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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- 1 Johnson RN, Metcalf PA, Baker JR. Fructosamine: a new approach to the estimation of serum glycosylprotein. An index of diabetic control. *Clin Chim Acta* 1983;127:87-95.
- 2 Jeffreys AJ, Wilson V, Thein SL. Individual-specific "fingerprints" of human DNA. *Nature* 1985;316:76-9.
- 3 Gerber PD, Barrett J, Barrett J, Manheimer E, Whiting R, Smith R. Recognition of depression by internists in primary care: a comparison of internist and "gold standard" psychiatric assessments. *J Gen Intern Med* 1989;4:7-13.
- 4 Vine DL. Left ventricular function: is it a gold standard for comparing thrombolytic agents? *Kans Med* 1990;91:215-6.
- 5 Michel D. Mineral content and bone density: a gold standard for osteoporosis? *Fortischr D Med* 1989;107:16-7.
- 6 Mela GS, Savarino V. Doubt on pH-metry as an absolute gold standard for measuring acid gastroesophageal reflux. *Digest Dis Sci* 1990;35:282-3.

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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- 1 Correspondence. Maternity services. *BMJ* 1992;304:1056-7. (18 April.)
- 2 Campbell R, Beral V, MacDonald Davies I, MacFarlane A. Home births in England and Wales, 1979: perinatal mortality according to intended place of delivery. *BMJ* 1984;289:721-4.

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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- 1 Greer S, Moorey S, Baruch JDR, Watson M, Robertson BM, Mason A, et al. Adjuvant psychological therapy for patients with cancer: a prospective randomised trial. *BMJ* 1992;304:675-80. (14 March.)
- 2 McHugh P, Lewis S. Psychological treatments in cancer patients. *BMJ* 1992;304:1247-8. (9 May.)
- 3 Snaith P. *Clinical neurosis*. 2nd ed. Oxford: Oxford University Press, 1991.
- 4 Snaith RP, Owens DW, Kennedy E. An outcome study of a brief anxiety management programme: anxiety control training. *Irish J Psychol Med* (in press).

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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- 1 Marsden PD. Cholera. *BMJ* 1992;304:1170-1. (2 May.)

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

though the main beneficial effect of tamoxifen is to delay relapse and thus reduce mortality from breast cancer (20 (23%) deaths from breast cancer in the group given adjuvant treatment compared with 35 (32%) in the group given tamoxifen after relapse), it also has a striking cardioprotective effect (one fatal myocardial infarction (no radiotherapy given) without relapse in those given adjuvant treatment compared with 12 (five with radiotherapy) in those given the drug after relapse). Together these benefits have produced, after a maximum follow up of 12 years, a significant prolongation of survival, which was apparent only after three years from randomisation (hazard ratio 0.614 (95% confidence interval 0.41 to 0.92), $p=0.017$ with the likelihood ratio test fitting Cox's proportional hazard model). This overall effect on total survival is seen regardless of oestrogen receptor status, although the number of patients who were oestrogen receptor poor is too small (total=31) for statistical evaluation.

These results reinforce Dixon's comments regarding the potential benefits of adjuvant tamoxifen for breast cancer in elderly patients and highlight the additional protective effect against fatal myocardial infarction before relapse.¹

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- 1 Dixon JM. Treatment of elderly patients with breast cancer. *BMJ* 1992;304:996-7. (18 April.)
- 2 Breast Cancer Trials Committee, Scottish Cancer Trials Office (MRC). Adjuvant tamoxifen in the management of operable breast cancer: the Scottish trial. *Lancet* 1987;ii:171-5.
- 3 McDonald CC, Stewart HJ. Fatal myocardial infarction in the Scottish adjuvant tamoxifen trial. *BMJ* 1991;303:435-7.

Recommendations for use of hepatitis A vaccine

EDITOR,—As a microbiologist at a district general hospital I have received a number of inquiries during recent weeks from general practitioner colleagues about the recently licensed hepatitis A vaccine. I felt limited by the shortage of available trial results. In that respect I very much welcome the publication of the clinical trial by Anthea J Tilzey and colleagues.¹

The structure of the article causes me concern. The authors come from St Thomas's Campus, SmithKline Beecham, and the Central Public Health Laboratory. That is as one would expect with regard to the product evaluation. However, the article, in its title and text, also addresses the issue of recommendations for its use. Should this be included in an article of which the manufacturer is coauthor? This concern is compounded further by the absence of guidelines, at present, from the Department of Health.

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- 1 Tilzey AJ, Palmer SJ, Barrow S, Perry KR, Tyrrell H, Safary A, et al. Clinical trial with inactivated hepatitis A vaccine and recommendations for its use. *BMJ* 1992;304:1272-6. (16 May.)

AUTHORS' REPLY,—We are glad that M A Hegarty welcomes the publication of our paper as he felt limited by shortage of available trial results. As Hegarty states, the paper is multiauthored. We believe it is important to acknowledge the roles of all those who made a major contribution to our study.

We thought it important that the results of our trials should not be considered in isolation, as some readers might themselves wish to make use of the vaccine; we knew that the vaccine would be

available by the time our paper was published. The views we have expressed are shared by a number of leading experts in hepatitis A infections. Furthermore, our recommendations for the use of the vaccine were essentially in keeping with the Department of Health's recommendations for the use of human normal immunoglobulin for travellers,¹ which would include such groups as members of the armed forces and medical students on electives. Although we suggested that consideration should also be given to people who may be occupationally exposed to hepatitis A virus, such as sewage workers, and certain patient groups, such as homosexual men² and injecting drug misusers,³ we took care to provide appropriate references for readers to make their own assessment.

The Department of Health has yet to provide guidelines but medical practitioners with an understanding of infectious disease and epidemiology should have little difficulty in identifying appropriate people for vaccination.

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- 1 Department of Health, Welsh Office, Scottish Home and Health Department. *Immunisation against infectious disease*. London: HMSO, 1990.
- 2 Kani JIA, Handwani RAK, Gilson RJC, Johnson AM, Maguire HC, Tedder RS. Hepatitis A virus infection among homosexual men. *BMJ* 1991;302:1399.
- 3 Jenkerson SA. Hepatitis A among drug abusers. *MMWR* 1988;37:297-301.

Deaths from haemolytic disease of the newborn

EDITOR,—I Z MacKenzie and colleagues suggest that the Office of Population Censuses and Surveys (OPCS) data on death associated with haemolytic disease account for only 15% of the fetal loss attributable to the disease.¹ Although we agree that some cases are missed owing to fetal loss before 28 weeks' gestation, our records indicate that the magnitude of the discrepancy is far less.

In Yorkshire, from 1977 to 1990 inclusive, 114 pregnancies with detectable anti-D antibodies resulted in either spontaneous or therapeutic abortion (before the 28th week). In 44 of these pregnancies fetal loss seemed to be anti-D related, being due either directly to haemolytic disease or, where therapeutic termination occurred, to high anti-D levels, when the likelihood of a successful pregnancy was low. Over the same period 35 deaths were registered with OPCS (after the 28th week).

It seems that at most 55% of anti-D related fetal loss within Yorkshire will not have been registered, though this figure is the worst estimate as it includes the therapeutic abortions. Only 47% of deaths that were directly anti-D related were unregistered if therapeutic abortions are excluded. This implies that OPCS data underestimate fetal loss by about a half.

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Delayed diagnosis in NIDDM

EDITOR,—The paper by B M Singh and colleagues¹ reported findings similar to those from our department.² We questioned 150 newly diagnosed diabetic patients, 133 (89%) of whom had symptoms attributable to diabetes. Only 23 (17%)

symptomatic patients attributed their symptoms to diabetes. Twenty two (17%) had had symptoms for less than one month, 65 (49%) for between one and six months, and 36 (27%) for more than six months. The remainder could not be specific about the duration of symptoms.

We also inquired about a family history of diabetes to see whether this might influence the recognition of symptoms and speed of diagnosis. Sixty five (43%) patients had a relative with diabetes, and 51 (34%) had an affected first degree relative. Remarkably few of those with a family history realised the cause of their symptoms or appreciated their higher risk of developing the condition. This applied even when several members of the family were affected.

I agree with Singh *et al* that there is a need to educate the general public about the symptoms of diabetes but, with limited resources, it seems particularly important to concentrate on relatives of patients with non-insulin dependent diabetes who also have the means for screening with readily available blood or urine tests.

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- 2 Lloyd-Mostyn RH, Tan M. The influence of diabetic relatives on the diagnosis of diabetes. *Practical Diabetes* 1986;3:212-3.

Elderly people placed in wrong homes

EDITOR,—Fiona Godlee comments on the misplacement of elderly people in nursing and residential homes and on inadequate resources.¹ At a time of increasing demographic pressure the absolute reduction in the provision of both statutory residential homes and long stay NHS care is dictating the flow towards nursing homes. Valuable though nursing homes are, the soaring costs of support from the Department of Social Security do not necessarily reflect value for money, and some of the care procured is of inferior quality.

A continuing analysis (audit funded) of discharges from non-psychiatric hospitals in Aberdeen to continuing care, whether in a nursing home or a hospital, shows that those moving to nursing homes are much less dependent than those remaining in NHS continuing care wards. Among the first 25 residents admitted to each sector the mean modified Barthel index for those entering nursing homes was 33.0 (SD 5.1) compared with 23.8 (5.4) for those entering continuing care wards ($p<0.001$). (The modified Barthel index used in Aberdeen scores between 13 and 40, with the lowest score indicating maximum dependency.)

Although the dependency in many nursing homes is presently less than that in NHS continuing care wards,² this is changing rapidly. Those admitted relatively fit will age and become more dependent, and when the long overdue community care needs assessment is in place next year fitter people are likely to be offered more appropriate and cheaper care (whether at home or in residential settings that cost less).

Recent clinical experience suggests that nursing homes, relatives, and general practitioners are increasingly asking geriatric departments for advice and, at times, for problematic dependent patients to be removed from these homes and placed in NHS care. Such problems occur largely as a consequence of inadequate staffing, due partly to the insufficient funding available to nursing homes, many of which rely almost entirely on revenue from residents supported by the Department of Social Security.