often made worse by the fear that society will suspect abuse of their child, particularly where no adequate cause of death can be detected at necropsy. Fortunately, recent research has now shown that some examples of previously unexplained sudden infant death may be due to a disorder of repolarisation of the cardiac impulse which can only be detected by an electrocardiogram taken before death.¹ To still the fears of some parents this fact could have been mentioned in the short report by Dr A M B Minford (14 February, p 521).

Could I also raise a word of caution in the interpretation of this mother's confession? Her baby presented with a metabolic acidosis and brain damage (irritability and generalised increase in muscle tone) suggesting severe asphyxia. More than 70% of 4-month-old babies have been reported to be able to breathe through their mouths when the nasal airway is occluded.² It may have been pertinent to test the ability of this particular infant to breathe through his mouth. This mother had suffered many serious problems before and after the birth of her baby. Knowing her disturbed state after the overdose of diazepam should her explanation be accepted without question?

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¹ Southall DP, Arrowsmith WA, Oakley JR, McEnery G, Anderson RH, Shinebourne EA. *Arch Dis Child* 1979;**54**:776-9.

² Shaw EB. *Am J Dis Child* 1970;**119**:416-8.

Comparison of neonatal management methods for very low-birthweight babies

SIR,—Dr T H Hughes-Davies has added further comments in the debate on methods of care for low-birthweight infants (17 January, p 224). We would like to correct some of his facts. Firstly, the figure of 22.1% mortality in Aberdeen for infants weighing 1000-1499 g cannot be derived from our data (29 November, p 1489). Secondly, recent mortality, which in the context of rapidly evolving techniques must mean in the last few years, has fallen even further. In Aberdeen in 1979 for infants of birthweight 1000-1499 g it was 12.1% and in 1980 7.9%.

We would, however, agree with his final point—that birth notifications should bear birthweights. We must then agree to divide our weight groups uniformly. The World Health Organisation supports the division of weight groups ---0 to ---9 g but the mathematical concept of the decade is ---1 to ---0 g. Disagreement on this point only compounds difficulties in interpretation of data between centres.

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Perinatal and neonatal mortality

SIR,—The view expressed by E B M Harding and others (6 December, p 1567) criticising some aspects of the Short Report¹ is correct. Tew² has produced detailed criticism of the lack of evidence and of reliable statistical interpretation on which the report rests. Furthermore, recent publications suggest that results of delivery in general practitioner

units compare favourably with consultant units when selection is correct. Taylor *et al* have produced the comparison of matched groups which was missing.³ Though the validity of comparisons in different geographical areas may be questioned their overall conclusions are compelling.

The report implies that GP units per se are hazardous and should be closed; yet in 1977 perinatal mortality in a sample of GP hospitals was 3.4/1000,⁴ and a recent survey by one of us (MSM) of all GP units in Devon showed a perinatal mortality of 4.4/1000. In view of these figures the probable consequences of large-scale closure of GP maternity units should be foreseen. The case for high-technology delivery of normal cases is far from proved, and many patients appreciate this.⁴ Unless a low-technology alternative form of delivery is available many will insist (as in the United States they now do) on their right to home confinement. At present we have neither the midwife, medical, or flying squad reserves to give adequate support to a greatly increased number of home deliveries.

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¹ Social Services Committee. *Perinatal and neonatal mortality. Second report from the Social Services Committee, 1979-80*. London: HMSO, 1980.

² Tew M. *Health and Social Services Journal* 1980;**90**: 1194-7.

³ Taylor GW, Edgar W, Taylor BA, Neal DG. *Lancet* 1980;ii:1287-9.

⁴ Cavenagh AJM. *Br Med J* 1978;iii:34-6.

⁵ Kitzinger S. *The good birth guide*. Glasgow: Fontana/Collins, 1979.

Late appearance of pneumothorax after subclavian vein catheterisation

SIR,—We have read with interest the correspondence which has followed our recent article on late appearance of pneumothorax following subclavian vein catheterisation (15 November, p 1339) and would like to comment on some of the points raised.

Drs A F Malins and M E Sinclair (3 January, p 73) suggest that pneumothorax following subclavian catheterisation is "uncommon" and of little importance, since "if a tension pneumothorax develops while the patient is being ventilated, it is relatively easy to treat." In support of these suggestions they refer to a series which contains 75 percutaneous subclavian vein catheterisations, of which three (4%) were complicated by a pneumothorax.¹ These three pneumothoraces were the only complications regarded by the authors as "serious" and one of them, which occurred in a patient being ventilated, was followed by a cardiac arrest. We consider that a potentially fatal complication which occurs in one out of every 25 procedures for vascular access deserves more serious consideration. The reporting of such cases can only serve to heighten awareness of the problem.

We agree with Mr J L Peters and Mr M Kurzer (31 January, p 400) that during subclavian vein catheterisation the needle should pass horizontally ("in the coronal plane"). We consider that their suggested use of ultrasound to localise the subclavian vein is worthy of a trial, especially in the heavily built patient, as Mr J Banciewicz and others (27 September, p 871) have suggested; but we agree with him that this technique seems unlikely

to reduce the incidence of pneumothorax. Four passes of the needle were required in our patient because she moved away from the needle as the vein was entered on the first pass. The added sophistication of ultrasound or of computed tomography scans would not have prevented the problem. Although virtually all our parenterally nourished patients have had a chest x-ray examination prior to subclavian vein catheterisation we do not consider this investigation necessary for the exclusion of a thoracoplasty or old clavicular fracture.

We note Mr Peter's and Mr Kurzer's objections to our use of the Vygon Nutricath S but consider that they have no substance. The Oxford parenteral nutrition team has used 86 of these catheters since May 1979.² The tunnelling technique made possible by the detachable hub¹ is far less traumatic than that described by Moghissi³ and we endorse Dr J M Cobbe's statement (31 January, p 401) that when the catheter and hub are correctly assembled they will not detach on traction. The analogy with through-needle catheters is spurious. None of our catheters, which have included several in place for over three months, has separated in use²; and this has been the experience of others.¹ In addition, our catheter sepsis and blockage rates have fallen significantly when compared with our previous experience of using polypropylene catheters, whether or not these were buried in the manner described by Mr Moghissi.

We will therefore continue to offer the therapeutic as well as the aesthetic and cosmetic advantages of this catheter to our patients.

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¹ Ross AHM, Anderson JR, Walls ADF. *Ann R Coll Surg Engl* 1980;**62**:454-8.

² Mitchell A, Draper C, Lee DR, Royal GT, Kettlewell MG. *Ann R Coll Surg Engl* (in press).

³ Moghissi K. *J R Coll Surg Edinb* 1979;**24**:178-9.

Hospital delivery

SIR,—I was shocked and saddened to read Charlotte Greig's Personal View (14 February, p 561) about her experience of hospital delivery, but would urge her not to jump to the hasty conclusion that the hospital experience of childbirth "is likely to be at best unpleasant." She was clearly very unfortunate in her "non-choice" of hospitals; in particular, the use of stirrups for an expected spontaneous vaginal delivery seems quite barbaric and out of line with modern obstetric practice. But not all hospitals are like that. Both my babies were born in hospital within the last three years; for my first delivery I had "the works"—a drip, pethidine, and an episiotomy; for my second none of these things. Both births were intensely happy experiences for me and my husband; the second, under the excellent care of my GP in our local hospital, was undoubtedly the more enjoyable of the two.

Hospitals like Mrs Greig's unnamed one give hospital delivery a bad name and encourage the demand for home delivery with its unpredictable risks. I hope that she will feel brave enough to have another baby, in a more enlightened hospital, and would be surprised if she did not find the experience very different indeed.

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SIR,—I am sorry that Charlotte Greig (14 February, p 561) had such an unfortunate time