the syndrome may be widespread within that continent and hence readily confused with poliomyelitis.

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Polio immunisation for children before going swimming

EDITOR,—David Isaacs's response to a question on immunising children before they are taken swimming¹ is in part helpful, but in part is illogical. I wholeheartedly agree with his advice that children should be allowed to go swimming in public baths whatever their polio immunisation status. I also agree that "recommendations on swimming in the sea should reflect local levels of pollution." However, I would base this on the risk of developing a bacterial illness. I know of no cases of polio acquired in this way. Moreover, the protection against type 3 poliovirus varies from 76% to 98% after the second dose, depending on the study.² Logic requires that either there should be no restriction in terms of vaccination status or children should be required to have all three doses of the primary course before swimming in polluted waters.

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Women's preference for place of birth

EDITOR,—Martin Johnson and colleagues surveyed pregnant women and report that only 8% said that they would prefer to have their labour at home.¹ They acknowledge that their sample was biased and that results cannot be extrapolated to predict the number of women nationally who would choose a home birth.

There are other difficulties in finding out about preferences. The Institute for Social Studies in Medical Care has carried out several surveys based on national samples to find out the views of those using maternity services.² In our experience preferences are difficult to study because they are not usually based on experiences of the possible alternatives: women tend to "prefer" whatever type of care they have had. One of our studies found that 91% of the women who had had their last baby at home said that they would prefer to have their next baby at home, compared with 15% of those who had had their baby in hospital.³ Among the few women who had experienced both a home birth and a hospital birth 76% preferred the home birth.⁴

In our most recent surveys of maternity services, in 1984 and 1989, only 1% of the women sampled had experienced home births. Realistic comparisons of preferences will be possible only when more women give birth at home.

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- 1 Johnson M, Smith J, Haddad S, Walker J, Wong A. Women prefer hospital births. *BMJ* 1992;305:255. (25 July.)
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EDITOR,—I was surprised that, although Martin Johnson and colleagues found that 8% of pregnant women using two hospital antenatal clinics in Leeds would prefer to have a home birth, they concluded that this was not evidence of "considerable unmet demand for home birth."¹ As currently fewer than 1% of women have a planned home birth, this shows that in Leeds only one in eight women who would like to have a home birth actually manages to arrange one. By anyone's standards that is surely a considerable shortfall. The needs and wishes of these women are simply not being met.

The actual number of women, however, who might choose a home birth if the opportunity was offered is, not surprisingly, relatively small. The current generation of childbearing women has grown up in a climate in which childbirth has become anonymous with hospital and medical management.

Finally, to correct misinformation in Johnson and colleagues' letter, the select committee on maternity services did not advocate more women having their babies at home.² It in fact said: "the policy of encouraging all women to give birth in hospitals cannot be justified on the grounds of safety. . . . Given the absence of conclusive evidence, it is no longer acceptable that the pattern of maternity care provision should be driven by presumptions about the applicability of a medical model of care based on unproven assertions" (paragraph 33). The committee concluded that "women need to be given a choice on the basis of existing information" (paragraph 96). This is all the National Childbirth Trust is asking.

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- 1 Johnson M, Haddad S, Smith J, Walker J, Wong A. Women prefer hospital births. *BMJ* 1992;305:255. (25 July.)
- 2 House of Commons Select Committee on Maternity Services. *Maternity services, second report*. London: HMSO, 1992.

EDITOR,—In 1991 we asked 926 consecutive women attending a family planning clinic in Edinburgh whether they would prefer to have a baby in hospital or at home; we pointed out that if complications arose women choosing home delivery could be transferred to hospital or attended to by the flying squad. One hundred and seventy five of the women had had at least one baby. Altogether 150 (86%) of those who had had a baby said that they would prefer hospital delivery compared with 616 (82%) women who had never had a baby. Whatever the views of the House of Commons Select Committee on Maternity Services,² among our population there was an overwhelming desire for hospital delivery. We thought it likely that had we asked the same questions of women who were pregnant and facing

imminent childbirth an even greater percentage would have preferred hospital delivery. The fact that 92% of women in Martin Johnson and colleagues' study wanted delivery in hospital supports this hypothesis.¹

We also asked the women how long after delivery they would like to stay in hospital. Increasingly the tendency is towards early discharge as a result of pressure both from consumer groups and from managers, who see short stays as economical. Of the women in our survey who had had experience of childbirth, most (117; 67%) wanted to stay in hospital for "a few days"; only five (3%) wanted to go home immediately. In contrast, only 330 (44%) women who had never had a baby envisaged wanting to stay in for a few days, a greater proportion (338; 45%) saying that they would prefer to go home 24 hours after delivery. Perhaps women who have experienced childbirth have a more realistic view of the value of a few days of professional help with a first baby or a rest from the demands of other children.

Our survey adds weight to the recommendation of the maternity services committee that, within reason, mothers should be free to choose how long they stay in hospital after childbirth. The opinions expressed in our survey and Johnson and colleagues' survey may be more representative of what the average British woman wants than those expressed by many of the special interest groups who gave evidence to the select committee. Before any radical reorganisation of maternity services is made it might be wise to take account of these women's views.

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Epidural analgesia and backache

EDITOR,—C MacArthur and colleagues' paper,¹ which forms part of their larger study into health after childbirth,² draws attention to the association between epidural analgesia in labour and complaints of backache and headache in the three months after delivery. Obstetricians and anaesthetists are still left with no idea of how this finding should affect clinical practice.

The difficulty lies largely in the constraints imposed by the study itself. Firstly, it was retrospective, requiring recall as far back as nine years. There is a huge gap between recall and actuality. Secondly, only symptoms were asked about, and many of these would have been identified by most people as having occurred in the past year. If health is the same as absence of symptoms then few people are healthy. Thirdly, the severity of the symptoms was not recorded, nor their effect on the quality of life—a deficiency acknowledged by the authors as inimical to the proper assessment of their findings.² Backache is extremely common and is experienced by virtually everyone at some time. Did the mothers think that their epidural analgesia had been worth it or not?

The study had several positive conclusions, including that epidural blockade increased the incidence of backache by a factor of 1.8 but neither the epidural needle nor the injection of local anaesthetic caused this increase; also, that being in labour, especially with a long second stage, was a prime factor in the backache, both with and without epidural analgesia. The authors' explanation is that postural changes as the fetus passes through the pelvis and the inability of the paralysed musculature to protect against damage to the joints

and ligaments cause the "spinal axis syndrome." Such trauma, however, would cause pain as soon as the analgesia wore off and would be confined to the lower spine. The upper spine has normal innervation with no paralysis during epidural analgesia.

Several other questions arise, such as why was tingling in the hands (outside the blocked area) more than twice as common as tingling in the feet (within the blocked area)? Is self diagnosis of migraine satisfactory for this type of analysis, and can it have the same aetiology as other headaches? Women in labour usually receive epidural analgesia because simpler methods have failed. The pain threshold, which also has a role in the complaint of backache, cannot therefore be ignored.

Epidural analgesia still remains the most effective form of analgesia in labour. Before we deprive mothers of its benefits we should be absolutely sure about the severity of side effects and their influence on normal activities.

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Osteoarthritis of the hip in farmers

EDITOR,—Peter Croft and colleagues' paper confirms what many of us who work in semirural practices have suspected for a long time—namely, that the prevalence of osteoarthritis of the hip and knee is higher in farmers than in other members of the same community. The authors do not, however, take into account a possible hereditary factor: farmland is often handed down within a family, and it may be that the tendency to the disease is inherited along with the land. This possibility is supported by the authors' observation that the prevalence of osteoarthritis was not high in those who had been farm workers for less than 10 years.

A relation between osteoarthritis of the hip and heavy manual work was suggested by Vingard *et al* in 1991 in a register based cohort study.¹ In a study of Swedish farmers, however, Thelin showed that osteoarthritis is significantly more common in the farming community but is unrelated to the duration or intensity of heavy work.² We believe that a possible hereditary contribution to the increased incidence of osteoarthritis of the hip in farmers deserves further consideration.

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- 1 Croft P, Coggon D, Cruddas M, Cooper C. Osteoarthritis of the hip: an occupational disease in farmers. *BMJ* 1992;304:1269-72. (16 May.)
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Saliva as a diagnostic fluid

EDITOR,—Daniel Malamud reaffirms saliva's value as a diagnostic fluid.¹ Collecting saliva for estimation of steroid concentrations has been part of routine monitoring of children with conditions such as precocious and delayed puberty, congenital adrenal hyperplasia, Addison's disease,

amenorrhoea, and hypopituitarism in our paediatric endocrine clinic for many years.

Saliva is invaluable for repeatedly investigating steroid patterns in normal children.² Children from the age of 5 can collect saliva without difficulty, and the oral collecting devices or stimulants that Malamud mentions are unnecessary. Collecting devices that use absorbent materials similar to dental rolls give falsely low results as steroid molecules are retained in the absorbent matrix. In most instances it is not necessary to collect secretions from any one of the three salivary glands in isolation as the concentration of steroid is identical in each fluid and mixed whole saliva samples are considerably easier to obtain.³ The patient needs only to collect 2-3 ml of saliva into a 5 ml plastic blood container with no anticoagulant and send the samples through the post to the laboratory so that the results can be ready for the patient's visit to the clinic a fortnight later.

Neither the staff nor my patients have any difficulty in accepting saliva as a useful method of monitoring a condition. Although saliva may lack the charisma of other body fluids, as Malamud suggests, I am convinced that its advantages, especially in children, outweigh the drama of blood, sincerity of sweat, and awkwardness of urine; moreover, the terror of the needle and the need even to shed a tear are avoided.

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Hepatitis A vaccine for sewage workers

EDITOR,—Anthea J Tilzey and colleagues suggest that sewage workers are among those who might benefit from receiving hepatitis A vaccine.¹ There does not seem to be any published evidence in Britain that sewage workers are at high risk of developing hepatitis A, and the suggestion therefore seems premature.

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- 1 Tilzey AJ, Palmer SJ, Barrow S, Perry KR, Tyrrell H, Safary A, *et al*. Clinical trial with inactivated hepatitis A vaccine and recommendations for its use. *BMJ* 1992;304:1272-6. (16 May.)

AUTHORS' REPLY.—Those who are in close contact with faecal material may be exposed to organisms excreted via the gut. A brief communication has already drawn attention to this hazard among people who spread sewage sludge.¹ Furthermore, the number of sewage workers in Britain is relatively small, and an analysis of cases of hepatitis A confirmed by a laboratory provides some evidence of an occupational risk (J Heptonstall, personal communication). We therefore consider that our recommendation that sewage workers should be protected against hepatitis A with the recently licensed vaccine is justified.

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Is duplicate publishing on the increase?

EDITOR,—Among the articles commended in a recent Editor's Choice¹ was Tony Waldron's quantitative analysis of duplicate publication in the *British Journal of Industrial Medicine*.² The corresponding editorial examined the futility of duplicate publication and clarified the rules determining whether or not an article is a duplicate.³

Waldron's article is important and is likely to be quoted extensively in future articles on similar topics, though it states simply that the increasing percentage of duplicated main articles during the years under review suggests "a substantial increase over time." With reference to this article Editor's Choice also states that duplicate publication "may be getting more common." It is surprising that an article that has undergone careful scrutiny by several editors should not apply any statistical analysis to verify such an important point when the salient figures are included in the original article.

If the figures for 1988, 1989, and 1990 are analysed with a χ^2 test for trend no significant changes are seen ($\chi^2=2.77$; $df=1$). We appreciate that this does not prove that no trend exists. There does not seem, however, to be any significant evidence of a "substantial increase" in the duplication of publication of main articles in the *British Journal of Industrial Medicine* in the years studied.

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Bibliography on cot death needed

EDITOR,—Sarah Stewart-Brown believes that there must be lessons to be learnt from the way in which advice regarding babies' sleeping position has changed dramatically.¹ One such lesson may be the need for authors to carry out extremely thorough literature searches.

In 1944 Abramson reported a series of 128 cot deaths in New York.² Eighty seven of the infants had slept prone and only 22 supine, and in consequence Abramson recommended that "the routine nursing practice of placing infants in the prone position [should] be avoided, except [when] babies are constantly attended, [and should be] entirely done away with at night." Three years later Werne and Garrow reported that, as a direct result of Abramson's recommendation, "the Committee on Public Health Relations of the New York Academy of Medicine, through widely-publicised releases in both the lay and medical press, recently outlined specific measures for mothers to follow."^{3,4}

Werne and Garrow also suggested that the American Public Health Association should establish a commission to study cot deaths comprehensively,³ and if this or some other body had chosen to do so the problem of the safest sleeping position would, presumably, have begun to be tackled then. Instead, increasingly frequently, Abramson's finding and recommendation were not cited, even when the suffocation hypothesis was mentioned in his name, with the result that a generation of people did not know which sleeping position to use.⁵