transfusion centres screen all donations in a search for carriers before issuing blood to hospitals. We now simply reject donors known to be carriers and those with a history of hepatitis (jaundice) *within the previous 12 months*. Donors should not have been in close contact with a case of hepatitis during the previous six months. The decision whether to accept the donor is based on the history taken at the bedside during a donor session.

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Giving RSV vaccine intranasally

SIR,—I was interested in the reports of failure of immunisation to protect young children from respiratory syncytial virus (RSV) infections (leading article 25 August, p 457). In the studies quoted, a rise in serum antibody against RSV is often observed following systemic vaccine inoculation, but no mention is made of attempts at intranasal administration. The beneficial effects of local cellular and humoral immunity in the lung in response to local attenuated virus vaccines have been well documented.¹ Preliminary work suggests that immunity against rotavirus gastroenteritis may be related to local rather than systemic antibody and that the oral route of vaccine administration may be more protective than the systemic.² It would be interesting, therefore, to observe if intranasally administered RSV vaccine would be more protective than its systemic counterpart.

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¹ Newhouse, M, Sandins, J, and Bienenstock, J, *New England Journal of Medicine*, 1976, **295**, 1045.

² Chanock, R M, Wyatt, R G, and Kapikian, A Z, *Journal of the American Medical Veterinary Association*, 1978, **173**, 570.

Rubella vaccination

SIR,—While it is true that Dr Max Gringras (13 October, p 933) found high acceptance rates for rubella serotesting, he ignores the point that this was in general practice and not in area health authority family planning clinics. There are several reasons for the differences in acceptability—different client groups, the relationship with the doctor—all of which will effect compliance.

Under the present system, we are ethically prepared to risk causing terminations in seronegative women and ethically prepared to accept our impotence in preventing much larger numbers of terminations in unprotected women exposed to natural infection. Surely, by definition, our ethics should be consistent.

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Hypertension and general practice

SIR,—I am delighted to know that Dr D G Beevers (3 November, p 1137) is not responsible for the disgracefully low level of

diagnosis and treatment of hypertension in Great Britain, but that that old whipping boy the general practitioner can confidently be blamed for it.

If he were to spend one week in general practice he would realise that the average time available for a consultation is five minutes, give or take a few minutes. This is also the time it takes to measure the blood pressure properly. Which would he have? Although the number of doctors in hospital practice has increased enormously in recent years, there has been no parallel increase in the number of GPs.

What we need is more doctors in general practice to ease the very considerable burdens in that specialty, and perhaps this is the problem which Dr Beevers should take up in his next confrontation with the television cameras.

The considerable number of GPs currently running the Medical Research Council's mild-to-moderate hypertension trial, those in hypertension units all over the country, and the many others who are increasingly aware of the problem of hypertension must find the comments of Dr Beevers at the very least disheartening.

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Blood pressure measurements

SIR,—I, like Dr Eoin O'Brien and Professor Kevin O'Malley (3 November, p 1126), believe that selected hypertensive patients should be encouraged to measure their own blood pressures. However, I would suggest that for greater simplicity in self-recording the stethoscope should be discarded by the patient. With the aneroid or mercury manometer a satisfactory estimate can be made of the systolic blood pressure when the "knocking" sensation of the Korotkoff sound is felt in the brachial artery. The diastolic level can be reasonably accurately measured by the rather abrupt diminution or disappearance of the "knocking" sensation as the pressure in the cuff is reduced. The accuracy of measurement is certainly adequate for the efficient day-to-day management of high blood pressure.

Changes in the magnitude of oscillation of the aneroid stylus also occur at systolic and diastolic levels but they are more difficult to identify than the changing sensations in the brachial arteries.

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Pulmonary impairment and disability

SIR,—While it is always nice to be quoted by Minerva (29 September, p 801), it is nicer still to be quoted accurately. Only the neophyte would suggest that pulmonary function tests are an objective measurement of respiratory disability; in reality they measure pulmonary impairment, and the distinction between impairment and disability is crucial.¹

Minerva's second comment on my paper is also a trifle misleading. She implies that I said, "The effect of breathlessness on employment seems to depend most on the gap between earnings and sick pay and whether or not the work is interesting." While it is true that those

persons who are well paid and who have a job that they find interesting are more likely to continue working despite significant pulmonary impairment than those who have tedious, less well-paid jobs, I am not sure whether the decision to return to work depends all that much on whether the subject complains of shortness of breath. The same factors seem to operate in regard to the time off work following an acute illness or an operation, such as a myocardial infarction or lobectomy.

In questioning Minerva I trust I shall not suffer the fate of Arachne and be turned into a spider.

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¹ Morgan, K, *Chest*, 1979, **75**, 712.

George Gershwin

SIR,—Minerva's paragraph (20 October, p 1007) brings to mind information which came my way in America about 15 years ago, which throws light on at least the first referral of this neurosurgical case to a psychoanalyst.

The initial symptoms occurred when Gershwin, then 38, was performing his gorgeous piano concerto in one of the Californian cities. At one point he unaccountably seemed to pause and then jump four bars. The conductor pulled them together, and in conversation with the soloist afterwards it turned out that Gershwin had little recollection of the incident, but mentioned a momentary giddiness and a smell of burning rubber. The headaches began a day or two later.

At this time, George's brother, Ira, had been in touch with an analyst, in whom he had developed great confidence; so on hearing about the headaches he persuaded, or over-persuaded, his brother to consult this analyst. From then on Gershwin had no lack of well-wishers and their advice. As a result, he consulted at least three neurosurgeons or neuropsychiatrists in New York, Florida, and California, making tedious flights that in those presumably unpressurised conditions must have been hazardous for a brain tumour. In the outcome, neither localising nor even lateralising signs were elicited and the inference was that no surgeon, faced with such an illustrious patient, would take the risk of opening up first the wrong temporal lobe.

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Possible treatment for cold sores

SIR,—I have noted the letters on possible treatment for cold sores about using borates and the plea for ice (3 November, p 1150). If there is a helpful pharmaceutical service available Miller¹ describes how active herpes-virus infection could be treated using influenza virus vaccine intradermally as mentioned by Lee in 1961.

I have used the diluted vaccine on cases of mild herpes with healing of eruptions in a couple of days; I have not yet had any cases with severe symptoms to see if his report of symptoms clearing in 30 minutes holds for patients on this side of the Atlantic. But the

multidose bottles with normal saline and 0.4% phenol solution took time to prepare and sterilise even though the influenza solution was the A and B mixture on the shelf. Miller started using the dilutions with cases of influenza and gave the discovered dilution if the symptoms recurred subcutaneously. He has been studying this phenomenon since 1968 on herpes simplex virus type 1 and type 2 and finds it effective in the acute phase. He is also trying the regimen in infectious mononucleosis.

I hope that this technique of the allergist will help Dr Ian Calder say to his patient who feels that ice is better than the local witch doctor: "Dr Miller has a better way still."

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¹ Miller, J B, *Annals of Allergy*, 1979, 42, 295.

Benign recurrent vertigo

SIR,—Your leading article on benign recurrent vertigo (29 September, p 756) reviews a timely paper on the significance of this symptom complex and makes several assertions which, while they represent standard and established teaching, may be incorrect and do bear further examination.

What evidence is there that disordered function of the labyrinth is the commonest cause of vertigo? In the article under review, for instance, the results of caloric tests were normal in all instances and the changes on electronystagmography might have denoted central rather than peripheral defects.

Even more debatable is the statement that Ménière's disease is the commonest form of labyrinthine vertigo. In Aberdeen at least, where we have a practice of free cross-referral between otology and neurology and have the benefit of expert and detailed neuro-otological investigation in a high percentage of such patients, the consultant staff involved estimate that no more than 20-30 cases of Ménière's disease have been seen in the last two years out of over 200 patients investigated for vertigo. It is my impression that many more cases of positional vertigo of the benign paroxysmal type are seen than of Ménière's disease. The patients described by Slater¹ and discussed in your article suffered from brief positional vertigo following a spell of more persistent vertigo. While such patients are seen I suspect that they represent no more than one point on a spectrum of disorders which range from "vestibular neuronitis" at one end to "positional vertigo of the benign paroxysmal variety" at the other.

The hypothesis that vascular disturbances may play a part in benign vertigo is not new but has considerable appeal. If a "migraine equivalent" or, more specifically, migraine of the vertebrobasilar system is involved in these disorders then it might explain why modern neuro-otological examination so often shows up puzzling and at times worrisome evidence of "central" rather than "peripheral" defects in people in whom no other evidence of serious disease of the central nervous system can be found.

Vertigo is neither an easy nor a very popular subject for investigation. Traditionally it has been regarded as the prime concern of the otologist, and indeed it is thanks to the work

of the neuro-otologist in particular and the somewhat unexpected findings that appear on his examinations that traditional teaching may now be questioned more with some objective support. Further advance in the understanding of vertigo may, however, require a multidisciplinary approach, as is necessary in the case of migraine itself. How this may be best organised is open to dispute and to different solutions in different areas. The time necessary for neuro-otological investigation alone is such that attempts to see patients in a joint "dizzy clinic" are likely to lead to inadequate time for other investigations. Apart from otologists, neurologists, physicians, and indeed psychiatrists may all be implicated in this problem but routine referral to each in turn would be impractical. A doctor interested in vertigo in any one or more of these disciplines may act as a focus for the investigation. It is doubtful whether interested general practitioners would see enough of such patients within their own practice to be able to develop sufficient experience to carry such investigation much further. No ready answer offers itself but I am uneasy that vertigo should continue in general to be deemed to be dealt with adequately by the prescribing of labyrinthine sedative drugs, and if this fails by referral primarily to an otologist (whether or not skilled in neuro-otology), which I think is still the common pattern in most areas. I would be interested in the reactions of other readers to these suggestions.

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¹ Slater, R, *Journal of Neurology, Neurosurgery and Psychiatry*, 1979, 42, 363.

Cimetidine and cardiovascular complications

SIR,—I read the article entitled "Life-threatening arrhythmias and intravenous cimetidine" by Dr J Cohen and others (29 September, p 768) with interest; however, it needs further comments.

I am not surprised that in case 1 five minutes after cimetidine was given intravenously the blood pressure fell abruptly from 120/80 to 80/60 mm Hg. Hypotension has been observed in patients who were given bolus injections of cimetidine. Therefore I have emphasised¹ that cimetidine should be administered in the infusion form to prevent this complication.

The anuric patient (case 2) developed hypotension, atrial extrasystoles, and cardiac arrest following 800 mg cimetidine given intravenously within three hours. Since the patient was anuric, the dose of cimetidine should have been reduced considerably because the principal route of excretion of cimetidine is renal.

Black *et al*² have shown that the chronotropic effect of histamine on isolated guinea-pig atrium could be selectively blocked by H₂-receptor antagonists. Therefore cardiovascular side effects have occurred in patients who have received high doses and who have renal impairment and in elderly patients. I believe that Dr Cohen and his colleagues have confirmed the recent French report of cardiac arrest after cimetidine therapy³ and that their case reports make determination of the causal role possible.

This letter is intended to emphasise the hazards of an intravenous bolus of cimetidine and stress that doses of cimetidine should be adjusted according to the renal status of the patient to prevent these complications.

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¹ Ahmad, S, *Southern Medical Journal*, 1979, 72, 509.

² Black, J W, *et al*, *Nature*, 1972, 236, 385.

³ Bournérias, F, *et al*, *Nouvelle Presse Médicale*, 1978, 7, 2069.

On-demand analgesia equipment

SIR,—A reply to Mr M Darbyshire's letter (3 November, p 1143) seems necessary as his points are inaccurate.

Firstly, the "safety regulations" referred to presumably mean the standards contained in *Hospital Technical Memorandum/8* for electrical and electromechanical safety; we did not refer to these aspects of the machine's design and the comment is not relevant. We do agree, however, that the equipment meets these particular requirements, as indeed it must.

Secondly, the thumbwheel switches on the front of the machine (a) are not "protected" in any way—they are fully accessible to anyone who cares to alter them; (b) the digital indicator above the switch shows the "dialled dosage" only when the patient makes a demand—otherwise it shows a row of bland zeros.

Thirdly, the "secure cover" on the rear switches is a simple, transparent plastic sliding panel.

Fourthly, the implication that the patient is safe because the maximum amount of analgesic she could receive is that contained in a full syringe perhaps reflects an engineer's point of view. It is to guard against the possibility that a patient could receive the total content of a syringe in one dose that we draw attention to the factors which could allow this to happen.

The implication of Mr Darbyshire's letter is that we as users "in the market place" did not share our views and anxieties with Pye Dynamics Ltd. This is not the case; we wrote more than once to this firm, but, apart from one brief visit by a representative after several months, no comments were ever received. It was for this reason that it was thought necessary to write the original letter.

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No comment

SIR,—I am surprised at the absence of any comment on two topics recently appearing in your columns.

On 8 September (p 607) there was a letter signed by 25 doctors from various countries who stated, after attending a conference in Japan, that there was overwhelming evidence that clioquinol can cause serious and irreversible injury to the nervous system. In 1972, after a month in Japan seeing cases of SMON (subacute myelo-optic neuropathy), I expressed the opinion that clioquinol was