me with my current dilemma concerning a patient with a history of lithium toxicity with normal concentrations[2] who has recently been put back on lithium by local psychiatrists.

I question the assumption that an audit of patients taking lithium can reliably be based on those having blood tests. Surely the patients should have been identified by prescriptions for lithium preparations generated in local practices. Only one study that had done this is quoted; could the similar point prevalence of patients taking lithium be a coincidence?

My four partner practice was approached six months ago by the local psychiatric service, which asked if we would like to send any patients taking lithium to it as it was establishing a new lithium clinic. No possible benefits of this clinic for these patients were mentioned. I checked on our patients taking lithium. Only four were taking lithium regularly; in addition, two men had received lithium in the recent past for migrainous neuralgia, one with no benefit while the other had been relieved of his symptoms and his clusters of headaches had not returned. Of the four patients receiving lithium for manic-depressive illness, two were attending the psychiatric service and two were receiving their care in general practice. The patients attending the psychiatric service had last had their lithium concentration estimated 20 months and 12 months previously and those cared for within the practice three months and two months previously.

I realise that the numbers are small, but this audit coloured my practice's view of a lithium clinic. The clinic seems to be necessary to improve the care of the patients attending the psychiatric service, but the practice prefers to carry on seeing the two others as whole people rather than send them off to become "lithium cases."

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1 Kehoe RF, Mander AJ. Lithium treatment: prescribing and monitoring habits in hospital and general practice. *BMJ* 1992;**304**:552-4. (29 February.)
2 Spiers J, Hirsch SR. Severe lithium toxicity with "normal" serum concentrations. *BMJ* 1978;i:815-6.

Organ donation from intensive care units

SIR,—Sheila M Gore and colleagues suggest that kidney donation from intensive care units could be increased if there were a reduction in the non-performance of tests of brain stem function.[1] This assumes that patients who did not undergo formal testing of brain stem function were actually brain dead and suitable organ donors. We analysed our data collected during the confidential audit and cannot agree that there is necessarily an opportunity to increase kidney donation substantially in Britain.

Question 9 in the audit [was brain stem death a possible diagnosis?] was ambiguous and we suggest that some of the variability in the non-performance of testing may be due to differences in the interpretation of that question. For instance, we included all patients in whom brain stem death was a possibility, yet many of these did not undergo formal testing. One patient, for example, had had a prolonged cardiorespiratory arrest and had elective ventilation and subsequent laparotomy for a perforated viscus. Although she was comatose and apnoeic and might have had brain stem death, she died of hypotension due to septicaemia. A total of 122 patients died in our unit during the audit period; of these, 36 were classified as having a possible diagnosis of brain-stem death, although two patients were incorrectly categorised as a result of clerical errors. Only 15 of the 34 patients with a possible diagnosis of brain stem death had formal testing, and analysis of the data on the remainder shows that four were too old to donate organs on accepted criteria, three died within two hours of admission to the intensive therapy unit, and 12 had medical conditions which made them unsuitable as organ donors. All of these 19 were severely hypoxaemic, hypotensive, and resistant to treatment, or had active supportive treatment withdrawn once it was appreciated that they were unsuitable as organ donors. Consequently formal tests were performed in 100% of those patients who were suitable for testing and who were also potential kidney donors.

Although it may be possible to increase the number of organ donors from Britain's intensive therapy units, we suggest that the potential increase is modest and that the 25% reduction in non-testing suggested by Gore and colleagues may not be achievable.

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1 Gore SM, Cable DJ, Holland AJ. Organ donation from intensive care units in England and Wales: two year confidential audit of deaths in intensive care. *BMJ* 1992;**304**:349-55. (8 February.)

Morphine for pain in infants

SIR,—G K Gourlay and R A Boas's paper is a reminder of the danger of respiratory depression after the administration of opiates to infants.[1]

In recent years there has been renewed interest in analgesia for young infants. When neonates are referred to regional surgical units, to prevent discomfort in the ambulance it has become fashionable for junior paediatricians in the south east of England to give potent opiates. When these are given intravenously transfer is inevitably delayed while the immediate respiratory arrest is treated, but when they are given intramuscularly respiratory failure progresses relentlessly during the journey so that the infant arrives in a moribund state. Of 135 neonates referred to my care at one hospital since 1988, six have suffered severe depression of respiration or respiratory arrest as a result of this pernicious act of kindness.

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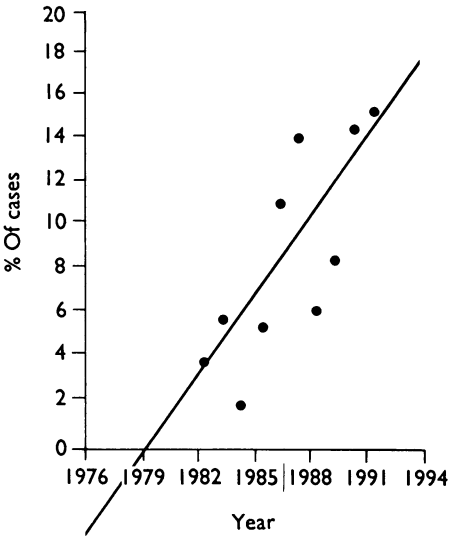
1 Gourlay GK, Boas RA. Fatal outcome with use of rectal morphine for postoperative pain control in an infant. *BMJ* 1992;**304**:766-7. (21 March.)

Measles, mumps, and rubella vaccine: time for a two stage policy?

SIR,—I strongly support Harden Carter and Dermot Gorman's views on the need for a two stage immunisation programme for measles, mumps, and rubella.[1] I recently returned from New Zealand, and the measles epidemic there is fresh in my mind.

Some 37% of the 9239 cases of measles reported in New Zealand in the second half of 1991 were among adolescents and young adults (that is, 10 to 19 year olds) and 6% of all cases were in those over 19.[2] Evidence suggests that failure to seroconvert or waning immunity, or both, contributed to the epidemic, particularly in these older age groups.[3] Largely as a result of this epidemic the Department of Health in New Zealand recently announced a two stage vaccination policy for measles, mumps, and rubella,[2] the second dose for all schoolchildren in form 1 replacing rubella vaccine for girls in form



Percentage of cases of measles in those aged 15 and over in Argyll and Clyde Health Board, 1982-91 (with least squares regression line)

1—the same regimen that Carter and Gorman advocate.

The case for a two stage policy is formidable, being based on epidemiological facts and principles and on the experiences of other countries that have had a high uptake of immunisation for longer than the United Kingdom and are experiencing an upward shift in the age distribution of patients.[4] The ever growing list of countries that have adopted the two stage policy makes the United Kingdom's position increasingly anomalous. Action must be taken soon if we are to defuse the "timebomb" of future epidemics of measles (and mumps) among adults[5] with the consequent higher morbidity.[6,7] Even now figures from Argyll and Clyde Health Board show the upward trend in the proportion of patients with measles aged 15 and over (figure).

The case for a two stage policy is, I believe, so strong that the Joint Committee on Vaccination and Immunisation should publicly give its reasons for not recommending the introduction of such a policy without delay.

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Missing women

SIR,—The registrar general's statistics for 1841 to 1890 show that between the ages of 10 and 34 females had a higher mortality than males. Though mortality from childbearing may have played a part, deaths from tuberculosis at that time accounted for between a quarter and a fifth of all deaths and mortality from tuberculosis was much higher in women than men between the ages of 15 and 30.

The higher mortality for females in countries such as India and China, discussed in Amartya