—will fail.

Firstly, if compliance is incomplete during clinical trials of new drugs conclusions about effectiveness and dose may be inaccurate because such trials require almost complete compliance and adherence to strict protocols. Incomplete compliance may thus lead to abandoning a useful treatment or to toxicity in patients who adhere to the prescribed dose.

Secondly, compliance and non-compliance are patterns of behaviour resulting from a complex interaction of many different factors. For example, there is a high degree of association between non-compliance and depression. Attempts to change behaviour with cognitive analytic psychotherapy are encouraging and suggest improvement in both compliance and clinical parameters in patients with asthma.<sup>4</sup> Thus, research into the human behaviour of medicine taking is related to compliance and does not fit the concordance model.

Thirdly, in the case of an infectious and potentially lethal disease such as tuberculosis, can we as doctors ethically allow a patient the freedom of deciding which if any of the antibiotics he or she will take and how much? Patients with open pulmonary tuberculosis who decide not to take drug treatment will remain infectious and a hazard to others. Furthermore, patients who are selective about the antibiotics or erratic in taking the treatment risk developing multidrug resistant disease, a condition that is difficult and costly to treat and usually fatal to immunocompromised people. Doctors already impose their will on these patients

by prescribing combined preparations and rigorously supervised regimens, with treatment being directly observed when poor compliance is suspected.<sup>5</sup>

The change in approach from compliance to concordance may have implications beyond the treatment of an individual patient.

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- 1 Sackett DL, Snow JC. The magnitude of compliance and non compliance. In Haynes RB, Taylor WD, Sackett DL, eds. *Compliance in health care*. Baltimore: Johns Hopkins University Press, 1979:11-22.
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### Donations of orthopaedic equipment also cause problems

EDITOR—I agree with H V Hogerzeil and colleagues about the problems that may be caused by drug donations.<sup>1</sup> Sadly, such problems also extend to donations of orthopaedic equipment and appliances. Most orthopaedic departments in the developing world rely on donated orthopaedic implants and equipment. This, however, entails considerable transport costs because of the weight involved. An assessment of donated equipment and supplies to several providers of orthopaedic care in Zambia showed similar problems to those encountered with drug donations, such as relevance, usability, and expiration. Even worse, many implants of failed designs are made available and yet they are irrelevant to the level of care provided. Import taxes and storage overheads may wipe out a relatively small drugs budget for even a large hospital. It is difficult to list requirements for any particular hospital as these depend on local skill and conditions, and in my experience it has proved most beneficial to have donations channelled through a single collection point in Britain, to which requests for donations can be made by needy recipients.

The core principles of donation of orthopaedic implants should be that there is maximum benefit to the recipient, respect for the needs of the recipient, and the ability to communicate needs between the recipient and the donor. Double standards in donations must be avoided, and prosthetic designs that have failed should not be considered as possible items for donation.

This hospital has been fortunate in its procurement, especially through its links with Equipment for Charitable Hospitals Overseas and World Orthopaedic Concern. Despite this we still have to dispose of a con-

tainer full of well meant donations, which have no possible application in our present environment.

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- 1 Hogerzeil HV, Couper MR, Gray R. Guidelines for drug donations. *BMJ* 1997;314:737-40. (8 March.)

### Overcoming racism in the NHS

#### Those who wish to discriminate should change, not the candidates

EDITOR—The basics of good practice in equal opportunities proposed by Aneez Esmail and Douglas Carnall let those who wish to discriminate off the hook.<sup>1</sup>

Administrative changes designed to make it harder for those who are prejudiced to discriminate unlawfully treat the symptoms of racism, not the disease. The emphasis must be on training everyone concerned with recruitment and selection to ensure that they understand what is required of them and why. There must be an emphasis on clear, objective, evidence based selection criteria so that they know what they are looking for in candidates,<sup>2</sup> and outcomes should be monitored to identify where discrimination may be taking place. If those who discriminate are not willing to change, it is they who must be cut out of the process not information on a candidate's age, sex or name.

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- 1 Esmail A, Carnall D. Tackling racism in the NHS. *BMJ* 1997;314:618-9. (1 March.)
- 2 Richards P, McManus C. Medical schools and racial discrimination. *BMJ* 1995;310:1606.

#### An authoritative central body would help

EDITOR—The editorial by Aneez Esmail and Douglas Carnall on racism in the NHS highlighted the need for activity to combat racism in the medical profession.<sup>1</sup> This call for action is not new but is to be highly commended.

The practical suggestions cited in the article are good examples of next steps. However, until the responsibility to prevent racial discrimination and promote equality of opportunity and outcome is clearly identified with a professional group or committee, such as a ministerial standing advisory committee, little progress will be made. Twenty three per cent of the medical workforce comes from a minority ethnic group, and the ongoing costs to the profession and to society at large must be considerable.

The present situation could be transformed by an authoritative central body set up to review and promote good practice. This body would give confidence to all members of the profession who wish to see change and would also show to society the

degree of commitment to taking the issue seriously.

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### Positive aspects of multi-ethnic teams should be emphasised

EDITOR—Douglas Carnall raises relevant and challenging issues on racism in the NHS, but his evidence is presented in a negative and restricted way.<sup>1</sup> He could have highlighted the advantages of having an ethnically mixed team whose members could inform other members about patients' culture and attitudes. In ward based, family forum groups we have identified the benefits to patients from ethnic minority groups when they have access to doctors with first hand understanding of their language, culture, fears and beliefs.

Although Esmail and Everington found that names alone were important in job hunting,<sup>2</sup> those selecting candidates for shortlists are more likely to be affected by an applicant's place of graduation, clinical experience, and postgraduate training. Advisory bodies in the United Kingdom could help those compiling shortlists by offering objective advice about the equivalence of training programmes around the world. This is achievable because of the increase in international associations within specialties. Those who chair appointment advisory committees must undertake training in equal opportunities awareness and selection procedures. They must be alert to any potentially discriminatory questions and intervene appropriately. All members of selection committees should be aware of these rules.

During an interview an attempt is made to assess the candidate's communication skills, which are vital in modern British medical practice. Information on British medical practice, the expectations of patients in the NHS, and communication skills as practised in the United Kingdom might be more helpful to overseas doctors than advice about antidiscrimination legislation.

Suspected discrimination should be questioned, but instead of suggesting that unsuccessful interview candidates challenge a human resources department, candidates might better take up any offer of post-interview counselling. It is tragic if candidates attribute failure to be selected to their ethnic origin, of which they can be proud and which is unalterable. The decision against them may well, when qualifications and experience are equal, have been due to lack of preparation or lack of a specific skill that is job related and remediable.

Pritpal S Tamber's guidance on dealing with racism on a personal level speaks to all potentially spineless friends—thank you for helping us all to “see ourselves as others see us.”<sup>3</sup>

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- 1 Carnall D. Circumventing racism in the NHS. *BMJ* 1997;314 (classified suppl 1 March):2-3.
- 2 Esmail A, Everington S. Racial discrimination against doctors from ethnic minorities. *BMJ* 1993;306:691-2.
- 3 Tamber PS. Some guidance on taking it personally. *BMJ* 1997;314 (classified suppl 1 March):3.

### Treatment for haemophilia by calendar in Hungary

EDITOR—Christopher A Ludlam suggests that in many places in the United Kingdom the strategy for treating patients with haemophilia is not determined by experts.<sup>1</sup> As a result, treatment is determined by postcode. Unfortunately, the United Kingdom does not seem to be the only country to be doing this.

In Hungary since 1992 there has been a national programme for treating patients with congenital bleeding disorders. All patients and their data are registered in a computerised system at the national haemophilia centre. Regional centres treat the patients using the same principles and under the supervision of the national centre. Treatment with cryoprecipitated factor VIII was changed to virus inactivated plasma derived factor concentrates purchased mainly from abroad. As Hungary is not a rich country, the health system could not afford to buy recombinant factor VIII preparations, but with the centralised registration system each haemophilic patient could be treated with the same factor concentrate, even if he moved from one district to another, which decreased the risk of allergic reactions. Not one vial of concentrate had to be thrown away because it was past its expiry date because hospitals with more vials than they could use before a particular expiry date transferred them to another hospital that could use them before expiry. With these measures haemophilia could be treated on demand with 15 million units of factor VIII a year (1.5 U per person) in Hungary, a country with a population of 10.3 million.

Unfortunately, in 1996 new policy makers (mainly economists and jurists) considered that too much money had been spent on treating haemophilia and surmised that finances had been misused. After a formal hearing and advice from other countries an expert committee consisting of economists, jurists, and pharmacists—but not one doctor who had treated patients with haemophilia—decided what factor concentrates and how much should be purchased. As a result, Hungarian patients with haemophilia are now treated by calendar: we as doctors administer the factor VIII concentrates that are available. In some cases we have had to change concentrates more than four times in the past year. Moreover, making the situation even worse, the policy makers have refused to support financially the prenatal and carrier screening programme, which could have prevented the

continuous growth in the number of people with haemophilia.

My final conclusion is that treatment for haemophilia by postcode or calendar has a common denominator: the lack of goodwill of policy makers to listen to those who treat haemophilic patients.

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1 Ludlam CA, Hay CRM, Dolan G. Treatment for haemophilia by postcode. *BMJ* 1997;314:749. (8 March.)

### Quoting intermediate analyses can only mislead

EDITOR—Marion E T McMurdo and colleagues report a trial of exercise in relation to bone density and falls.<sup>1</sup> They state that “The difference between the groups in the number of women falling during the whole two year period was not significant ( $P=0.158$ ), but between 12 months and 18 months into the study the difference was significant ( $P=0.011$ ).” If in a clinical trial we carry out repeated significance tests as data are accumulated, and if the null hypothesis is true, then the probability of a spurious significant difference is increased. This is why we avoid intermediate analyses except in specially designed sequential trials, or if they are done by separate data monitoring committees which keep their finding from the investigators. I sympathise with the authors, who saw their “significant” difference melt away as more data were collected, but quoting intermediate analyses to give more weight to non-significant findings can only mislead. If the authors were disappointed with their non-significant difference why did they not give a confidence interval instead?<sup>2</sup> The difference in the proportions of women who had falls (exercise group minus control group) was  $-14$  percentage points (95% confidence interval  $-34$  to  $5$ ), and the ratio of these proportions (exercise group over control group) was  $0.68$  ( $0.38$  to  $1.18$ ). Either way, the data suggest that, while at worst exercise could be associated with a small increase in falls, at best it could be associated with a substantial decrease.

The report would also benefit from a confidence interval for the difference between the groups in table 1,<sup>1</sup> which shows mean percentage change in bone density. Here separate confidence intervals are presented for the control and exercise groups, with a  $P$  value from a two sample  $t$  test. How much better it would have been to present the confidence interval for the difference between the means for the two treatment groups. It is this difference in which we are interested in a clinical trial, not the mean for each group separately.

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- 1 McMurdo MET, Mole PA, Paterson CR. Controlled trial of weight bearing exercise in older women in relation to bone density and falls. *BMJ* 1997;314:569. (22 February.)
- 2 Gardner MJ, Altman DG. Confidence intervals rather than P values: estimation rather than hypothesis testing. *BMJ* 1986;292:746-50.

## All doctors are problem doctors

### Doctors must admit that they are human

EDITOR—It is good to see that Richard Smith is moving the debate on beyond the valuable programmes for sick doctors to the idea of doctors taking care of themselves and their immediate colleagues.<sup>1</sup> Ten years ago I published a book on this subject and so have had time to observe the reactions of doctors to the idea that the roots of our malfunctioning are best assumed to lie within ourselves.<sup>2</sup> The simple yet crucial requirement is for doctors to accept that they are vulnerable human beings—as vulnerable, if not more so, than the people they are employed to help.

There is a deep rooted resistance to this notion in the collective medical psyche. Thus too many doctors cut themselves off from their feeling and compassion, wherein lies so much of their ability to help others. This position may have come about as a result of defences erected during the often brutalising experience of being a medical student and the heavy process of socialisation to which the students are exposed or from the example of their emotionally inhibited teachers; and there are other doctors with defences and personality traits that attracted them into medicine in the first place.

But I have detected a change in this culture over the past decade; more doctors are taking that small yet vital first step of admitting to human frailty, sufficient at least to allow them to have a frank chat with a colleague or a friend. Many still need to be given permission to show anxiety, frustration, and helplessness in relation to their work, and they almost have to be taught that these emotions are compatible with being a good doctor.

Too often it takes a crisis of some kind to bring about this realisation, but it should not have to. If doctors as a group can accept emotional vulnerability as a healthy part of the human condition they will feel the burden of denial falling from their shoulders, their families will be happier, and their patients will feel comfortable and open with a doctor who behaves as an ordinary person, like themselves.

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- 1 Smith R. All doctors are problem doctors. *BMJ* 1997;314:841-2. (22 March.)
- 2 Bennet G. *The wound and the doctor: healing, technology and power in modern medicine*. London: Secker and Warburg, 1987.

### Network of "medical buddies" is needed

EDITOR—Richard Smith asks for a change in medical culture to one with "healthier working patterns, with shorter hours, better appraisal and guidance, and more flexibility."<sup>1</sup> Is this just a fantastic dream? Certainly it would seem so at present. For many

consultants, their working lives seem to grow increasingly busy (in spite of the expansion in numbers of consultants that has occurred in the past few years). Appraisal and guidance are offered only to junior doctors in training, and sadly there is no mechanism that avails consultants of such supportive activities.

Trainees on rotations or working in the same hospital department confer regularly with their peers. They know who has problems and who is best to turn to for tutoring or advice. Their culture is mutually supportive; indeed, through the friendships made during training many of us continue to find mutual support after our promotion to a consultant post. Through the processes of "training the trainers" many consultants have now acquired counselling and appraisal skills to support doctors in training. This has been invaluable and given particular insight into the needs of trainees, allowing consultant supervisors to provide support and encouragement before problems, either academic or personal, set in.

Could not both these mechanisms—peer support and appraisal skills—be formally encouraged and developed, perhaps within specialties and across regions, in a way that would allow for regular, confidential, and continuing appraisal and guidance of all consultants? If we could establish a network of interested and respected colleagues no one would be without a "medical buddy." The working lifetime of a consultant may well be 30 years; this is a long time to be without any support, particularly if things start to go wrong.

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## Court ordered caesarean sections are discouraging women from seeking obstetric care

EDITOR—Since reports of court ordered caesarean sections have begun to appear this association has been receiving inquiries from women who are worried about having any contact with obstetricians. They become anxious if referral for an obstetric opinion is suggested, and they are reluctant to enter hospital for either outpatient or inpatient care. In one case a woman with several risk factors told us that she has decided to conceal her pregnancy rather than run the risk of her rights not being respected.

Unfortunately, the small number of court cases has caused a few obstetricians to act in an increasingly authoritarian manner, and we have received reports that when women, quite reasonably, question any proposed intervention they are told: "If you do not consent we will simply get a court order." Women are asking if they will need to go abroad to escape such potential threats.

We believe that forced interventions will deter women from taking up care, putting

far more women and babies at risk than are likely to be saved by the use of these draconian methods.

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## Conclusions about why doctors change their practice were not supported by the data

EDITOR—Lynne A Allery and colleagues used qualitative research methods to address an important issue—namely, why doctors change their practice—but they drew conclusions that were not supported by their data.<sup>1</sup>

They interviewed 100 doctors using the critical incident technique. They asked them about instances in which they recalled having changed their practices and recorded their reasons for these changes. These methods thus seemed appropriate to explore possible reasons why doctors change their practices. The authors, however, did not inquire about instances in which the doctors could have made a change but did not. Nor did they interview doctors who did not recall any changes in their practice. Their study design thus seemed to be a case series of episodes of change in practice, lacking any control group.

The authors used their data to make causal inferences about the reasons why doctors change their practice: "nearly all changes in doctors' clinical behaviour are due to a combination of factors." These inferences were unjustified. One should not draw conclusions about the causes of an outcome without studying subjects who did not experience it.<sup>2</sup> Without a control group one is not even assured that the apparently causal factors were more common in subjects who experienced the outcome than in a control group who did not, much less that any apparent associations between the factors and the outcome were not due to bias. The implications for medical education that the authors give on the basis of these causal inferences should therefore be regarded as speculative.

There is increasing enthusiasm for qualitative research in medicine and health care.<sup>3</sup> Such enthusiasm does not mean that such methods are magical. There are standards of rigour for qualitative research.<sup>4</sup> Qualitative researchers should not be excused from recognising the limits of their methods and data.

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- 1 Allery LA, Owen PA, Robling MR. Why general practitioners and consultants change their clinical practice: a critical incident study. *BMJ* 1997;314:870-4. (22 March.)
- 2 Levine M, Walter S, Lee H, Haines T, Holbrook A, Moyer V for the Evidence-Based Medicine Working Group. Users' guides to the medical literature. IV. How to use an article about harm. *JAMA* 1994;271:1615-9.
- 3 Berkwitz M, Aronowitz R. Different questions beg different methods. *J Gen Intern Med* 1995;10:409-10.
- 4 Mays N, Pope C. Rigour and qualitative research. *BMJ* 1995;311:109-12.