should not be given to those who have been exposed to an infectious disease. Measles being an infectious disease, it would seem that Dr Valman would not advise vaccination against measles in a household where one member of the family has already developed measles. I would have thought that a case could be made out for vaccinating exposed children in the hope of producing vaccine-induced immunity which might prevent the wild virus from spreading. The views of immunologists are sorely needed.

(3) Dr Valman advises against rubella immunisation in children with personal or parental history of fits. The two British manufacturers of rubella vaccine do not mention this "contraindication" in *Data Sheet Compendium 1979-80*. Nor have I seen any published evidence in favour of Dr Valman's view.

Dr Valman's paper should be regarded as an excellent introduction to the subject. But, prior to conducting immunisation work, one should study the Chief Medical Officer's letter (CMO(77)7), which was sent out to all GPs, and the manufacturers' data sheet. An immunisation policy should be considered flexible, and where it conflicts with the needs of an individual patient the policy should be ignored in favour of a tailor-made plan for the particular individual.

J K ANAND

Cambridgeshire AHA(T),
Peterborough Health District,
Peterborough PE1 1JH

SIR,—Dr H B Valman (3 May, p 1138) states that the common cold or "snuffles" in an infant is not a contraindication to immunisation. I would disagree with this. Although these symptoms are common and usually benign, they can also be the prodroma of some infectious diseases of childhood—for example, measles, pertussis. Should such an illness develop, possibly with cerebral complications (measles encephalitis, pertussis encephalopathy), it would be difficult to tell whether this were due to the vaccine or the already present illness. In these circumstances, even if the medical practitioner is convinced that the illness is not a complication of vaccination, most parents would be sceptical and would probably refuse permission for further immunisation—of any kind. Surely it is better to wait until the child is symptom free and immunise at a later date.

I also note that at 4½ years Dr Valman recommends giving pertussis vaccine. I should be interested to know the rationale for this as it is not in the standard schedule as recommended by the DHSS in the UK.

SHEILA J WEBB

Birkenhead, Merseyside L43 9ED

SIR,—There seems to be disagreement about the antigenic effect of intradermal tetanus vaccine. Can Dr H B Valman assure a good antigenic response to this (3 May, p 1138) attractive alternative?

R H HARDY

Accident and Emergency Department,
General Hospital,
Hereford HR1 2PA

SIR,—I welcome the article "Contraindications to immunisation (3 May, p 1138) in so far as it underlines the need to select children

carefully for immunisation. One aspect which I fear may cause some confusion, however, concerns BCG vaccination. Although this is not included in the table of schemes for immunisation, it is referred to in the accompanying text. The implication is that direct BCG, without preliminary testing, is given at the ages of 5 and 13, and no mention is made of the necessity of carrying out a preliminary test such as the Heaf or Mantoux. I should also be interested to know who has advocated giving BCG vaccine at the age of 5.

ALUN LLOYD-JAMES

Hereford and Worcester AHA,
Worcester WR1 3BZ

SIR,—I attempted to provide an account of the contraindications to immunisation which could be easily understood and included the latest views of experts.

The Committee on Review of Medicines suggested that contraindications to rubella vaccine should include a history of convulsions or a parental history of epilepsy (non-traumatic). This information has not yet been published elsewhere. As the discussions are still continuing I have deleted these contraindications from the book *The First Year of Life*, which will be published shortly. In an effort to simplify the text I omitted to note that measles vaccine can be given within three to four days of exposure to measles. This will be included in the book.

Fluid tetanus toxoid causes fewer reactions but a milder antigenic response than adsorbed toxoid. It is now generally accepted that children who develop reactions to tetanus toxoid and require reinforcing doses should be given simple fluid toxoid intradermally.¹

A booster dose of pertussis vaccine about the time of school entry has been recommended in two recent publications.^{1,2} I agree that a preliminary tuberculin test is needed if BCG is given after the neonatal period. Various ages have been suggested for giving BCG.²

H B VALMAN

Northwick Park Hospital
and Clinical Research Centre,
Harrow, Middlesex HA1 3UJ

¹ Dick G. *Immunisation*. London: Update Books, 1978: 29 and 145.

² Tyrell DAJ, Phillips I, Goodwin CS, Blowers R. *Microbial disease: the use of the laboratory in diagnosis, therapy and control*. London: Edward Arnold, 1979:305.

Prophylaxis against febrile convulsions

SIR,—It would be interesting to know the basis for the statement by Drs Jennifer M Cowan and F Harris (19 April, p 1086) that a history of cerebral birth injury, current neurological abnormality, or prolonged convulsion should lead to a diagnosis of an epileptic fit precipitated by fever rather than that of a febrile convulsion. Even in the children most at risk of recurrent afebrile seizures by the age of 7 years, 90% do not develop epilepsy.¹ Sodium valproate has been shown significantly to reduce the risk of recurrence after a "simple" febrile convulsion.² Nevertheless, we would agree that unless the child is aged less than 19 months, has a positive family history, or is neurologically abnormal long-term anticonvulsant prophylaxis is not indicated after a single short generalised fit. Intolerable side effects occur in 20-25% of toddlers placed on

phenobarbitone. Thus in 75-80% phenobarbitone is an acceptable anticonvulsant. We do not advocate indiscriminate treatment for all children, but suggest that where the recurrence risks for febrile fits are high valproate is an effective alternative to phenobarbitone.

Dr D P Addy (19 April, p 1086) has failed to note that 22% of the 1706 children with febrile seizures in the American cohort were neurologically other than normal prior to their first fits.³ Needless to say, these children had persisting neurological deficits.

SHEILA J WALLACE
J ALDRIDGE SMITH

University Hospital of Wales,
Cardiff CF4 4XW

¹ Nelson KB, Ellenberg JH. *Pediatrics* 1978;61:720-7.
² Ngwane E, Bower BD. *Arch Dis Child* 1980;55:171-4.
³ Nelson KB, Ellenberg JH. *N Engl J Med* 1976;295:1029-33.

Screening for the small-for-dates fetus

SIR,—Dr J P Neilson and others consider that the most effective screening index for small-for-dates fetuses is the product of crown-rump length and trunk area (17 May, p 1203). On the figures that they have given I would disagree with this.

A test will identify a small-for-dates fetus by giving a positive result. If the test is done on many mothers a number of fetuses will thus be identified. This number will consist of a mixture of true- and false-positives. The test is identifying small-for-dates fetuses most effectively when the ratio of false-positives to true-positives is a minimum. For crown-rump length $\times$ trunk area this ratio is 0.128, whereas for crown-rump length $\times$ trunk circumference it is 0.101. Thus the latter parameter will identify small-for-dates fetuses more effectively.

The prevalence of small-for-dates fetuses in the sample reported in the article was $36/474 = 0.076$. The probability that a positive result will be a true-positive at this prevalence is 0.39 for crown-rump length $\times$ trunk area and 0.45 for crown-rump length $\times$ trunk circumference. Thus use of the latter parameter for the identification of small-for-dates fetuses will lead to less unnecessary intervention.

Similar arguments apply to the reliability of negative results. The probability that a negative result will be a true-negative is greatest when the ratio of false-negatives to true-negatives is a minimum. The lowest such ratio calculable from the figures that the authors publish is 0.068. This is for crown-rump length $\times$ trunk area. Thus this is the most effective parameter for ruling out the diagnosis of small-for-dates fetus.

R H KLIPSTEIN

Whittington Hospital,
London N19

SIR,—In the difficult area of diagnosing the growth-retarded fetus the apparent accuracy of the screening schedule using two-stage ultrasonic examination reported by Dr J P Neilson and others (17 May, p 1203) is encouraging.

Recently at St Mary's Hospital, Manchester, we have been estimating the thickness of the fetal fat layer seen on antenatal x-rays,¹ comparing this measurement, expressed as the "fetal fat percentile," with the eventual birth weights of the babies. When carried out by an

experienced obstetric radiologist, the method has been found to be over 80% accurate in predicting light-for-dates babies in the cases so far reviewed.

It is therefore appropriate to x-ray those fetuses which are thought to be growth retarded, either on clinical assessment or following screening procedures, not only as a further method of confirming the diagnosis by estimating the "fetal fat percentile" but also to exclude gross abnormalities (for example, thanatophoric dwarfism² and severe osteogenesis imperfecta³) commonly associated with the small fetus.

G J LEWIS

Department of Obstetrics and Gynaecology,
St Mary's Hospital,
Manchester M13 0JH

¹ Russell JGB. *Radiology in obstetrics and antenatal paediatrics*. London: Butterworths, 1973:222.

² Maroteaux F, Lamy M, Robert JM. *Presse médicale* 1967;49:2519-24.

³ Felisaz GL. *Bulletin de la Fédération des Sociétés de Gynécologie et d'Obstétrique de Langue Française* 1963;15:656-7.

Cutting the cost of the National Health Service

SIR,—There has been a series of provocative articles in the *BMJ* about how to cut costs in the National Health Service.¹ Dr Maurice Pappworth has spread himself to the extent of 10 full pages in *World Medicine*.² And now we have Dr G N Marsh, (3 May, p 1140), a general practitioner, with his "bald list" of economies—and pretty feeble some of them are. Most vitriol, naturally, has been expended on the well-known and reckless profligacy of those overpaid elitists the hospital consultants, who are bankrupting the country. I do not mind being labelled an elitist (or a perfectionist either, Mr Ennals—remember him?): in fact, it makes me proud. But the way things are going I almost fear to leave the house.

The hospital service is the costly part of the NHS; it is an obvious Aunt Sally. If cuts are to be made that is where they will be made. The most expensive management decision ever taken in the NHS is to admit a patient to hospital. Who takes this decision? As often as not, it is taken by Dr Marsh and his cost-conscious fellow GPs. No one ever thinks to mention that.

Nor, when people rabbit on about how "cost effective" we ought to be (although how any illness can qualify for cost effectiveness is never satisfactorily explained), do they put their money where their mouths are. No one suggests that doctors should take a cut in salary, for example. The reverse, in fact. "More work—more pay," exclaims Dr Marsh, whose entrepreneurial genius does not extend to making one single attempt—not one—to quantify his alleged savings. "Prescribing from outpatient departments should be abandoned, and patients... told to see their general practitioner." The cost to the NHS of a drug prescribed by a GP is at least twice what it would be were it dispensed by a hospital outpatient pharmacy. There should be "earlier and earlier discharge (from hospital) or more surgical cases." All right: what happens to the vacated beds? Going to stay empty, are they?

Much of what Dr Marsh says is true and reasonable and sensible—self-evident, even. He is knocking on an open door. But does it not strike him that there are others of like views and of equal talent and goodwill? We are *trying* to cut costs; but we can only succeed if it is made crystal clear to us, in

detail, just what those costs are. But it never is made clear. This is why Dr Marsh cannot put actual figures to his savings. He does not know any figures. And neither do I.

Four years ago I begged the authorities—begged them—to estimate the cost of running our department of anaesthetics. Four years. And I am no nearer to finding out now than I was then. Why not? "It costs too much." I have asked time and again for a departmental functional budget. I still have no functional budget. Why not? "It costs too much." We have asked for a fixed percentage of the district's assets to be spent on equipment. We have been refused. My colleagues and I were reprimanded for being "grossly overspent" on drugs. As usual, no financial details were made available. The regional health authority's expenditure on drugs was 2.7% of its revenue budget. My colleagues' expenditure, it eventually turned out, was 2.76% of the district's revenue budget.

I sometimes feel that I am in a minority of one. Surely I cannot be the only person to perceive the reason behind these profitless and circular arguments about NHS costs? Their purpose is to obfuscate and distract attention from the real issue: the proportion of the gross national product devoted to health. Dr Marsh must be one of what we can only hope are the few, the very few, who actually glory in our pitiful rating at the bottom of the international league table. Perhaps he has been bamboozled by the academics and civil servants who lecture on King's Fund management courses. Whenever I point to this country's beggarly outlay on health, these persons always reply that more money would not necessarily improve the service. On the other hand, they never seem to follow this argument to its logical conclusion: perhaps we should be spending *less*. They never say that.

No. They never actually say it. But if you take the trouble to translate *Patients First* and its equally pernicious successor *The Future Pattern of Hospital Provision in England*³ you will see that this is what they really mean.

P V SCOTT

Division of Anaesthetics,
Bromsgrove General Hospital,
Bromsgrove, Worcs.

¹ Anonymous. *Br Med J* 1979;iii:905-6, 985-6, 1057-8, 1122-3, 1276-7, 1351-2, 1429-30, 1490-1, 1570-1.

² Pappworth M. *World Medicine* 1980;15:39-57.

³ Anonymous. *Br Med J* 1980;280:1335.

SIR,—Few would disagree with Dr G N Marsh's proposition (3 May, p 1140) that huge economies could be made in the NHS if doctors were to think more about their routines and rituals and improve their work methods. However, I profoundly disagree with some of his suggestions for saving money, and I would not wish them to pass without comment.

Change in public attitude—A major health education campaign would not only be an expensive waste of time, but in fact it would be dangerous. The early detection of serious illness depends on patients being encouraged to report their symptoms of what appears to them to be minor illness. Thus upper respiratory infections and diarrhoea may well be the first symptoms of a carcinoma of the lung and bowel. Patients should not generally be encouraged to cancel follow-up appointments because the doctor usually has a good reason for asking them to attend again, and it is not always appropriate to give reasons to the

patient. I am strongly in favour of his suggestion for acquainting patients with the real cost of their treatment.

Medication—I agree with all the points made. Many hospitals are now limiting outpatient prescribing to two to four weeks, but to be effective the system requires close co-operation between hospital staff and general practitioners. Routine night sedation is quite unnecessary for the majority of hospital patients. Similarly, vast quantities of antibiotics are unnecessarily prescribed by general practitioners, often in homoeopathic dosage, for patients with minor, self-limiting sepsis. There is no doubt that many patients are suffering from iatrogenic illness as a result of becoming dependent on inappropriately prescribed psychotropic drugs—barbiturates and diazepam to name but two types.

Outpatients—Early referral of hospital patients back to their general practitioners is admirable in theory, but would not work in practice. Patients who have had surgery for breast and bowel cancer, bone sarcomas, and many other cancers may be receiving cytotoxic drugs and regular follow-up for careful screening is of vital importance for such patients. Patients who have had prosthetic replacements for one or more joints need similar careful examination by a doctor with specialist knowledge. In general it would not work because I doubt if general practitioners would make it their business to ensure that patients received a regular check—they would undoubtedly wait to be contacted by the patients, when it might be too late to help them. Furthermore, unless there is a sudden change in working methods, patients who need a domiciliary visit (they would normally come to outpatients by ambulance) will be told to make their way to the doctor's surgery. House officers do not generally see follow-up patients. Automatic discharge of these patients would be most inappropriate; many will be shown to the consultant because of problems (he cannot see all of them), and in any case it is clearly important for registrars in training to have some continuity of patient care.

Accident and emergency departments—I agree, as we all do, that accident and emergency departments should be used only by patients with accidents or general emergencies. Would Dr Marsh please tell me how you stop patients walking in (these are the majority) who say they cannot obtain or have no faith in their own general practitioner? Under no circumstances can they be sent away without being seen or examined by a doctor. General practitioners in many parts of London cannot be obtained for most of a 24-hour period unless the patient goes through a complicated, tiresome, and time-consuming answering service; if immediate contact is not possible, or there is to be a significant delay (15 minutes or more), then a distressed and anxious patient must be free to obtain an emergency ambulance without the need for a doctor's request.

Inpatients—Early discharge of surgical patients is practised wherever possible, and this process has accelerated because hospitals at long last are being asked to live within their budgets; however, it remains the consultant's responsibility to make certain that the community services are of an appropriate standard. Sadly, in many parts of London the deficiencies are such that it would be unwise to release the patient until all possible risks of complications are eliminated, and the elderly patients living alone are totally independent. I must again trouble Dr Marsh and ask him to tell me