British vaccines should be subjected to a similar investigation without delay, to avoid terminations as a legally defensive measure on the part of the gynaecologist.

Furthermore, no women of childbearing age should ever be vaccinated without clear laboratory evidence that they are non-immune. Only a very small proportion (possibly 15%) of the population requires vaccination and in these cases a long-acting, injectable contraceptive might be indicated.

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Coal-mining and mortality

SIR,—Your well-balanced review of coal-mining mortality (10 November, p 1168) encourages me to complete the picture with some unpublished data.

The 20-year follow-up of a random sample of the male population of Staveley has been successfully completed. The mortality of the 149 "pure" miners (categories 0, 1, 2, and 3) was 66%, as compared with a mortality of 71% amongst the 80 "non-dusty" workers. It is therefore becoming likely that the standardised mortality ratio of working miners in general is about 80 and that of miners and ex-miners about 100. This would make the Rhondda Fach the odd man out.

The only hypothesis put forward to explain the difference between Staveley and the Rhondda Fach was that of differential migration,¹ but recent work at the MRC Epidemiological Unit has rendered this very unlikely. We are now working on an alternative hypothesis.

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¹ Cochrane, A L, and Higgins, I T T, *British Journal of Preventive and Social Medicine*, 1961, 15, 1.

Audiological consultantship—a sinecure?

SIR,—It is very sad that the only way doctors can apparently be attracted into the specialty of audiological medicine is by cynically suggesting that it is a quick way to a consultantship (10 November, p 1231). The welfare and rehabilitation of the deaf in this country have long been neglected, mainly because those who should have given the lead—the ENT surgeons—have generally not been interested. This is hardly surprising since someone who is interested in surgery or in medically treatable problems is unlikely to be also interested in social work with the deaf or in hearing aids. Once hearing therapists are appointed in the NHS they will not be happy working with an audiological physician who is primarily interested in an easy way to a consultantship.

Dealing with the geriatric deaf requires a lot of commitment and is very demanding. Schemes where voluntary workers visit the housebound deaf and service their hearing aids are badly needed; who is going to organise these and refer patients to these schemes? The team leader has to create new work and break new ground, and not be looking for the easy way out and simply discharging patients with intractable deafness or prescribing hearing aids without follow-up, as tends to happen at present. In any hierarchical set-up enthusiasm

has to percolate from the top downwards: it is here that the basic standard of care is necessarily set.

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Inhalation of formaldehyde vapour

SIR,—You state in a reply to a question (29 September, p 778) regarding inhalation of formaldehyde vapour, "Assisted exhaust ventilation may be needed if susceptible individuals must work in a formaldehyde-contaminated atmosphere."

I would hope that no individual works in an atmosphere containing formaldehyde. The threshold limit value (ceiling) of formaldehyde in air is 2 ppm (3 mg m⁻³) at 25°C, 760 mm Hg.¹ This is a concentration that should not be exceeded even for an instant. It is not a time-weighted average or the short-term exposure limit. I am quite sure that Health and Safety Executive officials would take a very dim view of staff working in conditions where they inhale formaldehyde.

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¹ Health and Safety Executive, *Threshold Limit Values for 1977*, EH-15-77. London, HMSO, 1978.

* * * Our expert writes: "The question was about the harmful effects of formaldehyde (and xylene) and was answered on that basis. It was not a question about the views of the Health and Safety Executive officials, whose interpretation of health does not necessarily accord with demonstration of a pathological process. In a perfect world there would be no formaldehyde in the atmosphere, but in practice intermittent contamination is likely during certain manoeuvres. No harm will come except to susceptible individuals, who would be wiser to seek alternative employment. A balance must be kept between proper caring for staff and wasteful expenditure on measures to protect staff against non-existent or negligible risks. The money would be better spent on the sick, whose needs are established and not yet fully met."

Guar crispbread in the diabetic diet

SIR,—Drs M Cohen and F I R Martin (3 March, p 616) reported failure to confirm the utility of guar as an adjunct to diabetic treatment. While they indicated that this could be explicable on the basis of a difference in type of patient from those in which Dr D J A Jenkins and associates (23-30 December 1978, p 1744) had demonstrated a beneficial effect, Drs Cohen and Martin suggested the need for confirmation by careful long-term studies. The Jenkins group (Dr T D R Hockaday and others, 19 May, p 1353) replied by suggesting that if guar was not added properly to the diet it would not be fully effective—the gel-forming fibre had to be in the food, not just on it.

Yet I found some disturbing aspects about the original reports by the Jenkins group. There were several numerical discrepancies in the data. In large part the reduction in mean urinary glucose output, from 583 ± 150 mmol (105 ± 27 g)/24 h to 322 ± 61 mmol (58 ± 11 g)/24 h, was due to a single patient, who showed a decrease from an unusually

high value of 1681 mmol (303 g)/24 h to 477 mmol (86 g)/24 h. Further, that patient had been below average in terms of urinary glucose concentration before taking guar, with a concentration of 27.7 mmol (0.49 g/100 ml) compared with the average of 61.0 mmol/l (1.10 g/100 ml) for six patients. In fact, at a concentration of 27.7 mmol/l the patient would have had to void 61 litres of urine in 24 hours to achieve a total urinary glucose output of 1681 mmol.

If it is the long-term effects of guar administration which are of principal value, the results of Dr Jenkins and his colleagues were unsatisfactory, being based only on final determinations. The six patients on long-term administration had durations ranging from five to 11 weeks. No report was made of their progress during the course of guar administration or at comparable times during that course. No objective rule was stated about when treatment was to cease and final measurements were to be taken. One could readily bias the results of a study of this nature simply by declaring treatment to cease for a patient whenever that patient showed a desirable response, even if only by chance. To guard against such a doubt, we should be told the entire course of the results for each patient and also the rule for saying when the study was ended for each patient.

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If I was forced to cut

SIR,—During the past few months the *BMJ* has published several articles by a special correspondent called "If I was forced to cut," which have all more or less been themes on the same melody. In my opinion this basic melody is written in a false key and, although I am not qualified in national economics, may I be allowed to express a few reflections?

Shortening the length of hospital admission will certainly result in a higher turnover, which may reduce and perhaps even eliminate the departmental waiting list. As empty beds cost approximately the same as full beds, an economic saving can result only if departments are closed down or restructured and staff dismissed or transferred. I find it hard to imagine how consultants can be encouraged to carry out such reforms, especially as any financial saving may be more apparent than real when other departments are obliged to take staff they neither need nor want or the ranks of the unemployed are increased.

Although early discharge may be imagined to reduce hospital costs, it ought not to be forgotten that at the same time it may increase costs outside the hospital service. District nurses, home helps, and general practitioners all cost money, as do the few days' absence from work which the patient's husband, wife, relative, or friend might consider advisable.

Reduction in administrative personnel both at a local and at a central level seems to be a commonly played theme but the consequence of reduction has hardly been discussed. Redundant staff can be transferred, in which case other departments will become over-staffed and exceed their budget. They can be slowly reduced by not replacing staff who retire. This will mean fewer jobs in the service, which in turn will increase un-

employment as well as causing discontent by arrest of promotion. Finally, superfluous staff can be dismissed with an obligatory increase in the unemployed.

A more penetrating analysis suggests therefore that many of the measures described by your special correspondent would help the Health Service finances only by tipping over expenses to other governmental or private organisations and would have little effect, if any, on the total national economy.

How then can money be saved? As I see it there are two methods which would give a considerable saving. The first is to reallocate available resources to departments which are economically essential—for example, rehabilitation aiming at a return to employment—from those which are not—for example, geriatric medicine. Such methods may be socially unacceptable if carried to extremes and politicians will find the tightrope they have to walk may have a noose at the end. The second method is to restrict sick pay for those in hospital, the portion withheld from both National Health and private insurances being paid to the hospital authorities. This would save money, encourage patients to accept early discharge, and perhaps give meaningful employment by its administration and collection to the maligned unproductive civil servants.

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Hypercalcaemia after tamoxifen for breast cancer

SIR,—The suggestion that hypercalcaemia after tamoxifen may be a sign of breast cancer response is unwarranted on the evidence produced by Dr A H Villalon and others (24 November, p 1329).

Only one of the four patients (case 1) definitely showed a response to tamoxifen alone, and two patients (cases 2 and 3) exhibited very unimpressive rises in serum calcium concentration. Such slight rises are commonly seen as part of a temporal variation in patients with a tendency to hypercalcaemia, in which rises and falls occur in response to homeostatic mechanisms and degree of hydration. At least one patient (case 1) had preceding vomiting which, through dehydration, may itself have precipitated hypercalcaemia. Case 4, in addition to tamoxifen, received combination chemotherapy, and the latter may have been responsible for the tumour response, let alone dehydration through nausea or vomiting.

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Resuscitation of the newborn

SIR,—Dr H B Valman's article on neonatal resuscitation (24 November, p 1343) was interesting and his emphasis on effective ventilation rather than medication with bicarbonate and other drugs is important.

I am, however, disturbed that he advocates ventilation using a Penlon bag via an endotracheal tube. The Penlon bag was designed for use with a face mask and, although it has pressure-limiting valves, when used with a mask it has the additional safety valve of

oesophageal opening with pressure peaks. Dr Valman rightly stresses that pressures in excess of 30 mm of water should not be used on an endotracheal tube, but the Penlon bag can easily exceed these pressures with enthusiastic squeezing. This can be readily demonstrated by connecting the Penlon bag to a sphygmomanometer, when pressures of 100 mm of mercury can be reached with ease. At these pressures (equivalent to 135.5 cm of water) the danger of pneumothorax is obvious.

I would suggest that it is hazardous to use this device on an endotracheal tube. An alternative form in use in the Vickers Resuscitaire is more suitable. A lift-off relief valve and aneroid pressure barometer is a simple and safer alternative and is the principle used in some designs of neonatal ventilator.

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SIR,—May I offer a few comments on resuscitation of the newborn (24 November, p 1343)?

There should be much more emphasis on the use of a facepiece and oropharyngeal airway for positive-pressure ventilation with oxygen in the first instance. Most of the time this will be all that is needed to oxygenate the baby and start normal respiration. Oxygen is vital, not just useful. One breath of oxygen is worth five breaths of air in this situation.

The size of endotracheal tube should be 3.5 mm at the least, unless the baby is excessively premature. It should not then be possible to pass the tube right through the larynx with the attendant risk of intubating one bronchus. A tube of less than the proper size can cause almost total respiratory obstruction, and if a suction catheter is inserted into the tube there is great risk of sucking the baby's lungs flat. Incidentally, the illustrations showing an endotracheal tube in position in the larynx are seriously misleading, as the scale is quite inaccurate, though the appearance of the glottis as seen from above is well shown.

My experience of obstetric anaesthesia over many years suggests that, with modern obstetric care and modern anaesthesia, intubation of the newborn is not very often needed—perhaps one case in five, or less. And the risk of the inexperienced intubating the oesophagus, and not recognising the fact, is considerable and often fatal. Midwives can easily learn positive-pressure ventilation by facepiece and airway, and so avoid the need for more skilled and hazardous methods in most cases.

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Accident and emergency services

SIR,—As one of the first senior registrars appointed in accident and emergency in Great Britain, I would like to comment on the article "How should accident and emergency departments be run?" (27 October, p 1051). As your special correspondent rightly pointed out, controversy continues about who should run accident departments, and how far the emergency care of the patient should be under the control of the accident consultant or handed over to his specialist colleagues.

Having obtained a suitable postgraduate qualification (in my case a surgical fellowship) and now completed three years as a senior registrar in accident and emergency, I am amazed how anyone who has not completed at least this amount of specialist training can contemplate taking up a consultant post in accident and emergency. The reasons for having a specialist consultant are to my mind straightforward. It is mainly that with his varied clinical experience he will be able to deal with any problems his junior staff have with the diagnosis and management of patients. This will occasionally save a patient's life, and almost certainly save patients inconvenience and possible complaints against the hospital. The importance of making the correct diagnosis in the accident situation cannot be overstressed with the general public becoming increasingly litigation conscious. How can anyone who has not worked in an accident department at the senior registrar level and, more important, rotated through various specialised subjects have the confidence that he will be able to do this? And yet, as your article points out, it is hoped to appoint 250 accident consultants, but to consider asking for a maximum of 30 senior registrars. Where are the remaining consultants to come from?

My fear is that they will be made up by appointing registrars and senior registrars who, for one reason or another, have not made the grade in their own specialties. If this occurs it will be a disaster for the accident service in Great Britain. The current advantage of the senior registrar training programme is that one is required to rotate to specialist units and one is able to see only too well the problems of diagnosis and referral that occur. Just as one would not consider appointing a consultant in general surgery or orthopaedics who had not served an adequate time as a senior registrar, so the future accident consultant should be required to complete an adequate senior registrar training.

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Multidisciplinary teams

SIR,—Your leading article "Who carries the can?" (17 November, p 1245) is most welcome. It emphasises the merits of the old hierarchical system of team management, which are still absolutely fundamental to good medical practice. It refers to Drs James Appleyard and J G Maden's criticisms (p 1305) of multidisciplinary teams, as constituted in adult and child psychiatry. Their statement that the multidisciplinary system has eroded clinical care in geriatric medicine may be applicable in England; but it certainly does not apply in Scotland.

Here in Tayside (where the first consultant in geriatric medicine in Scotland was appointed in 1951 and where the first university department of geriatrics in Britain was created in 1961 within St Andrews University) the system of weekly ward case conferences working as a multidisciplinary co-ordinated team, whose leader is the consultant in geriatric medicine, has been in constant use in both Dundee and Angus districts for nearly a quarter of a century. Our system has been