the risk of an increase in tuberculosis related to HIV is small.²

An audit of cases of tuberculosis (April 1990-March 1991) in Riverside Health Authority showed two problems with the current surveillance of HIV infection and tuberculosis based on notification data. Firstly, tuberculosis in HIV infected people is less likely to be notified than that in other people. In our study only four (40%) of 10 dual infections were notified; in contrast, 50 (74%) of 68 cases of tuberculosis in people not known to be infected with HIV were notified. Furthermore, HIV positive patients given antituberculous treatment without bacteriological evidence being sought were even less likely to be notified (one (18%) of six).

Secondly, a rise in the number of cases of tuberculosis attributable to HIV infection may be masked by the high rates of, and changing trends in, notifications concerning people from the Indian subcontinent (India, Pakistan, Bangladesh)^{3,4} owing to the similar age ranges of the two groups of patients (mean ages in our study were 41 and 42 years). Ethnic group and country of origin are not recorded on notifications.

Cooperation between the consultant in communicable disease, microbiologists, and clinicians has corrected the problem of differential reporting from Riverside, and we recommend that other health authorities audit their cases of tuberculosis to ensure that the surveillance data are unbiased. Moreover, to measure the extent of dual infection we have begun locally to record ethnic group and country of origin for all cases of tuberculosis and recommend that other centres with a high prevalence of HIV infection do likewise.

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AUTHOR'S REPLY.—E L C Ong is correct in saying that tuberculosis in people with HIV infection is an important public health issue in the United Kingdom as it is one of the few diseases that can be infectious to both HIV positive and HIV negative contacts and has a good outcome if treated appropriately. This was one of the main reasons for the Joint Tuberculosis Committee formulating the guidelines. The other reason was that the committee was increasingly being asked for advice on aspects of the interaction between tuberculosis and HIV infection. As is discussed in the guidelines, definitive advice on certain points was not available. In those cases the subcommittee, which included physicians regularly treating patients with tuberculosis and HIV infection, had to reach a balanced position on the evidence available when the guidelines were compiled late last year.

No detailed epidemiological study has reported whether BCG vaccination before HIV infection reduces the incidence of tuberculosis. Small studies

of nine patients, such as that mentioned by Ong,¹ clearly do not have the power to answer this question. The recommendations for the treatment of tuberculosis in HIV infection follow the treatment guidelines issued previously by the Joint Tuberculosis Committee, which allow the addition of ethambutol if the clinician believes that there is a risk of resistance to isoniazid.² The earlier guidelines emphasised that the advice to continue prophylaxis with isoniazid indefinitely after the completion of standard treatment was based on current available evidence.³ It was also pointed out that studies to determine what chemoprophylaxis should be given, for how long, and under what circumstances are being undertaken by the World Health Organisation.⁴

It is inevitable that some aspects of the guidelines can be criticised as a position had to be taken on certain points to which the answer is not yet known. The subcommittee considered that it was better to make recommendations based on the current evidence available than to avoid such points, which would have led to vague and weak guidelines. When the answers to those points are available revised updated guidelines can then be produced.

Matthew Hickman and colleagues are correct to emphasise the need to notify all cases of tuberculosis in patients with HIV infection. Notification of 74% cases in people suspected to be negative for HIV and of 40% of cases in HIV positive people clearly shows undernotification of tuberculosis generally and dual infection in particular. The Joint Tuberculosis Committee's guidelines clearly state that all cases of tuberculosis should be notified, and each district will have to ensure, as Riverside Health Authority has now done, that this is carried out so that contacts can be traced. Only by scrupulously notifying all cases of tuberculosis in HIV positive people can the impact of the interaction between tuberculosis and HIV infection in the United Kingdom be monitored.

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Ernest Saunders: diagnostic dilemma

EDITOR.—Three expert medical witnesses, called by the counsel to Ernest Saunders during the hearing of his appeal against conviction in April 1991, testified that he was suffering from Alzheimer's disease. From a review of newspaper reports of evidence heard on 24 April 1991 by the Appeal Court, the diagnosis of Alzheimer's disease was based on a degree of frontal atrophy on computed tomography, Mr Saunders's inability to repeat more than three numbers backwards, his mistaken identification of Gerald Ford rather than George Bush as the American president, and an occasion when he had wandered off in the wrong direction after leaving Dr Patrick Galloway's consulting room.^{1,4}

Dr George Perkin, a consultant neurologist called by the crown, told the court that there was no definite correlation between an abnormal brain scan and dementia and that he did not agree that Alzheimer's disease could be diagnosed in Mr Saunders's case without the results of

further psychometric tests and longer assessment. Dr Perkin considered depression, rather than dementia, to be responsible for Mr Saunders's symptoms. The diagnosis of Alzheimer's disease was accepted by the Appeal Court judges and Mr Saunders's sentence reduced.

It now seems that the diagnosis of Alzheimer's disease was certainly incorrect. Dr Galloway had treated Mr Saunders for depression between February and November 1988, and the observed cognitive deficits were probably related to a depression as Dr Perkin suggested at the appeal. Atrophy on computed tomography may be seen in depression in late and middle life² and is in no way diagnostic of Alzheimer's disease.

We are concerned that what may have been recently portrayed in the press as an unprecedented spontaneous recovery from Alzheimer's disease may damage the credibility of members of our profession who give evidence in cases in which those involved have genuine Alzheimer's disease or other dementias. This case and its aftermath draw attention to the difficulties of making a clinical diagnosis of Alzheimer's disease. These are now well recognised, in that research on patients with the disease necessitates the use of internationally agreed diagnostic criteria.³ Though use of such criteria may not always be appropriate in routine or, indeed, forensic clinical assessment, we believe that, when a clinical diagnosis of Alzheimer's disease needs to be made with authority, it should surely be supported by recognised neuropsychological tests.

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Time to abolish "gold standard"

EDITOR.—A few years ago at a clinical discussion on the usefulness or otherwise of the newly described fructosamine assay in the regular management of diabetic patients¹ someone stated that "the gold standard in detecting early complications in diabetics was the measurement of cell membrane thickness in a muscle biopsy sample by electron microscopy." I was taken aback—not by the impracticability of the proposed test but by the phrase "gold standard."

As a practising biochemist for nearly 40 years I had never heard these words used to describe any biological test. Because the subject is in a state of perpetual evolution gold standards are, by definition almost, never reached. Instead, as progress is made conclusions may be drawn with an increasing degree of confidence. Even Jeffreys *et al* in their milestone paper on how the uniqueness of our genetic fingerprint may be shown (odds of up to 10¹⁹ against duplication) never used the term.² How, therefore, can its application to often quite complex clinical procedures be justified? In these matters complexity is the antithesis of certainty.

From the initial incident described above I became alerted to this presumptuous appellation, and in my general reading of the medical literature I have noted a steady increase in its use. This subjective impression has been confirmed by a

Medline search. This showed that during 1982-6 nine papers included the phrase in their titles with a further 59 using it in the abstract. During 1987-91 these figures jumped to 35 and 373 respectively. These figures do not include other papers that use the phrase elsewhere in the text.

A close inspection of these 35 recent publications indicates that the use is subject to considerable criticism. In 19 cases the designation gold standard is questioned in such varied conditions as depression,¹ left ventricular function,² osteoporosis,³ and gastro-oesophageal reflux.⁴ This is not surprising, I suppose, as these are clinical conditions that are not amenable to the certainty implied in the term.

Because the phrase smacks of dogma its use should be discontinued in medical science. After all, the financiers gave up the idea of a gold standard decades ago.

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Provision of home births

EDITOR,—As midwives and general practitioners who regularly attend women giving birth at home we wish to respond to recent correspondence on maternity services.¹

For many families the only non-clinical bar to women choosing home birth is the refusal of their general practitioner to attend or sanction it. Community midwives are bound in law to attend if requested, although general practitioners need do so only in an emergency. As most community midwives we know regard home birth as not only the aspect of their work that gives them most satisfaction but the prime reason for choosing to work in the community, we are concerned that it is the medical profession that seems to be the impediment.

We support home birth: firstly, because of a woman's right of choice and our responsibility to ensure that the choice is fully informed; secondly, because our experience of attending home births shows that for some women home is the best place of delivery; and, thirdly, because there is sufficient evidence to show that low risk women fare as well at home as in hospital.² We are concerned at the false premises that are used as arguments to refuse home births—for example, that low risk is a retrospective diagnosis (a contradiction in terms); that the national improvement in perinatal mortality is significantly related to the change in policy from home to hospital delivery; and that transfers into hospital (which do not take into account unattended unplanned births) are associated with a high perinatal mortality. Similarly, bad experiences during the 1960s³ are no longer relevant.

Time has moved on and national circumstances have changed—for example, ambulance paramedical teams have been upgraded to replace flying squads. The Commons select committee has therefore rightly suggested that we should look again at home birth in view of the strongly expressed desire of midwives and a cohort of

women to keep this option alive. Doctors should not allow themselves to be seen as unable to accept unwelcome data as facts. Home birth will continue as a minority option but on present evidence could increase from 1.2% to between 5% and 10% of all births. We believe that it is in all our interests that we should allow home birth to find its own level.

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Psychological treatments for patients with cancer

EDITOR,—Commenting on the study by Steven Greer and colleagues,¹ Patricia McHugh and Shôn Lewis advocate wider adoption of psychological therapy for patients suffering from cancer.² This is a laudable aim, but large numbers of patients need psychological treatments and these treatments tend to be lengthy: Greer and colleagues reported a method that took six one hour sessions. Where is the time for such skilled work to come from? McHugh and Lewis consider that a serious look should be taken at some new initiatives without stating what these are.

The only practical way to deliver psychological treatment to large numbers of people is to incorporate self help techniques so that the patients in effect conduct their treatment with only a small input of time from the therapist. One such technique, which focuses on anxiety, which lies at the root of much distress in serious somatic disease, is anxiety control training.³ This is a method that I based on medicational practice; it is easily taught, is acceptable to patients, and takes about six 10 minute sessions. Colleagues and I recently concluded a follow up study in phobic patients and showed that improvement continues after sessions with the therapist have stopped so long as the patient continues to conduct the 10 minute practice sessions at home.⁴ The technique can easily be conducted on a domiciliary basis by community nurses and is, I suggest, just the type of procedure that should be researched in cancer.

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Cholera in Brazil

EDITOR,—Having just returned from our medical student elective in Brazil, we know that cholera has spread far into Brazil since P D Marsden wrote the letter from Brasília¹: during March and April cases began to occur in the major cities of the north east coast, infected carriers travelling south by road or air from the Amazon basin. In the small coastal state of Pernambuco alone over 1200 cases had been reported by early May. In the first week of

May cholera was confirmed in Bahia, only two states north of Rio de Janeiro, and at the airport of Foz do Iguaçu, Paraná state, on Brazil's southern border with Argentina.

Standards of sanitation are poor in the shanty towns of every big city and in the countryside: 70% of Brazil's 145 million people do not have proper drainage, and 15% have no access to clean drinking water. Newspaper coverage of the dangers, however, is extensive, and there are many educational posters. Information leaflets illustrating hygiene and sanitary measures are distributed at bus stations and airports; Ministry of Health officials meet intercity buses and check that no passengers have symptoms; and an announcement warning of the symptoms of cholera is made during domestic air flights. The Ministry of Health runs a campaign on television and through schools to educate people about oral rehydration therapy; sachets of oral rehydration salts are available free from every health post, and double ended plastic spoons for making up home made sugar and salt preparations are distributed through churches by the Brazilian conference of bishops. Amazonian Indians in some areas have had large tanks for collecting rainwater installed in their villages so that they no longer need to drink untreated river water.

Despite the efforts of the Ministry of Health it seems likely that cholera will soon spread to the major conurbations of Rio de Janeiro and Sao Paulo with devastating effects on the poor populations there.

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Treatment of elderly patients with breast cancer

EDITOR,—J Michael Dixon's editorial on the treatment of elderly patients with breast cancer¹ prompted us to carry out a subgroup analysis of the 198 patients aged 70-80 in the Scottish adjuvant tamoxifen trial who were randomised to tamoxifen either for five years after mastectomy or for treatment of their first relapse.²

Although the numbers in the subgroups were unequal (89 patients were given tamoxifen as adjuvant treatment and 109 after relapse), the treatment groups were comparable (table). Alto-

Median age and distribution of other variables (number (percentage)) for 198 patients aged ≥70 at entry in the treatment arms of Scottish adjuvant tamoxifen trial

	Adjuvant tamoxifen (n=89)	Tamoxifen after relapse (n=109)
Median age at entry (years)	73.0	73.7
Nodal status:		
Negative	46 (52)	58 (53)
Positive	33 (37)	40 (37)
Tumour size:		
<2 cm	20 (22)	24 (22)
>5 cm	5 (6)	7 (6)
Oestrogen receptor status:		
Poor (<20 fmol)	14 (16)	17 (16)
Rich (≥20 fmol)	32 (36)	39 (36)
Postoperative radiotherapy	23 (26)	33 (30)

gether 19 (21%) and 28 (26%) respectively had postoperative radiotherapy because of a positive node sample, the remainder of those given radiotherapy being randomised to it because the surgeon had failed to remove a node for examination. Only half of each group had oestrogen receptor assays carried out. Thirty seven of the patients given adjuvant tamoxifen (42%) and 65 of those given tamoxifen after relapse (60%) are now dead.

Our findings in this age group suggest that