interest in the "big wide world" suggests that the reviewer cannot have noted the amount of useful public work done, of the great moral courage shown by one fellow at least, and that he is unaware how many of the fellows took a sincere and helpful interest in the welfare of junior colleagues and students. Anyway, how many human beings are capable of widespread interests that are not spread thin?

Perhaps it is meant to be humorous to say that the biographies were written by fellows who are more or less alive? Does the reviewer never walk in the streets or travel by public transport and note the faces around him that he can make the somewhat tasteless remark on the looks of the fellows? And what does he know of their cultural and philosophical interests except that in only a few cases have these been mentioned? A strange review indeed.

M PICKFORD

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Shortage of anaesthetists

SIR,—The letter from Mr P Dawson-Edwards and Dr M E H Barrow (11 June, p 1531) highlights the growing shortage of anaesthetists in Britain and I have no doubt that the difficulties of central Birmingham are shared by many other hospitals. This shortage will worsen, yet the poor recruitment mentioned by them is only one of its several causes. As anaesthetists' activities have widened in scope to include preoperative assessment clinics, pain relief clinics, and involvement in the intensive care area the proportion of their time spent in the operating theatre has been correspondingly reduced. It is clear that a simple increase, or indeed maintenance, of their numbers cannot be engineered and that the amount of surgery performed in Britain will in all likelihood fall.

Internationally the reputation of British anaesthesia is justifiably second to none in the present day. Would this be impaired if nurse anaesthetists were introduced to anaesthetise, under the supervision of medically qualified anaesthetists, those patients whose health or operative procedure indicated that no undue risk was present? A partial delegation in this way of routine work would undoubtedly increase the efficiency of the anaesthetist and I would think would probably increase the appeal of the specialty.

J L CRAVEN

York District Hospital,
York

SIR,—Mr P Dawson-Edwards and Dr M E H Barrow (11 June, p 1531) have highlighted a problem which we feel even more acutely in Northern Ireland. The combination of dissatisfactions they list, with the addition of political uncertainties, have led to the emigration of some 30 consultant and senior registrar anaesthetists in recent years. In our hospital group, which has over 1500 beds, because of too small an establishment of consultants coupled with sickness, unreplaced retirements, and holiday leave 160 operating sessions will be cancelled in July. When some of our consultants requested permission to carry leave from one year to the next in an effort to maintain a service we received only grudging consent from the area board.

At district level more interest is shown in minor economy than in employing sufficient

nurses to provide an adequate service, particularly at night. It appears to be cheaper to employ full-time rather than part-time nurses to cover the same number of sessions, and the latter are having their applications refused. This led to our having only one trained nurse to man our postoperative recovery ward on a recent take-in night. I have no doubt that eventually we will solve most of our problems, but in the immediate future we will have difficulty in providing a reasonable service to our community.

J P ALEXANDER

Division of Anaesthesia,
Belfast City Hospital,
Belfast

SIR,—The letter from Mr P Dawson-Edwards and Dr M E H Barrow (11 June, p 1531) on the severe lack of anaesthetists in the United Birmingham Hospitals is very disquieting. Even more disquieting is the alleged attitude of the area, and I suggest that the very use of the term "the area" indicates the root of the problem. Surely the administrator(s) responsible for the understaffing should be named and in the event of morbidity or mortality arising as a result of a cancelled operation those names should be communicated to the victim or his lawyers.

To quote a famous author, "When a man knows he is to be hanged in a fortnight it concentrates his mind wonderfully." The knowledge that one is personally and publicly responsible for the lives of other people is probably not quite as effective but runs a good second. Administrators should not be allowed to hide behind anonymous terms such as "the area," "the region," or "the department." Since there is a current vogue for printing the names of chief administrators on hospital letterheads I suggest that these names be quoted more often in letters such as that of Mr Dawson-Edwards and Dr Barrow.

P A CASEY

Wohlen, Switzerland

SIR,—Mr Charles Langmaid (25 June, p 1665) is right to draw the attention of his fellow surgeons to the possible alternatives to general anaesthesia. Most surgeons today will have received little or no training in them and this should be remedied while there are sufficient anaesthetists left in Britain to pass on these "local" skills. These have become over the years largely the province of the anaesthetist, possibly, as Mr Langmaid says, owing to the "tendency of the anaesthetists to assert their indispensability."

Another simple method of local blockade which I witnessed many times in the USSR is the so called Vishnevsky technique. The surgeon injects structures before incision with 0.25% lignocaine. As much of the solution may be used as he wishes. Given a stoical patient, though not I fear the average member of a Western Embassy, it enjoyed a necessary popularity among the surgeons, if not their patients. Since those days of 15 years ago I understand that a crash training programme has enabled general anaesthesia to be more widely available in the Soviet Union.

Perhaps others of your readers have wit-

nessed or used methods in countries devoid of sophisticated anaesthetic services which may be of use to NHS surgeons in the dark days ahead.

T R AUSTIN

Cardiff Royal Infirmary,
Cardiff

How effective is measles immunisation?

SIR,—We are pleased to read that a fourth report by the Medical Research Council Measles Vaccines Committee is shortly to be published covering a 12-year period (Dr Christine L Miller, 11 June, p 1532) and therefore detailed discussion on the efficacy of measles vaccination can await publication of this report.

However, two points should be made immediately. In a letter to us on the possible causes of immunisation failure Professor J A Dudgeon states that insufficient attention has been given to the storage of the dried measles vaccine and that even *before* reconstitution it is extremely thermolabile, a point also made by Dr J K Anand (11 June, p 1533). We find this puzzling. Our vaccine is always sent to us through the post, and we have confirmed that this is the normal method of distribution from the Cambridge and Bedford centres to local general practitioners. The manufacturers have told us that they also post the vaccine to these main distribution centres (first-class post on the first three days of the week). The vaccine then comes out of the refrigerator for the third time at the definitive immunisation session. The dried vaccine is therefore unrefrigerated for at least two periods of 24-48 h and is then further exposed for a variable time before reconstitution. In our own practice only single-dose ampoules are used and the vaccine is made up only immediately before use for a specific infant. Nevertheless, the unused dried vaccine goes back to the refrigerator for further use, although we now consider that this unused dried vaccine should be discarded as one would normally discard any excess reconstituted vaccine.

In a recent letter to us the manufacturers speak of a "three-day exposure limit" for Mevilin-L above 20°C and that the vaccine "can deteriorate rapidly when stored at temperatures above 10°C." Clearly, in the circumstances concerning distribution of the dried vaccine from manufacturer to recipient outlined above there are likely to be some occasions when the former condition is not met and when the latter condition of exposure above 10°C will most certainly have occurred.

The second point concerns Dr Miller's preliminary comment that 10% of vaccinated children have lost immunity 12 years later. This raises the question of the production of a significant proportion of adults in the future not immune to measles, a new situation of our own making, unless of course the disease itself remains prevalent enough to top up their immunity when children, a contradiction in requirements. Perhaps the report will tell us if a second injection is needed. It is certainly to be hoped that it will give clear guidance on the avoidance of using low-potency vaccine. We await the report with much interest, not least because the role of immunisation seems to have stumbled as a medical topic from the mundane to the contentious and in dealing with baffled

and confused parents the general practitioner really appreciates the most expert guidance.

M D COULTER
B M JONES

Potton,
Sandy, Beds

Commitment to oncology

SIR,—We have followed with interest the correspondence in your columns resulting from the leading article entitled "Commitment to oncology" (2 April, p 864), and now feel obliged to enter into the controversy stimulated by the comments made by Professor K D Bagshawe (18 June, p 1597), which, far from "settling the dust" on the issue as he hopes, are more likely to inflame the situation.

It is Professor Bagshawe's astonishing statement that "radiotherapy has already diminished in relative importance and it no longer provides a suitable foundation for training all future oncologists" which is the one most likely to upset the majority of radiotherapists, although it is not clear whether Professor Bagshawe considers radiotherapy to have diminished in importance purely in its role in the training of oncologists or whether he applies this statement to the position of radiotherapy in the management of malignancy as a whole. On either count we very strongly reject this generalisation as being inaccurate and misleading.

Considering, firstly, radiotherapy's position in training, other correspondents (Mr W H Bond, 7 May, p 1214; Dr K E Halnan, 14 May, p 1280) have already referred to the scope of training available under the auspices of the Royal College of Radiologists, which is intended to provide total training in all aspects of the investigation and management of patients with cancer. It is quite correct and proper to consider the product of this training to be a "radiotherapist and clinical oncologist," but it would be wrong to suggest that such radiotherapeutic oncologists should have a monopoly in the use of drugs in cancer treatment. Yet if we accept that cancer treatment is a multidisciplinary problem requiring the closest co-operation between the various participants the introduction into the team of a new member (that is, the medical oncologist or cancer chemotherapist) would be better achieved with the help and guidance of that team. The future medical oncologist will need to have as great a degree of knowledge of the application of radiotherapy in cancer as the radiotherapist currently has of the application of drugs if he is to be able to offer his patients a high standard of care. Therefore, to ensure that his training is sufficiently broad-based and comprehensive, part of it will need to be under the direction of the radiotherapists in specialist centres.

The statement that "radiotherapy has already diminished in relative importance" is likely to mislead a lot of people by suggesting that radiotherapy has achieved all that it is capable of in malignancy, yet this could not be further from the truth. Radiotherapy is gradually being released from the bonds of "radioresistance" (a word which defies any meaningful definition) and more and more tumours previously regarded as "resistant" are being successfully treated by radiotherapists. The studies on neutron beams and radiosensitisers, as well as in fractionation and in the optimisation of radiotherapy, promise

much for the future, and indeed in disseminated malignancy one should not discount the use of total-body or half-body irradiation as an alternative to chemotherapy when systemic treatment is required. To work actively in these matters will protect us from the criticism that we only follow behind the advances of others.

Most radiotherapists are well aware that there are many avenues to explore in the application of radiation in the treatment of malignancy, but while suspicions and misconceptions exist between the radiotherapists and medical oncologists the cause of a team approach in cancer is unlikely to be furthered and surely the message to both is that neither should try to "go it alone."

R G B EVANS
I C M PATERSON
J M BOZZINO

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Breath, alcohol, and the law

SIR,—The reply to the question posed by Professor J P Payne and Dr D W Hill (4 June, p 1468) is that the results given in our paper were obtained by Dr A W Jones, who was working at the time as a research student under Dr T P Jones, with technical and theoretical advice from myself. We could not give a reference to his thesis because it had not been published when we submitted our paper for publication.

The statement by Professor Payne and Mr Hill that our results "do not differ substantially" from theirs cannot be supported. Comparison of the precision with which the blood alcohol concentration was predicted shows that in our case the standard deviation (SD) was 3.4 mg/100 ml and in theirs 6.2 mg/100 ml; if readings taken before the peak and those from subject 1 are excluded the difference between the results can be accounted for mainly by the difference in the characteristics of the two breath instruments used. Theirs had a "precision of $\pm 3\%$ " while ours gave an SD of 0.5 mg/100 ml on a standard 100 mg/100 ml equivalent alcohol-air mixture. In addition, their instrument¹ analysed the last 100 ml of a 500-ml breath sample while ours used a 0.25-ml sample taken after at least 2 l of breath had been discarded to minimise the "dead space" effect. As I mentioned in my previous letter (7 May, p 1216), the dead space effect is the main reason why breath analysis cannot exactly reflect the blood concentration. This issue is fully discussed in our paper, which is also available in a shortened and more accessible version.² The importance of a large discard volume has been recognised by other workers.³⁻⁵

The instrument that we used, known as the "gas chromatograph intoximeter," has been available since 1969⁶ and has been used for police work in other countries.¹

In view of the legislation pending on the Blennerhassett Report it is unfortunate that Professor Payne and Mr Hill's paper, which is the most recent to appear in a British scientific journal, should condemn breath analysis on the results obtained with an out-of-date instrument, with an inferior analytical performance, which is not really suitable for breath analysis and is quite unsuitable for field use.

I can only repeat what I said in my last letter—that the time for laboratory studies has passed. A final judgment on the role of breath

analysis in medicolegal practice must await the outcome of operational studies with equipment suitable for police use.

B M WRIGHT

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- ¹ Allobaidi, T A A, and Hill, D W, *Journal of Physics*, E 1975, 8, 30.
- ² Wright, B M, Jones, T P, and Jones, A W, *Medicine, Science, and the Law*, 1975, 15, 205.
- ³ Penton, J R, and Forrester, M R, *Proceedings of the 5th International Conference on Alcohol and Traffic Safety*, p 79. Freiburg, H F Schutz Verlag, 1969.
- ⁴ Harris, L S, Hodnett, C N, and Mullen, J B, *Proceedings of the 6th International Conference on Alcohol, Drugs and Traffic Safety*, p 561. Toronto, Addiction Research Foundation of Ontario, 1975.
- ⁵ Dubowski, K M, *Clinical Chemistry*, 1974, 20, 294.
- ⁶ Noordzij, P C, *Proceedings of the 6th International Conference on Alcohol, Drugs and Traffic Safety*, p 553. Toronto, Addiction Research Foundation of Ontario, 1975.

*.*This correspondence is now closed.—Ed, BMJ.

MRC treatment trial for mild hypertension

SIR,—An important aspect of any anti-hypertensive drug trial is the amount of attention given to associated risk factors for coronary heart disease. The risk in severe hypertension is that of cerebral haemorrhage, cardiac failure, or renal failure, whereas in those with mild to moderate hypertension it is mainly that of accelerated atherosclerosis. It follows that in the second group just as important, or more important, as controlling the blood pressure is explicit advice on diet and persuasive advice against smoking.

In Japan it has been shown that owing to a "healthy" diet and low plasma cholesterol levels hypertension, unless severe, matters little even in smokers. In the Framingham study in the USA it has also been shown that moderate hypertension has no adverse effect if lipid levels are not raised.

Dietary advice in the UK has now been recommended for the population as a whole by two working parties and is particularly important for those at high risk, which must include all hypertensives. This creates a major additional problem for those engaged in trials because acceptance of advice depends not only on its content but by whom and in what manner it is given. Unavoidably, more variables are introduced. Presumably it would be thought unethical to omit these aspects from the control group as well as those receiving antihypertensive drugs.

RICHARD TURNER

University of Edinburgh

Severe thrombophlebitis with Praxilene

SIR,—I read with interest the paper by Mr C A J Woodhouse and Mr O G A Eadie (21 May, p 1320) on the incidence of thrombophlebitis after infusion of naftidrofuryl oxalate (Praxilene). We have been assessing this drug in patients with severe rest pain over the past two years and have so far given it to 35 patients. There has only been one incident of phlebitis and this occurred on the third day during intermittent infusion via a Venflon intravenous cannula, which was left in situ during the period of treatment.

The authors state that it is recommended that the drug should be infused over two hours with 200 ml of dextrose, dextrose saline, or low-molecular-weight dextran, but in the