levels below 10 mmol/l (180 mg/100 ml) or by measuring the metabolic rate.

The true lesson of the week was: Patients should not be given more calories than they can use because when calories are given in excess of this the "dehydration" described by Drs Prescott and Stoddart may occur.

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¹ Long JM, Wilmore DW, Mason AD, Pruitt BA. *Ann Surg* 1977;185:417-22.

Cerebral atrophy or hydrocephalus?

SIR,—Dr I W Turnbull (15 March, p 790) supported the call of your leading article (9 February, p 348) for a trial to determine the value of cerebrospinal fluid shunting in patients with dementia, gait disturbance, and hydrocephalus. He suggested that, in addition to static computed tomography, dynamic metrizamide cisternography should be the main investigation. We have performed a study which would suggest otherwise.¹

We compared results of preoperative tests (24-hour intraventricular pressure recording, cerebrospinal fluid infusion test, ventricular isotope clearance, and cerebral blood flow studies) with the response to shunting in 26 adult patients suspected of having communicating hydrocephalus. The potential of a patient to improve after shunting was reliably identified only by the finding of spontaneous waves of increased intracranial pressure, occurring once or twice a minute during the period of continuous monitoring. Similar observations have been made by others.²⁻⁵ The remaining tests often demonstrated an abnormality but were unreliable as predictors of the outcome in an individual patient. Intracranial pressure measurements should form an integral part of any future trial.

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¹ Pickard JD, Teasdale G, Matheson M, et al. In: *Intracranial pressure IV*. Berlin: Springer-Verlag (in press).

² Chawla JC, Hulme A, Cooper R. *J Neurosurg* 1974;40:376-80.

³ Symor J, Dorsch NWC. *J Neurosurg* 1975;42:258-73.

⁴ Brock M. *Radiologie* 1977;17:460-5.

⁵ Jensen F, Jensen FT. *Acta Neurochir* 1979;46:243-57.

Hypnotics and hangover

SIR,—It is useful for practitioners to be aware of benzodiazepine hypnotics, such as triazolam, with a relatively short half life. However, other comments about triazolam in your leading article "Hypnotics and Hangover" (15 March, p 743) should be read with caution.

The evidence for the statement that triazolam "is not associated with much detectable hangover" is a single study.¹ This was a study of young people; it is in older people that adverse effects of hypnotics are most troublesome. Further, it was only a relative lack of hangover by comparison with flurazepam 30 mg performance on, for example, a card sorting test at 2.30 pm the next

day in the triazolam 0.5 mg group was still impaired by comparison with the placebo group.

The statement that patients who wake early despite bedtime medication might take in addition triazolam at some point in the night to give them two or three hours' extra sleep is unwise, even though—as your editorial suggests—this advice is only for the "severely depressed." With the appropriate treatment early morning waking is one of the symptoms of severe depression that is the quickest to clear and one which, with sympathetic advice, patients can be helped through. A patient should not be advised to medicate himself when his cognitive processes may already be disturbed by a recent dose of another hypnotic, or to subject himself to yet further hangover the next day.

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¹ Veldkamp W, Straw RN, Metzler CM, Demissianos HV. *J Clin Pharmacol* 1974;14:102-11.

Chlormethiazole and temazepam

SIR,—The hypothesis that short half-life hypnotics such as chlormethiazole and temazepam have advantages in the management of insomnia, particularly in the elderly, may well be valid; and the recent paper by Dr R S Briggs and others (1 March, p 601) would appear to support this view. However, we feel that their experimental evidence and conclusions, which are based on substantially negative findings, may be criticised on the following grounds.

(1) The two-minute abbreviated letter cancellation task which they used to detect impairment of psychomotor performance skills may not necessarily be sensitive to the sedative effects of standard doses of hypnotics in the elderly population, particularly at 11 hours. Our own experience with a number of standard psychomotor tests in elderly individuals has shown that both low baseline scores and abbreviation of tests may result in loss of discrimination. Additionally, it is not stated whether practice effects were minimised by a prestudy regime of familiarisation, a major factor with this particular test.¹

(2) Sway was not measured between dosing and four hours. The accompanying table shows results of a study in this department of the effects of oral diazepam 10 mg (half-life 20-50 hours). Sway was significantly increased in elderly volunteers at 0.5 hours and 2.5 hours after dosage, but not thereafter. It is thus possible that interruption or failure of sleep earlier than four hours after benzodiazepine or other hypnotics may be associated with impaired standing steadiness in the elderly. These drugs distribute rapidly to the central nervous system and it has been suggested that, depending on dose, some effects may be limited to the early distribution phase, declining or

disappearing during the β -elimination phase which determines half-life.²

(3) Our experience with visual analogue scales is that elderly volunteers frequently rate themselves optimistically (that is, relatively unimpaired) compared with the young after sedative drugs, even in the presence of measurable impairment as judged by objective assessments. This would be consistent with the otherwise anomalous finding that, in contrast with the young, "the old were as awake after the two active treatments as after placebo" when roused at four hours, though other explanations are tenable.

Further detailed assessment of both acute and long-term response to hypnotics in the elderly would appear to be necessary in order to substantiate fully the conclusions reached in this study.

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¹ Lawton MP, Cahn B. *J Nerv Ment Dis* 1963;126:550.

² Breimer DD. *Sleep research*. Lancaster: MTP Press, 1979:63-81.

Examination of abortuses

SIR,—Dr A J Barson's comments on the examination of abortuses are timely (12 April, p 1055). If, however, they were extended to include spontaneous abortions, their value would be greatly enhanced. Such examination could yield information concerning the impact of various environmental pollutants on the fetus.

As a prospective means of monitoring noxious agents in the environment, examination of such spontaneous abortions has inherent advantages over methods based on the study of full-term pregnancy outcome. Since there is a higher frequency of congenital anomalies in spontaneous abortions the size of the sample necessary to demonstrate the statistically significant change in risk of teratogenesis can be considerably reduced. Concentration on fetal wastage in early pregnancy confers a distinct time advantage over studies based on neonates. The confounding effect of many related factors influencing the fetus in utero are minimised. Exposure to putative agents at critical times can also be assessed with a reasonable degree of reliability. The relative ease by which the abortus may be examined is a contributory factor to its superiority over anything that may be possible in later pregnancy. The epidemiological surveillance of spontaneous abortion may prove to be a powerful investigative tool in the study of teratogenesis and related pathological processes. Other problems inherent in the assessment of community environmental exposures

Sway after oral diazepam (10 mg) vs placebo (Values are mean scores, with ranges in parentheses)

Time (h)	Young subjects (mean age 22.1; n = 11)				Elderly subjects (mean age 72.4; n = 12)			
	0.5	2.5	4.5	6.5	0.5	2.5	4.5	6.5
Placebo	9.7 (0.9-20.3)	9.7 (1.6-22.4)	9.7 (2.7-25.2)	9.5 (2.6-20.3)	19.8 (6.9-34.2)	19.0 (3.7-31.3)	19.2 (5.0-35.5)	18.9 (4.3-34.2)
Diazepam	12.7 (3.2-23.8)	12.2 (2.9-26.5)	8.4 (3.7-17.5)	9.3 (3.9-21.5)	31.8* (14.0-57.3)	29.4* (12.5-61.3)	26.4 (10.8-65.4)	18.8 (10.6-30.1)

*Significant difference from placebo ($p < 0.05$; Wilcoxon test for matched pairs).

may limit its use. In work-place situations, however, where exposures are routinely monitored this approach can find wide application contributing to our understanding of occupational hazards to the unborn.

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Mild hypertension

SIR,—In your leading article "Mild hypertension" (19 April, p 1062) you discuss the results of a number of surveys without drawing attention to diastolic endpoint. This article is designed for wide readership and it is still not universally appreciated that the American convention is to use the point of "disappearance of sounds," whereas most practising doctors in these islands use the point of "muffling." You advocate treatment for patients with confirmed diastolic pressure of greater than 95 mm Hg. As doctors in this country are likely to interpret this as the point of "muffling" it may result in many patients being treated unnecessarily and possibly with harmful results.

It has always been a mystery to me why, despite your recent efforts, so little attention is paid to the techniques of blood pressure measurement.

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Carbon monoxide yield of cigarettes

SIR,—We would like to add two comments on Mr Peter N Lee's statements (15 December, p 1584; 1 March, p 646) that the major part of the tar reduction in British cigarettes occurred *before* the publication of the first tar table in 1973 and that this tar reduction therefore occurred on the industry's own initiative and was not stimulated by the publication of tar tables.

Firstly, it is useful to distinguish the sales-weighted average tar delivery of cigarettes (a measure of the response of the smoking public to anti-smoking educational campaigns, changing cigarette tar deliveries, etc) from the proportion of all brands which are low tar (a measure of the response of the industry). Consistent with a significant effect on the industry of the publication of tar tables, there was an appreciable increase in the UK in the proportion of low-to-middle-tar and low-tar brands from 1972 (24 of 101 brands) to 1977 (51 of 114 brands).¹ Secondly, the first Canadian tar tables were published in 1969² (see also letter by Dr George E Moore, 2 February, p 331) and *subsequently* sales-weighted average tar levels (dry, 23 mm butt length) decreased from about 26.5 mg in December 1969 to 21.3 mg in 1975.³ In the United States there was a decrease from 21.3 mg in 1968 to 18.3 mg in 1974.³ Hence the initiative of the British industry may have been affected by the experience in North America.

With respect to the risks due to carbon monoxide (CO) from smoking, it is debatable whether cholesterol-fed animals or those with normal diets are a better model for extrapolating to human populations. Likewise, it is almost impossible to prove that relatively high CO levels in cigarettes will not lead to

additional deaths from coronary heart disease, since it is probable that various smoke constituent interactions affect death from this cause (see also letter by Dr N Wald and Sir Richard Doll, 1 March, p 646). Similarly, a role for CO is not excluded by the observation that smokers of cigarettes with reduced tar and nicotine levels and smokers of filter rather than of plain cigarettes show a reduced risk of coronary heart disease. However, because CO can be a health hazard, as Dr Wald and Sir Richard Doll point out, and it is the practice in some countries to list the constituents of products sold for public consumption, CO yields of individual brands of cigarettes should be published with tar and nicotine levels. This has recently been done in Canada and South Africa,⁴ for example; and the US Federal Trade Commission has also announced plans to test and publish the CO deliveries of cigarettes.

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¹ Capell PJ, *World Smoking and Health* 1979;4(1):14.
² Forbes WF, *et al*, *Cancer* 1969;23:910.

³ Thompson ME. *Statistics of smoking in Canada*.
Health and Welfare Canada, 1979.

⁴ Seftel HC, *S Afr Med J* 1979;55:743.

Medical school intake and manpower implications

SIR,—Professor J M Last (19 April, p 1089) is not the only one who has tried to alert the profession to the dangers of overproduction of medical students. As he says, the difficulty is to get a hearing. The ineluctable rule has been overlooked—that for every extra medical student 30 extra career jobs will in the end need to be created. The warnings of the retrenchment lobby, like those of Cassandra, have been true but because they are unwelcome have been ignored. At present it is only financial stringency that is restraining the increase in student intake. There must be a planned reduction, agreed between the profession and the University Grants Committee, to achieve replacement balance and no more.

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Health hazards from the nuclear industry

SIR,—I would strongly support Dr Nini Ettlinger's call (26 April, p 1123) for the BMA to act as a watchdog over the health aspects of the fast-growing nuclear industry. It is, to my mind, irresponsible to leave the great nuclear power debate entirely to the experts of the pro and anti lobbies. The public has a right to an independent body capable of giving an authoritative and unbiased opinion and monitoring the effects of nuclear radiation on the nation's health.

If the BMA does not do this, who will?

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Points

Measles again

Dr P E BROWN (University Department of Community Medicine, Sheffield S10 2RX) writes: Dr Hillas Smith (15 March, p 766) points out that although immunisation has reduced the incidence, mortality, and morbidity of measles in the USA, and may even lead to its eradication, other kinds of effect are only just beginning to be appreciated. . . . Infants under 5 months have in the past been considered relatively immune to measles because of maternal antibodies, their mothers almost always having had the natural disease. Measles in the newly born babies of mothers who have not had the infection themselves is consequently rare; but the case reports that there are, such as the one in Jessica Mitford's autobiography, suggest that it is a condition even more serious before 5 months than it is after. Are we fully alive to the possible dangers of bringing into the world successive cohorts of babies with no maternal antibodies to protect them against measles in their early months?

Bacterial infection in the newborn

Drs J C CLAY and F M LANIGAN-O'KEEFFE (VD Department, General Hospital, Birmingham B4 6NH) write: We have enjoyed reading "The First Year of Life" but . . . in connection with the sexually transmitted diseases (15 March, p 772) we feel that readers may be misled into thinking that local chloramphenicol has no action on gonococcal ophthalmia. While it is not very efficient, it may well suppress or even sometimes cure gonococcal eye disease. In addition, this form of therapy is notorious for suppressing the signs of conjunctivitis due to *Chlamydia trachomatis* until after the baby has been discharged from hospital.

Dr P D SIMMONS (Department of Genital Medicine, St Bartholomew's Hospital, London EC1A 7BE) writes: I was disappointed to see once again that gonococcal infection in women can be diagnosed by taking a high vaginal swab, as recommended by Dr H B Valman in "Bacterial infection in the newborn" (15 March, p 772). Women with suspected gonorrhoea should have urethral, cervical, and rectal tests on three separate occasions before gonorrhoea can safely be excluded. The boyfriend or husband should also be checked.

Rational use of antibiotic therapy after appendicectomy

Dr ADOLF SINGER (Mount Sinai School of Medicine, City Hospital Centre, Elmhurst, New York 11373, USA) writes: In their study "Rational use of antibiotic therapy after appendicectomy" Mr D J Pinto and Dr P J Sanderson (2 February, p 275) have not mentioned a third alternative—to leave the skin and subcutaneous tissues open after suturing the peritoneum and muscle. This is the most commonly used approach in this hospital after removal of a perforated or gangrenous appendix, and is very successful in preventing wound infection. The incision may be closed secondarily with Steri-strips or sutures, or may be allowed to heal by granulation with usually excellent clinical and cosmetic results.