telephone directory, and if you can't telephone or visit a branch then you can write.

I hope that this letter will enable us to reach those junior doctors who feel under stress, lonely, or suicidal. I would like to say to them, please remember that the Samaritans are there for you to talk to and share your feelings. Don't let things get too much. Pick up a phone first.

ANONYMOUS

The Samaritans,
Winchester and District Branch,
Winchester,
Hampshire

1 Aitken H. Someone to turn to. *BMJ* 1991;301:185. (19 January.)

Pulmonary embolism

SIR,—Minerva reports that mortality in Britain from pulmonary embolism is twice as high in women as it is in men.¹ This is confirmed by the published figures for England and Wales for 1988,² with deaths of 485 men and 856 women being assigned to this underlying cause (ICD (ninth revision) 415.1).

Death rates from pulmonary embolism are much higher in older people than in younger people, and differences between men and women change when the risk at different ages is considered.

*Deaths assigned to pulmonary embolism per million population by age and sex: England and Wales, 1988**

	All ages	Age (years)					
		<45	45-54	55-64	65-74	75-84	≥85
Men	20		5	16	67	210	461
Women	33	1	4	12	61	218	497

The table shows that age specific rates in 1988 for men were similar to those for women over the whole range. This apparent contradiction reflects differences in the age structure of the population, which comprises more older women than older men. Different conclusions can thus be drawn about the sex differential in mortality from pulmonary embolism, depending on whether the overall rate for each group or the chances of dying at particular ages are considered.

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1 Anonymous. Views. *BMJ* 1991;302:188. (19 January.)

2 Office of Population Censuses and Surveys. *Mortality statistics: cause 1988*. London: HMSO, 1990. (DH2/15.)

Audit in general practice

SIR,—One of the biggest problems with the introduction of medical audit has been the plethora of definitions and the difference of opinions about what it entails. This problem was highlighted by the study by Dr Sheila J Webb and colleagues.¹ The audit activities they describe seem to be largely confined to exercises in data collection, practice analysis activity, and the development of prescribing or disease management protocols.

Though all these procedures are invaluable in promoting good practice and may be used as a foundation for medical audit it is surely wrong to call them audits as such. In no way do they conform to the model of the audit process as set out by the Royal College of Physicians² and amplified by the Standing Committee on Postgraduate Education³—namely, observe practice, set a standard of practice, compare observed practice with the standard, implement change, and observe practice after changes have been implemented.

The authors seem to appreciate this distinction in terminology when they say that "there was little

evidence of repeated audits that will 'close the feedback loop.'" Furthermore their only reference to the need for standards is to state that "many general practitioners thus already have entry points for starting the process of setting standards."

Proper educational benefit will be achieved and clinical standards improved only if we avoid confusion and maintain rigorous intellectual discipline by adhering to precise definitions. We should not label any studies as medical audit unless they are assessed against the paradigm of the audit cycle, with explicit standards and measured changes and preferably categorised in terms of structure, process, or outcome.

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1 Webb SJ, Dowell AC, Heywood P. Survey of general practice audit in Leeds. *BMJ* 1991;302:390-2. (16 February.)

2 Royal College of Physicians of London. *Medical audit: a first report*. London: RCP, 1989.

3 Standing Committee on Postgraduate Medical Education. *Medical audit: the educational implications*. London: SCOPME, 1989.

Preventing fraud

SIR,—Ms Jane Smith suggested that the Royal College of Physicians is in a powerful position to prevent fraud because its fellows are deans, professors, chairmen of ethics committees, and chairmen of appointment committees.¹ The Royal College of Physicians has another powerful arm in the Faculty of Pharmaceutical Medicine.

It has regrettably been a large part of the workload of pharmaceutical physicians to assess the quality of research and to identify that which is unusable owing to either fraud or other reasons (usually poor record keeping), which are more common. If external audit of research was encouraged in academic units (as is required now for drug company studies) then inadequate research technique would not need to be synonymous with fraud, although the results of the research would need to be withdrawn. I am sure that the pharmaceutical physicians will be pleased to offer their assistance in discussing ways that this could be done.

GWYN THOMAS

BMA Pharmaceutical Physicians Group Committee,
London WC1H 9JR

1 Smith J. Preventing fraud. *BMJ* 1991;302:362-3. (16 February.)

Good surveys guide

SIR,—Professor S J W Evans rightly emphasises the value of high response rates in surveys, although, as he points out, samples with lower response rates can be informative.¹ He describes how bounds can be placed on prevalence estimates by assuming extreme bias in non-responders.

Interpretation may also be helped by examining the reasons for non-response, both when estimating prevalences and when looking at associations between variables. For example, consider a survey in a general practice population to explore the associations between myopia and educational attainment, and suppose that there is an incomplete response because some subjects have changed address without informing the practice and others are persistently not at home when visited. In this case the relation between myopia and education is unlikely to be very different in responders and non-responders. Thus the survey's results might be accepted despite the incomplete response. Of course, this assessment entails subjective judgments, but so does extrapolation from the study population (that is, patients of a few general practitioners) to the wider target population in which the results will be applied.

Professor Evans goes too far when he asserts an

obvious need for response rates greater than 80% when examining relations between two or more variables. A good response makes interpretation easier, but each study must be evaluated on its merits. Otherwise, useful information would be needlessly thrown away.

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1 Evans SJW. Good surveys guide. *BMJ* 1991;302:302-3. (9 February.)

Testing for HIV antibodies

SIR,—Dr Tony Delamothe reports the increase in the number of patients identified with heterosexually acquired HIV infection.¹ It remains uncertain, however, whether this indicates a real change in seroprevalence or is due to increased uptake of HIV antibody testing by previously infected individuals.

In March 1990 we began a study to examine this question in heterosexual patients attending our genitourinary medicine clinic requesting an HIV antibody test. We aimed at repeating the tests at six monthly intervals to determine any change in HIV seroprevalence. Unfortunately the study failed because few heterosexuals were willing to volunteer for repeated testing. In addition, the geographical mobility of many people attending genitourinary medicine clinics made the planned two year follow up impossible.

To examine the reasons for the reluctance to request an HIV test, we investigated 200 consecutive patients (100 men and 100 women), who had declined a test. We used a self administered questionnaire that used a visual analogue scale to determine agreement or disagreement with statements about HIV testing.² The results were collected anonymously for each sex.

Men were particularly worried about confidentiality, whereas women expressed more concern about being unable to cope with a positive result (table). Both sexes were concerned about the effect of having a test, whether the result was positive or negative, on the prospects for life insurance and mortgage applications. More men than women were worried about having to admit things in their past to their partners and, similarly, were certain that they were at no risk of having HIV antibodies. Overall, only 7% of patients agreed with the response that "Heterosexuals don't get HIV."

Our study shows that although people attending genitourinary medicine clinics have a high awareness of the potential for heterosexual transmission

Reasons for declining HIV antibody test

Statement	No who responded "very much on my mind"	
	Men (n=100)	Women (n=100)
I'm worried about the financial implications of having a test (insurance policies, mortgages, etc)	47	32
I think the result may be positive and couldn't cope with it	12	40
I'm worried about my partner's reaction if I said I was having an HIV test	21	24
I don't want to know the result as there is no cure	28	18
I would have to admit things to my partner about my past	20	2
I think that I am at no risk of being HIV seropositive	23	
I'm worried about the confidentiality of the result	64	18
I don't think heterosexuals can get HIV	2	12
I always have safe sex, so why bother		20