

enormous increases in asthma drug use since 1973, there have been no published reports of a decrease in morbidity.²

The fact that 29 of the 53 general practitioners who were invited agreed to take part in our study suggests to us that general practitioners in Croydon are highly motivated in the care of asthma and are remarkable in wanting to take such steps to improve their own management. The response rate of patients in our study to the questionnaire never fell below 82% despite having to complete six questionnaires over two and a half years, and the 338 patients who completed the last questionnaire represent 74% of the 454 patients who entered the study. Higher targets are rarely reached.

Our study suggests that the power of small group discussion to change our behaviour in the absence of directly elicited information about patient morbidity should not be overestimated. We are not aware of any small groups which currently use surveys of patient morbidity as a basis for their discussions and we have not seen any controlled trials of the effectiveness of educational interventions with doctors in the care of asthma.

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Sir,

We read the study by Dr White and colleagues (*May Journal*, p.182) with interest. However, the analysis suffers from statistical weaknesses which are all the more important for being quite common.

The results of 54 separate significance tests are reported. There is a one in 20 chance of obtaining a *P* value less than 0.05 and so rejecting the null hypothesis when it is true. Repeated testing seriously increases the risk of such type I errors.¹ While not influencing the conclusions of this study, it is poor practice and should not be copied. If there had been a different pattern of significant tests in-

correct inferences might have been drawn.

Table 5 of the paper gives the results of analysis of variance between the two intervention groups and the control group for every morbidity measure and for each of the six times that the patients were questioned. This form of analysis (univariate) assumes that the results in each period are independent of the next. However, this assumption does not appear to have been tested. The measures of asthma morbidity in one period are likely to be related to those obtained six months earlier. Analysis which ignores the relationship between repeated measures and uses univariate when multivariate analysis² is more appropriate will tend to overlook significant trends and differences and thus miss important results.

As the patients' results are subsumed under their respective general practitioner's score some trends among patients over time may have been missed. Thus, the analysis should explicitly acknowledge that the data are from patients who are 'nested' within general practitioners who are in turn 'nested' in groups (intervention or control).

With the availability of microcomputers and better training, general practitioners should increasingly come to regard themselves as clinician researchers. It will be a shame if the potential blossoming of research activity in general practice is not accompanied by a comparable growth in statistical understanding.

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Comparison of the workload of a trainer and trainee

Sir,

We were interested to read the paper by Pearson and Goss (*August Journal*, p.320). We carried out a similar, although smaller, audit halfway through one training year.

The practice is situated in an inner city area and at least 6% of the patients are of Asian or Arabic origin. The practice is atypical since 40% of the population

registered are aged between 15 and 24 years. The principals are all lecturers in general practice fulfilling research and teaching as well as clinical commitments. The trainee was the only woman in the practice at the time of the audit. The practice list size is approximately 7500 and lists are shared.

Consultations carried out by the trainer (C.R.W.) and trainee (C.C.) in January/February 1989 were audited. Each consultation was coded according to type — newly registered patient (first consultation in the practice), new problem, review of new problem, chronic disease or chronic problem — and a summary of the main problem dealt with was recorded.

Over seven weeks the trainee saw 526 patients and in six weeks the trainer saw 330 patients — 58% of the trainer's consultations were with female patients compared with 80% of the trainee's. This confirmed the trainee's suspicions of her workload but contrasts with the results of Pearson and Goss.

Twenty per cent of the trainee's consultations were with newly registered patients compared with 4% of the trainer's. This reflects the high turnover of patients within the practice and indicates that the trainer's surgeries were usually well booked in advance so that any gaps which existed were in the trainee's surgeries and were filled with 'extras', often new patients.

Eighteen per cent of the trainee's consultations were for review of recently presented problems, compared with less than 3% of the trainer's. No record was made of whether these were doctor or patient initiated consultations but if they were the former they indicate the trainee's greater uncertainty and need to monitor the natural history of self-limiting disease.

Consultations for chronic problems comprised approximately 40% of trainee and 45% of trainer workload. Analysis of the type of problem seen revealed that nearly 10% of both the trainer's and trainee's consultations were for chronic psychosocial, drug or alcohol problems. This contrasts with Pearson and Goss's study where 6.4% of the trainees consultations and 11.3% of the trainer's were with patients with mental and social problems. The percentages of consultations for other chronic problems, such as diabetes and asthma, were similar to those of Pearson and Goss for the trainer but were lower for the trainee, supporting other studies which draw attention to this deficit in training.¹

The percentages of consultations that were for gynaecological problems were much higher in our study than in that of Pearson and Goss. Thus 18% of the

trainer's consultations were primarily for gynaecological disorders and a surprising 29% of the trainee's. This high rate can be partly explained by the atypical practice age distribution and the even higher rate for the female trainee presumably reflects some women's preference for a woman doctor.²

Thus, as Pearson and Goss state, the trainee can expect to see a different workload from that of the trainer and it seems that it is dependent upon the type of training practice. This finding has important implications for education and training.

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Continuing medical education

Sir,

The Department of Health's new contract for general practitioners¹ will introduce a new postgraduate education allowance of around £1700 per annum which will replace the vocational and postgraduate training allowances. Wall and Houghton's editorial (*August Journal*, p.311) criticizes the effects of the new contract on continuing medical education but this criticism may be premature.

The vocational training allowance was paid regardless of whether the doctor ever picked up another journal or attended another lecture. The postgraduate training allowance went some way towards encouraging doctors to continue in their medical education but did not go far enough. The criteria for the postgraduate training allowance could be met by a one week course and the allowance could only be claimed once in five years and a maximum of twice before the doctor became eligible for the first seniority payment.

The new postgraduate education allowance may provide an incentive to all doctors, not only those who have some connection with vocational training. The criteria for the allowance do seem rather cumbersome and rigid but I am sure that those who make a genuine effort to continue their medical education will be rewarded and those who do not will not.

A regional advisor who investigates and recommends more educationally worthwhile activities will be rewarded by a greater number and broader spectrum of doctors attending meetings.

While the new contract has not addressed vocational training I think that it will encourage more continuing education for everyone and will on balance be good for the profession.

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Patient satisfaction

Sir,

In their review of the measurement of patient satisfaction, Keeble and Keeble (*July Journal*, p.269) are right to draw attention to the difficulties involved. However, there are flaws in their argument that 'a more appropriate way of increasing consumer participation in the NHS might be to allow the public greater representation on family practitioner committees, district and regional health authorities and the boards of self governing hospitals'. How can such representatives of the public know the views of other patients without asking them? Should they rely on anecdotal reports or on the media, or should they use information collected in formal ways that have been tested for validity and reliability? In individual general practices where patient representation is still unusual, how are general practitioners to know if their patients are satisfied without asking them?

There are other good reasons why we should measure patient satisfaction. Patients have a right to expect that their views on all aspects of their care will be listened to and taken into account. This is essential within the consultation if a therapeutic doctor-patient relationship is to be established. It is also necessary in the wider context of health service planning if facilities are to be provided that patients are willing to use. Donabedian describes three reasons for measuring satisfaction: first that satisfaction is one objective of care, secondly that a satisfied patient is more likely to comply with advice, and thirdly, that satisfaction is a judgement by the patient on the care received.¹

The measurement of satisfaction may not be straightforward, but, as Keeble and Keeble point out, these difficulties should not be used as an excuse for ignoring patients' views. Difficult does not mean impossible, and careful investigation may well allow many of the problems to be overcome. After all, the same shortcomings apply to virtually every other measurement in medicine. Perhaps the biggest obstacle to the measurement of patient satisfaction is that we are apprehensive about what our patients might think of us. In recent years, we have come to accept the value of the opinions of colleagues through peer review. I hope in the future we will come to accept the related principle of review by patients through the informed use of satisfaction surveys.

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Sir,

The editorial by Keeble and Keeble on patient satisfaction (*July Journal*, p.269) raises some perplexing questions and offers answers to none of them. The suggestion that consumer participation on family practitioner committees should be increased is undoubtedly one of the government's plans and certainly the medical profession's participation in family practitioner committees seems certain to be reduced. This must be regarded as a retrograde step as it will result in doctors practising defensive medicine, and an even greater gap in the understanding at committee level of what happens in the consultation. The government may consider the current system with a good medical input on various committees to be unsatisfactory but a committee composed of those that are medically ignorant is unlikely to be any better.

Having sent out a postal questionnaire to 77 patients who had been referred to outpatient departments I was pleasantly surprised to find that 90% of them were perfectly satisfied with the length of time they had to wait for an outpatient appointment to see a consultant, and approximately 96% were satisfied with the consultation they received with both the general practitioner and the consultant. However, having considered all the variables in Keeble and Keeble's editorial