Further reanalysis of existing trials is unlikely to yield new insights, which will require new studies. Anderson and Tomenson recommend investigation of antidepressants prescribed in clinical practice rather than in clinical trials. Such observational studies are subject to many potential biases, which reduce the validity of comparisons.³ What is needed are large, well designed pragmatic randomised controlled trials in primary care settings; such trials will allow both reliable and generalisable estimation of the relative effectiveness and cost effectiveness of different classes of antidepressants, as used in routine clinical practice and over a longer period. Future randomised controlled trials comparing classes of antidepressants should also use more relevant outcomes to measure quality of life in those who continue to use treatments and those who drop out.

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Exercise responses in the chronic fatigue syndrome

Objective assessment of study is difficult without knowledge of data

EDITOR,—In their study of exercise responses and psychiatric disorder in the chronic fatigue syndrome Russell J M Lane and colleagues claim to have detected abnormal lactate responses to subanaerobic threshold exercise in 31 of 96 patients.¹ As no data are offered to support this statement, however, objective assessment of the validity of their findings is difficult.

The authors' definition of an abnormal response is "lactate concentrations exceeding the upper 99% reference limit for normal control subjects at two or more time points." However, only three samples were taken (before, immediately after, and 30 minutes after exercise), and a raised lactate concentration in the sample obtained before exercise began cannot be described as an abnormal response to exercise. Neither the method used to measure lactate nor its precision is given; assessment of the importance of the "abnormal" lactate concentrations could not be guessed at without this information, even if the authors had given details of the patients' concentrations.

Finally the "normal" ranges were published six years ago in a study in which patients and controls were not matched.² Lactate responses to exercise are notoriously difficult to interpret in isolation, and since the early studies of Pearson *et al* into McArdle's disease³ it has been standard practice in this type of study to run a parallel test in a control matched for age, sex, and weight⁴; this does not

seem to have been done in Lane and colleagues' study.

I believe that it is impossible to verify the authors' conclusions without seeing their data, and I am surprised that they were not included.

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Authors' reply

EDITOR,—The constraints on the number of words in a short report prevented us from giving the lactate concentrations. In the 31 patients with a positive response to the subanaerobic threshold exercise test, concentrations exceeded the upper 99% confidence interval established in normal control volunteers in the paper by Nashef and Lane,¹ cited by Alan S Hutchison, in 28 subjects before exercise and in 29 subjects immediately after and in 29 subjects 30 minutes after exercise. Before November 1990 the plasma lactate concentration was measured with a Sigma kit, as detailed by Nashef and Lane. Since then the concentration has been measured with a Stat lactate analyser (Yellow Springs Instrument, Ohio). The table shows the precision data between batches for two periods in which these methods were used; the data are based on internal quality control samples run with each batch of assays.

Precision data for two assays measuring lactate concentration, 1989-95

	Dec 89-Oct 90	Aug 94-Feb 95
No	42	42
Mean (SD) (mmol/l)	2.31 (0.12)	2.25 (0.16)
Coefficient of variation (%)	5.1	7.1

To some extent we share Hutchison's reservations regarding the validity of the confidence intervals for lactate concentrations based on historical controls. Nevertheless, the subanaerobic threshold exercise test largely eradicates variations related to age, sex, and weight.² We would have been more concerned if the majority of patients with the chronic fatigue syndrome had shown abnormal results: the upper limit of the confidence interval might have been artificially low. However, results were normal in two thirds of cases.

The point concerning the baseline lactate concentrations is pedantic. A raised resting concentration is abnormal and might indicate defective mitochondrial function, for example.² The issue of lactate responses to exercise in glycogenoses is not really pertinent. Here, one is looking for a partial or complete lack of increase in lactate concentration after ischaemic exercise of a limb. Control of factors such as the intensity and duration of work and procedures for collecting samples must be much more stringent.³

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Volume and mortality in coronary artery bypass grafting

EDITOR,—Amanda J Sowden and colleagues' meta-analysis of six studies of the relation between the volume of coronary bypass graft surgery performed and mortality concludes that the relation is less apparent with better adjustment for case mix and has become attenuated over time.¹ Unfortunately, in the one study with clinical risk factors, which was also the most recent one and was carried out in New York, 96.7% of all patients were treated in the 26 (out of 30) hospitals with >200 cases. This makes it difficult to detect a volume effect in this study. Without additional studies with clinical risk factor models from other times and places it is impossible to test the authors' hypotheses.

We have addressed the question of a time trend, looking at Californian data for 1983-9. Adjusted death rates by volume of coronary artery bypass grafting were estimated with a risk model based on data from discharge abstracts.² (Although better risk models may alter these results, they largely reflect substantial differences in mortality rather than in expected rates; predicted risk falls with volume up to about 250 cases a year and is flat thereafter.) Following the method of Sowden and colleagues, we used logistic regression to estimate odds ratios between volume and adjusted risk of death for each year and to determine whether the relation between volume and outcome changed over time. We found significantly lower death rates adjusted for risk in high volume hospitals for each year except 1983 (1983, odds ratio 0.87 (95% confidence interval 0.73 to 1.04); 1984, 0.83 (0.71 to 0.99); 1985, 0.70 (0.60 to 0.81); 1986, 0.77 (0.67 to 0.88); 1987, 0.82 (0.71 to 0.94); 1988, 0.85 (0.74 to 0.96); 1989, 0.85 (0.74 to 0.97)). The interaction of year and volume was not significant. Furthermore, in California the proportions of both hospitals and patients in high volume hospitals were far lower than those in New York and fell during the period, from 54% to 32% and from 78% to 62% respectively.

The figure shows the relation between volume and the ratio of observed to expected mortality for each hospital year of observation. A locally weighted regression scatterplot smoothing curve fitted to the data shows a relatively weak relation at high volumes but a much stronger effect at low volumes, especially those below 150 cases. These data suggest that concerns about the volume of coronary artery bypass grafting are primarily

Relation between volume of coronary artery bypass grafting and mortality adjusted for risk, California, 1983-9

relevant for the hospitals with very low volumes that are common in places like California but may not exist in other states or countries. Generalisations from meta-analyses that do not take into account the sources of the data may therefore be misleading.

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Medical library innovates on the Internet

EDITOR,—Andrew Millman and colleagues' article about the Internet is a useful introduction for doctors who want to know more.¹ However, the Internet changes quickly, and it is perhaps worth mentioning that there are now several British resources that index web sites for medical practitioners—for example the south and west health care libraries initiative ([url:http://cochrane.epi.bris.ac.uk/rd/links](http://cochrane.epi.bris.ac.uk/rd/links)) and the OMNI (organising medical networked information) project ([url:http://www.nimr.mrc.ac.uk/OMNI](http://www.nimr.mrc.ac.uk/OMNI)), which is looking at providing access to high quality networked information resources.

In the medical library at Salford Royal Hospitals NHS Trust we have set up a series of home pages ([url:http://www.hop.man.ac.uk/lib/lib.html](http://www.hop.man.ac.uk/lib/lib.html)), which are intended to save the time of researchers and hospital doctors. We have provided a guide to sites, listed under specialty, so that users do not have to waste time feeling their way around the net (although they are, of course, at liberty to do so). We have selected some of the most important resources, bearing in mind both the needs and interests of our users and the content and accessibility of the resource. There are usually two or three resources per specialty, with more in areas in which we specialise—for example, orthopaedics. While the home pages are available for those on the university network to access from their desk or for individual users to access from home, they can also be accessed from the computer centre in the library, where the staff provide demonstrations of what is available. It is usually possible for a user with a knowledge of Windows to become familiar with the basics of Netscape within five minutes; they can then use our home page to select resources relevant to their interests.

Our home pages are available on the web for anyone to use, and we hope that they will become a useful gateway for those who do not have time to set up their own web pages. We have also provided a guide for those who do wish to set up their own pages ([url:http://www.hop.man.ac.uk/staff/chukins/setup.htm](http://www.hop.man.ac.uk/staff/chukins/setup.htm)).

Although the future of the Internet is still in many ways uncertain, more useful resources are becoming available. Librarians and information specialists are ideally placed to provide a guide to these for their users and to advise when it is best to consider using the Internet and when to use a traditional quality controlled database such as Medline.

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Nurse triage increases emergency department waiting times

EDITOR,—When considering guidelines for triage by nurses in accident and emergency departments Andrew B Bindman states that "it is less problematic if guidelines systematically recommend care in the accident and emergency department for some patients who could be treated in alternative settings than it is if they routinely recommend alternative care for patients who truly are emergencies."¹ This statement is not the truism it seems to be at first glance.

Our study of triage by nurses in an accident and emergency department showed that the process delayed those patients in most urgent need of attention.² In a formal system of triage the triage nurse must place each patient into a category. It will be relatively easy to categorise some patients as "in need of immediate treatment" and others as "not really in need of treatment at all," but the trouble lies with those who fall in between. When there is some doubt about whether to place a patient into an "accident and emergency" category or a "primary care" category, for instance, the natural tendency is to err on the side of safety and place the patient into the more urgent category. This is what Bindman suggests should happen. Not all patients, however, can go to the front of the queue. Should this happen too often the consequence is, in effect, another queue within the more urgent category. The result is that the waiting time for patients in the more urgent category increases—which is the opposite of the desired effect of shortening the waiting time for these patients at the expense of those with low priority. In fact, our study showed an increase in waiting time for patients in all categories when formal nurse triage was operating.

As health professionals we are trained to be rational. If evidence based medicine is ever to become widespread, however, we must be willing to question even the most obvious examples of common sense.

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Charity appeals for contributions

Money will go to doctors and their families

EDITOR,—The case committee of the Royal Medical Benevolent Fund meets every month to consider cases and to allocate funds to over 900 people, young and old. The proceedings are confidential, but they show the often desperate needs unexpected in members of a great profession and their families.

Christmas may be especially poignant for those suffering from poverty or bereavement. The Christmas appeal provides a gift for everyone and has always been generously supported. Because of readers' generosity last year, we were able to increase the individual gifts to children.

We receive many letters of thanks from those to whom a little can mean so much: a special meal or extra gifts. The needs increase each year, so I hope that this year the records of previous years can be equalled or, better still, exceeded. Contributions marked "Christmas appeal" may be sent to the secretary, Royal Medical Benevolent Fund, 24 King's Road, London SW19 8QN, or to the treasurer or medical representative of readers' local guild of the fund.

JOSEPHINE BARNES
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How the Royal Medical Benevolent Fund can help

EDITOR,—My 15 year old son recently sat eight GCSEs. There is nothing unusual in that: thousands of teenagers did the same thing. But there is something unusual about my son. Obviously bright and certainly not deaf, he did not talk until he was 4, and he received speech therapy until we moved to the Southern hemisphere in the interests of my husband's career as a doctor. Sadly, teachers there labelled him as "not very bright."

When our son was 9 my husband took him to be assessed by an educational psychologist. Apparently, he had an IQ of 156 but was severely dyslexic and would need special education and much emotional support. However, without explanation my husband came home from the assessment, packed his bags, and left. My son and I were abandoned without a home or financial support. I had no job, and the prospects of my earning my own living (I was 48) were minimal. I was in a foreign country and had no family to fall back on.

Three years later I returned to Britain, but things got worse. My husband promised that if I stayed in Britain so that our son could attend a specialised school here, he would pay the school fees, buy a house for us, and ship our furniture over. Because my husband still lives overseas, however, I have been unable to enforce our legal agreement, and he has done none of the things he promised to make it possible for our son to receive the special education he needs.

Consequently, my son and I were stranded in Britain, registered as homeless, with no income and with all our belongings overseas. My son was asked to leave his school because it became obvious that his father had no intention of paying the fees. The lad was 12. He could not read. He was suicidal and tried to jump in front of a car. It all seemed so desperately bleak.

Suddenly two good fairies, in the shape of the Royal Medical Benevolent Fund and the Royal Medical Foundation of Epsom, stepped in to help. They give us such things as holidays, help with buying a car, Christmas and Easter gifts, television licence, etc. The Royal Medical Foundation of Epsom pays my son's school fees. It has made a vast difference to our lives and the losses we have suffered.

It may seem strange that the families of men in the "caring profession" can need the help that I have received. Sadly, this is the case. I cannot imagine what would have happened to my child and me had we not been helped so generously.

I will never be able to thank the nameless people who subscribe to these two funds, and I hope that they will read this letter and realise how grateful I am, and how the future looks a lot less bleak for one young teenager and his mother.

ANONYMOUS