figures are in fact quoted in that report, but it can be inferred that they have been obtained from *Statistics of Smoking in the United Kingdom* published by the Tobacco Research Council. The latest edition for 1972 contains the figures quoted in your article but these relate to the proportion in 1971 of smokers of any kind (that is, including smokers of cigars or a pipe) and not just to cigarette smokers. In 1971 the proportion of men in the United Kingdom who were smokers of manufactured cigarettes was 51% and the proportion of women was 42%.

When dealing with statistics of the prevalence of smoking it is important to distinguish between all smokers, all smokers of cigarettes (including hand-rolled cigarettes), and smokers of manufactured cigarettes. The difference between the percentage of manufactured cigarette smokers and that of all smokers can be as large as 15% for men, though the difference is negligible for women.

If the three quantities become confused (as appears to happen in your article), then a very misleading picture can be given.

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Vitamin C and the common cold

SIR,—Some of the trial evidence to which you refer¹ in your leading article (13 March, p 606) was subsequently discussed.²⁻³ Repetition of the trial⁴ demonstrated that vitamin C administration produces a significant beneficial effect on cold symptoms induced by intranasal instillation of the common cold virus.⁵ You discuss our trial in schoolchildren⁶ and comment on the criticisms of Dykes and Meier.⁷ They drew our attention to an error of transcription in table I of our paper.⁸ The mean $\pm$ standard error of the symptom intensity of catarrhal colds in boys who were receiving placebo tablets was 0.31 ± 0.09 , not 0.18 ± 0.05 . This provides a t value of -0.96 as stated in our table. The description of our trial was also criticised in that we did not comment on the make-up of the placebo or provide any evidence on the maintenance of double-blind conditions. We described these details fully in another paper to which reference was given.⁹ White tablets, identical in colour, taste, and consistency, were provided as active and dummy tablets to the students. During the trial it was never suggested by the students to the school matrons that the tablets differed in any way from each other. The school matrons who administered the tablets were unaware that they differed in formulation. The trial was therefore fully double-blind with respect to both tablet constitution and administration. Results obtained from prophylactic trials on the effect of vitamin C on common cold symptoms indicate that daily administration of vitamin C within the dose range 200-2000 mg exerts a significant effect against the common cold. The evidence from these and other recent trials which you omit to mention was reviewed last year.⁵

When vitamin C is used for cold prophylaxis the raised ascorbic acid tissue concentrations during periods of normal health may induce greater tissue utilisation of the vitamin, thus increasing tissue metabolic activity and defensive efficiency. If viral penetration occurs despite high tissue ascorbic acid levels, no

excess of ascorbic acid above the elevated tissue requirements is then available. This may be why some individuals on prophylactic ascorbic acid develop severe colds, and continue to have cold symptoms, when the defences have been breached.⁹ In these circumstances, as you imply, further supplementation of the dose may be capable of controlling symptoms by further enhancing body defence. It probably exerts its prophylactic and therapeutic effects by enhancing defence mechanisms against viral attack and spread through the tissues and by promoting subsequent tissue healing.¹⁰ In the absence of ascorbic acid, rhinovirus acts as a poor inducer of interferon, but it is susceptible to ascorbic acid.¹¹ Ascorbic acid may exert its benefit by promoting cyclic AMP production¹² and by enhancing interferon production¹³ and reducing prostaglandin synthesis¹⁴⁻¹⁵ during colds.

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Ischaemic heart disease in epileptics

SIR,—We note with interest three reports in the *BMJ* concerning ischaemic heart disease (IHD) in patients with epilepsy. Professor V Lindén (12 April 1975, p 87) suggested that IHD was rare in patients with chronic epilepsy. Dr S Livingston (6 March 1976, p 586) was also of the opinion that patients with epilepsy have an exceedingly low incidence of IHD. In both these letters the suggestion is made that long-term anticonvulsant therapy reduces the risk of IHD. On the other hand, Dr R Pelkonen (11 October 1975, p 85) reported that "an increase in serum cholesterol may be regarded as an untoward effect of long-term phenytoin treatment because it increases the risk of coronary heart disease."

We recently completed a study of IHD in a cohort of 310 patients with epilepsy.¹ This cohort is composed of residents of Rochester, Minnesota, with epilepsy newly diagnosed during the period 1935-67. Since the age- and sex-specific incidence for the mortality of IHD are known in this population it was possible to determine the numbers of IHD deaths and cases expected to occur in this cohort.

The mortality from IHD was not significantly different, as 20 deaths from IHD were observed while 16 were expected. With respect to the incidence of IHD, the expected number of cases was 15.7, while 25 such cases were observed. This difference was of border-

line statistical significance ($P = 0.05$), and might be attributable to factors not directly related to epilepsy itself.

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¹ Annegers, J F, and Labarthe, D R, *Epilepsia*. In press.

Temperature rhythm in manic-depressive illness

SIR,—Drs Georgia Nikitopoulou and J L Crammer (29 May, p 1311) adduce some interesting evidence in favour of time discordance in depression. They postulate that the disruption of normal temperature swing found in their subjects might be due to desynchronisation relative to other subsidiary circadian rhythms.

However, some advantage might be seen in a model wherein the time conflict is shifted centrally. This would have the depressed subject revert to a "basic" endogenous diurnal rhythm, specific for each individual.¹ Such a time scale could be controlled by an archaic central biological clock out of step with the 24-hour solar day. An inherent central rhythm of this kind may have complete dominance at nights and only hesitatingly entrain with the 24-hour clock when the subject wakes. The more severe the illness, the less effectively will the time-markers of the advancing solar day pull the subject back into his premonitory circadian rhythm.

Expressed in a homely way, the patient aroused in the morning by the solar alarm clock may be unkindly drawn back towards oblivion by his personal central clock indicating a different hour of the day. Hence derive, perhaps, the well-known subjective and variable morning torpor and also such objective data as, for example, that of temperature disturbance described by the authors.

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¹ Aschoff, J, *Science*, 1965, **148**, 1427.

Fetomaternal haemorrhage and fetofetal transfusion syndrome

SIR,—In their interesting article on "Small infant thymus in cases of fatal fetomaternal transfusion" (20 March, p 694), Drs J Ellis and H G Kohler compare the findings in their cases of fetomaternal haemorrhage with those in the anaemic (donor) twin in the fetofetal transfusion syndrome.

While agreeing that cellular immunity may well be depressed in the fetofetal transfusion syndrome, as suggested by Naeye's finding of low-weight thymuses in donor fetuses,¹ we feel, however, that the situation regarding humoral immunity is not comparable. As the immunoglobulin IgG is almost entirely of maternal origin the fetal condition in itself, unless associated with abnormal placental pathology, should not influence the amount of IgG present in the fetus.

In a pair of twins of 33 weeks' gestation with dichorial placentation, of whom only one had suffered from a maternofetal haemorrhage,² we found that the intrapair discrepancy in cord serum IgG concentration was not greater than

that in "normal" twin pairs³ (anaemic twin IgG 5.40 g/l; normal twin IgG 5.43 g/l). In contrast, in cases of the chronic type of fetofetal transfusion syndrome the donor twin had abnormally low levels of IgG whereas those of the recipient were within the normal range.³ There were invariably large intrapair discrepancies and we suggest that this may be due to a disturbance in the maternofetal transfer of the immunoglobulin across the donor portion of the placenta, which is frequently oedematous and histologically abnormal in such cases.⁴

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¹ Naeve, R L, *American Journal of Pathology*, 1965, 46, 929.

² Bryan, E M. Unpublished data.

³ Bryan, E M, Slavin, B, and Nicholson, E, *Archives of Disease in Childhood*. In press.

⁴ Strong, S J, and Corney, G, *The Placenta in Twin Pregnancy*, p 71. New York, Pergamon, 1967.

Design of clinical trials

SIR,—In reply to Dr I S Muir's letter (15 May, p 1213) commenting on our paper on the effect of atenolol in hypertension (24 April, p 990) we agree with him that a placebo period, either randomly allocated or placed at the end of the study, would have been desirable. However, we strongly disagree with his statements (1) that the fall in blood pressure of about 25-20 mm Hg observed between the four-week placebo run-in period and the fourth week of active treatment may have been the effect of time and habituation to their clinical routine and (2) that his interpretation of results was supported by the fact that the treated blood pressures were independent of dosage.

These statements may indicate a lack of both practical experience of clinical trials in hypertension and a knowledge of atenolol. The "defence" and "orienting" reflexes described by Pickering¹ and the placebo response are largely complete at four weeks, though a further mild placebo effect can be seen for a longer period of time. Hansson *et al.*,² comparing atenolol with placebo, demonstrated a fall of about 4 mm Hg systolic and 4 mm Hg diastolic blood pressure in the first four weeks of placebo and no further fall over the next three months on placebo. Petrie *et al.*,³ comparing atenolol with bendrofluzide, showed no fall in blood pressure during a four-week placebo run-in period. So the placebo effect, under controlled blind conditions, must not be overestimated. With regard to all doses of atenolol achieving a similar fall in blood pressure, this "flat dose-response curve" of atenolol is now well known, having been described in several publications.²⁻⁵

So we agree that our trial design was not perfect but did take into account a placebo effect. The results are quite consistent with those obtained from other controlled blind studies.

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¹ Pickering, G, *High Blood Pressure*, 2nd edn, p 36. Edinburgh and London, Churchill Livingstone, 1968.

² Hansson, L, *et al*, *British Medical Journal*, 1975, 2, 367.

³ Petrie, J C, *et al*, *British Medical Journal*, 1975, 4, 133.

⁴ Dollery, C T, *et al*, *British Journal of Clinical Pharmacology*, 1975, 2, 185P.

⁵ Erikssen, J, and Jervell, J, *Acta Medica Scandinavica*, 1975, 198, 49.

Power, democracy, and the NHS

SIR,—Mr Rudolf Klein's remarks (29 May, p 1352) represent, no doubt, the "political" facts at present. Nevertheless, present trends will eventually have to be reversed.

Hospitals exist basically as places where doctors may treat patients. Doctors are the only essential staff; all others are there merely to take some of the burden off them. Nurses, physiotherapists, laboratory technicians, cooks, cleaners, etc, would not exist without the work created by doctors, however much they play at being professionals in their own right. A doctor could nurse the patients, cook the meals, clean the wards, etc, but he or she is able to deal with more patients if these jobs are delegated to subordinates. I cannot think of any job in any department of a hospital which I have not done myself at some time, and this applies to many other doctors.

A fair comparison is with an author. At first he types his own manuscripts, hawks them round publishers, and wrestles with the financial aspects of his work. Later, if successful, he can pay a typist, a literary agent, and an accountant. But the author is the one essential person whose views should carry overriding weight.

CYRIL G EASTWOOD

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Restriction of right to prescribe

SIR,—It is with absolute horror that we note the Medical Practitioners (Restriction of Right to Prescribe) Bill is to have its second reading.¹ How can "a small list of relatively safe, innocuous substances" be drawn up? Any drug that comes under this heading is not likely to be very effective anyway. The general practitioner and hospital consultant cannot possibly be channelled into a situation where they could not make a decision what to prescribe for a particular patient. There is only one person who will suffer from this and that is the patient himself. There will also be many thousands of frustrated doctors looking elsewhere to practise.

Regarding "medical audit panels," what on earth are two non-professional members doing on the panel? We might just as well have two doctors on a panel reviewing the work of a bank manager or engineer. No—all this is just another example of socialism gone mad to the detriment of the patient again.

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J H SCOTSON

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¹ *Hansard*, House of Commons, 5 May 1976, col 1320.

Shortage of British graduates

SIR,—Where have all the British medical graduates gone and why? Not exactly a new

question, I know, but in our case there is a new twist.

This practice is losing three principals in six months because of retirement, but because we cannot replace them with suitable home graduates (in addition to one already recruited from India) we are in danger of having to close our central premises and leave 5000 patients to be looked after by whoever the family practitioner committee can find—possibly indeed by someone we have already turned down. All this in spite of the fact that we have planning permission to build new central surgeries. The only two suitable candidates we interviewed had a wide selection of practices to look over and were naturally able to pick and choose. (I don't object to this.) Several other doctors in the area are retiring at the age of 60, so our problem—that is, having to close down—may not be unique.

The BMA should mount an urgent inquiry to find out how many British medical graduates have gone abroad to settle and why they have done so. Then we may be able to find out how to keep them at home. My own guess is that they have watched the bully boys with industrial muscles getting what they want and they have watched the general sloth of the population as well, with ever-increasing frustration. These two factors have prevented the production of the wealth necessary to pay for the replacement of the breakdown and inadequate medical facilities which exist all over the country. Having heard or seen what is available abroad we cannot blame them for departing.

Within the next ten days or so we must decide finally whether to close the practice, which has served this area well for 50 years. So I finish as I began, where have all the British medical graduates gone and why?

GEORGE W FORREST

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Birmingham meeting on Health Services Bill

SIR,—The report of the Birmingham Town Hall meeting (29 May, p 1351), omits any mention of speeches from the platform by BMA Council member Dr Mary White and Birmingham Representative Dr Peter Jones.

My disquiet as Birmingham divisional secretary is that Scrutator, after stating that the hall was filled with 300 West Midlands doctors of all disciplines, failed completely to mention the speeches of the W Midlands Regional Council member and the Birmingham GP Representative to the ARM. This is not only a misrepresentation of the wide base of the meeting but an undesirable failure to appreciate the essential need for all branches of the profession to hold together and to appear in public to be co-operating in the defence against the present onslaught against the freedom of the profession.

G A READETT
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* * * Scrutator writes: "Owing to limitations of space my report on the stimulating Birmingham meeting was in no way intended to be comprehensive. I regret if I seemed to have ignored the high quality of the speeches by Dr White and Dr Jones, whose hard work for the BMA I would like to acknowledge here."—Ed, *BMJ*.