Changes to obituaries are insensitive

EDITOR,—I deplore the *BMJ*'s decision to tamper with the obituary pages.¹ It strikes me as mean minded, discourteous, and insensitive to the bereaved. The BMA isn't a trade union, a scientific organisation, or an environmental pressure group. It should be a sort of doctors' common room where we can gossip, moan about managers and patients, and generally encourage one another. It now seems unable either to support its members while they are alive or to respect them when they are dead.

I'm sorry that this letter is 131 words long, isn't evidence based, and hasn't been sent by email. Nevertheless, I hope that it will be published as it contains no clichés, Latin words, or imperial measures; I've been a member of the BMA for 20 years (£4608 at current rates); and I enclose a stamped addressed envelope (19p).

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1 Lock S. How to write an obituary for the *BMJ*. *BMJ* 1995;311:680-1. (9 September.)

Low back pain

EDITOR,—Philip Brien and Michael J Brien are wrong to state¹ that Meade *et al*'s research in 1990 "showed that spinal manipulation performed by a chiropractor was more effective for low back pain than manipulation performed by a physiotherapist."² Even Meade *et al* made no such claim, and it is dangerous to perpetuate myths based on a misreading of research findings.

The comparisons in Meade *et al*'s study were between chiropractors and hospital outpatient treatment, not manipulation by physiotherapists. A true comparison would have been between manipulation by chiropractors and manipulation by physiotherapists in private practice who specialise in manipulation.

Elimination of factors that may affect outcome, such as early treatment, the motivation of the patient, and the frequency and length of treatment, would then have been far more likely.

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1 Brien P, Brien MJ. Low back pain. *BMJ* 1995;311:568. (26 August.)

2 Meade TW, Dyer S, Browne W, Townsend J, Frank AO. Low back pain of mechanical origin: randomised comparison of chiropractic and hospital outpatient treatment. *BMJ* 1990;300:1431-7.

The hypertensive disorders of pregnancy

EDITOR,—I am disappointed that F Broughton Pipkin's review on the hypertensive disorders of pregnancy does not mention a treatment that is both benign and effective.¹ As long ago as 1984 a group of us, drawn from obstetrics and gynaecology, psychiatry, and psychology, showed that training patients in relaxation resulted in a halving of the rate of admission of patients with hypertension in pregnancy because of the reduction in blood pressure achieved.² This is a cheap and simple treatment, and it would be a pity to ignore it.

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- 1 Broughton Pipkin F. The hypertensive disorders of pregnancy. *BMJ* 1995;311:609-13. (2 September.)
- 2 Little BC, Hayworth J, Benson P, Hall F, Beard RW, Dewhurst J, Priest RG. Treatment of hypertension in pregnancy by relaxation and biofeedback. *Lancet* 1984;i:865-7.

Decision analysis and screening for Down's syndrome

Estimate of uptake of amniocentesis is overoptimistic

EDITOR,—J Fletcher and colleagues raise many important issues regarding the difficulties in making population policies for antenatal screening for Down's syndrome.¹ Unlike in some previous studies, the authors give full attention to a wide range of outcome measures in their comparison of possible alternative policies rather than focusing simply on the number of cases of Down's syndrome detected. They also recognise that the weight given to each of these outcome measures varies significantly between individuals and groups of women, according to factors including age, family status, and culture. They conclude, correctly we think, that no single policy can meet the needs of all women in the population and that policies should not be implemented too rigidly. Despite this, we wish to make several observations on the paper, which could influence the conclusions drawn from it and policy decisions made.

Firstly, the authors' assumption of 75% uptake of amniocentesis (table II) in the current policy option is overoptimistic. Experience elsewhere suggests that uptake of screening based on age is likely to be between 40% and 50%.^{2,4} The result of this is an overestimation of the cost of this policy option, the number of iatrogenic miscarriages, and the number of cases of Down's syndrome detected. This does not seem to be taken into account by the sensitivity analysis and may mean that alternative policies may compare more favourably than is concluded.

Secondly, the impact of restricting serum screening to women over 30 seems to be to detect 4.7 cases a year rather than 6.4—a difference of 1.7 cases a year. It is unfortunate that the abstract, which will be widely quoted, rounds this to one case a year, when the actual figure, 1.7, is comparable to the 1.7 (2.9–1.2) difference in the number of miscarriages induced by amniocentesis between these policy options.

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- 1 Fletcher J, Hicks NR, Kay JDS, Boyd PA. Using decision analysis to compare policies for antenatal screening for Down's syndrome. *BMJ* 1995;311:351-6. (5 August.)
- 2 North West Thames Regional Health Authority Specialist Group in Clinical Genetics. *Purchaser's guide to triple testing for Down's syndrome*. London: North West Thames RHA, 1991.
- 3 Royal College of Obstetricians and Gynaecologists. *Report of the RCOG working party on biochemical markers and the detection of Down's syndrome*. London: RCOG, 1993.
- 4 Shackley P, McGuire A, Boyd PA, Dennis J, Fitchett M, Kay J, *et al*. An economic appraisal of alternative pre-natal screening programmes for Down's syndrome. *J Public Health Med* 1993;15:175-84.

Not using age specific values invalidates study

EDITOR,—J Fletcher and colleagues' paper does little to help purchasing authorities when they have to decide which screening programme and screening policy to choose when introducing screening for Down's syndrome.¹ While the methodology used in the paper is valuable when used correctly, the authors were wrong to apply the overall sensitivity and specificity of serum testing

obtained from whole population data rather than using age specific values. They argue that "this was done to reduce complexity." As a consequence of their not making allowance for the fact that in older women (those over 30) the sensitivity and specificity change dramatically with age, the results of their analysis are invalidated.

Making allowance for the changing sensitivity and specificity with age is quite simple, and several authors have published both theoretical and actual detection rates and false positive rates by broad age bands.^{2,4} The table gives the results for Fletcher and colleagues' option 5 if the data from my four year prospective study (which used the markers α fetoprotein and free β human chorionic gonadotrophin) and my observed detection rates and false positive rates are applied to their population and cost figures, uptake of amniocentesis, and fetal loss rates. These revised results show that, in routine practice, the proposed protocol will be more expensive than their current policy of offering amniocentesis to women over 35 and would result in the ratio of detected cases of Down's syndrome to fetal losses being close to that expected when screening the whole population. Also, the fetal loss rate is considerably higher than that calculated for a protocol screening the whole population but using a lower risk cut off; one might conclude that this policy is the most appropriate. In terms of cost per case detected, however, biochemical screening of women over 30 does have the lower unit cost.

Revised calculations for option 5 in Fletcher and colleagues' study (biochemical screening for women aged 30 and over) when appropriate age specific specificity and sensitivity are used

	Age band (years)		
	30-35	>35	>30
Specificity (%)	95.5	80.0	
Sensitivity (%)	71	92	
No screened	2192	874	3066
Cases of Down's syndrome in age group	3.24	4.77	8.01
Cases of Down's syndrome detected	2.30	4.39	6.69
Down's syndrome miscarriages in total population			2.00
Births with Down's syndrome			6.00
No of amniocenteses	93.71	166.06	259.77
No of miscarriages	0.94	1.66	2.60
Miscarriages due to amniocentesis per case of Down's syndrome detected	0.41	0.38	0.39
Total cost (£000)			110
Cost per case of Down's syndrome detected (£000)			16.4

This simple analysis of the data in Fletcher and colleagues' table II shows the danger of making invalid conclusions from oversimplified data. Similarly, the authors make oversimplifications in the data used to generate table III and figures 2 and 3. They use a sensitivity of 66% and a specificity of 95% when my and others' data suggest that the sensitivity in women over 30 is 82.6% and the specificity is 91.2%. Once more these oversimplifications make the conclusion virtually meaningless.

A decision analysis of this type is only as good as the assumptions made by the investigators. I am reminded of the computer adage "garbage in, garbage out." If policy is to be based on such procedures we must all ensure that the data that are used and the assumptions that are made do not invalidate the conclusions.

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1 Fletcher J, Hicks NR, Kay JDS, Boyd PA. Using decision analysis to compare policies for antenatal screening for Down's syndrome. *BMJ* 1995;311:351-6. (5 August.)

2 Spencer K. Despitage de la trisomie 21 à l'aide de la β -HCG libre: