

routinely vetted before acceptance. Thirdly, the health visitors' records of all newly transferred children are scanned on receipt so that the correct immunisation data can be entered on to the computer. Similarly, general practice staff are encouraged to elicit details of immunisation when new patients are registered.

Drs Abu Arafah and Carmichael state that "In that year [1985] the uptake of whooping cough vaccine in the Grampian region was 85%, and it continued unchanged through to 1989-90." They are mistaken on two counts. At the end of 1985 in Grampian the pertussis immunisation rate was 67.8%, and this rose steadily throughout 1986-90, mirroring national trends,<sup>2</sup> to 93.8% at the end of March 1991. Of the 412 children who were not immunised (cohort size 6638), 98 were described as defaulters, 102 as having medical contraindications, 192 as "parental refusals," and 20 as "reason unknown."

Although the rise in the pertussis immunisation rate is encouraging, many children remain unprotected because of possibly false medical contraindications to immunisation and lack of parental understanding. Both factors need to be tackled; the former by scrutiny of listed contraindications with appropriate feedback advice, and the latter by renewed efforts and by closing loopholes in the new general practitioner contract that discourage late immunisation.<sup>3</sup>

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## Abortion forms

SIR,—The Abortion Regulations 1991 came into effect on 1 April.<sup>1</sup> These amended the Abortion Act 1967 to take account of the Human Fertilisation and Embryology Act 1990. This is important with respect to Professor Geoffrey Chamberlain's article on detecting and managing congenital abnormalities: the form illustrated, Certificate of Opinion A (green), is now obsolete. Interim arrangements allowed its use until 30 April provided one signature was dated before 1 April.

The revised Certificate of Opinion A (blue) should now be used. The statutory grounds have been amended to use letters A-E instead of numbers to identify the grounds, some of which have been reworded. Statutory ground IV referred to in Professor Chamberlain's article is superseded by statutory ground E.

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## Consensus on cholesterol

SIR,—Dr Tony Delamothe raised some of the controversial issues surrounding cholesterol screening and the management of people identified as having a high serum cholesterol concentration.<sup>1</sup> An important aspect of this, included in the document he discusses but not highlighted in his review, is the lack of standardisation of methods and machines for cholesterol analysis. In a pilot study to assess measurements of cardiovascular risk

factors in children we started by comparing results given by two portable cholesterol analysers and a laboratory method in adults. One portable analyser gave repeatable results when comparing capillary with venous blood samples but gave significantly lower results than the laboratory method. The results given by the second portable analyser were inconsistently associated with either of the two other methods, highlighting the difficulties with standardisation. Are the doctors who are treating patients with reportedly raised serum cholesterol concentrations sufficiently aware of the considerable variation in results that can exist between laboratories (as well as the possible biological variation) and the potential inaccuracy of the result?

Broughton *et al* addressed this problem in a study comparing results given by three portable analysers of the same brand used in different general practitioners' surgeries.<sup>2</sup> They found a variation of 5.5% in results given by the machines. This problem is not unique to desk top analysers: a study by Blank *et al* in America showed that variation in results between laboratories was as high as 20%.<sup>3</sup> The Center for Disease Control in the United States has developed a reference method of estimating cholesterol against which other laboratories can now standardise their own methods.<sup>4</sup> This standard is being increasingly adopted. No such system exists in Britain, although moves are apparently being made in this direction.

The importance of these potential inaccuracies and limitations of blood cholesterol testing should, if appropriate advice and treatment are to be minimised, be emphasised in the discussion of the investigation and management of patients. Recommendations about how to interpret variation among analysers and biological variation in cholesterol estimations are important until a nationwide standardisation programme can be established. As Roberts stated: "Measuring cholesterol may be as tricky as lowering it."<sup>5</sup>

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## One or two routine neonatal examinations?

SIR,—Dr G D Moss and colleagues<sup>1</sup> fail to mention the most important reason for carrying out two examinations in the neonatal period. In contrast to the abnormalities that they discuss, cardiovascular signs can change drastically during the first week of life. Coarctation of the aorta is typically silent when the ductus arteriosus is patent and may present with catastrophic cardiac failure after closure of the duct. This problem should be anticipated by examining the femoral pulses in all neonates toward the end of the first week of life. That coarctation was not encountered in a survey of 1795 babies during three months is not surprising as its incidence is about one per 7000 live births.<sup>2</sup>

In screening for congenital heart disease the second neonatal examination is arguably more important than the first. Far from advocating the abolition of this examination, paediatricians should be emphasising its importance to general

practitioners, giving the growing trend for early discharge of mothers and babies from maternity units.

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- 1 Moss GD, Carlidge PHT, Speidel BD, Chambers TL. Routine examination in the neonatal period. *BMJ* 1991;302:878-9. (13 April.)
- 2 Harper PS. *Practical genetic counselling*. Bristol: Wright, 1984.

SIR,—Dr G D Moss and colleagues question the necessity for two routine neonatal examinations by a paediatrician. We performed a prospective study similar to theirs comparing outcome at 3 months of age in two groups of babies—in one the intention was to examine them once and in the other the intention was to examine them twice. The study was done at a time when only two postnatal wards were in use and had the consent of the local ethical committee.

The study's design entailed one routine neonatal examination in ward A and two in ward B unless either the midwives or the parents expressed concern about a baby, in which case the baby was seen as often as necessary. The difference between our study and that of Dr Moss and colleagues was that we concentrated on a late examination in the knowledge that all babies born in hospital were examined by both the midwife and their parents within minutes of birth. Our hypothesis was that one late routine examination by a paediatrician would result in no greater detectable morbidity at 3 months than two routine examinations.

During the study (July to December 1989) 500 babies were enrolled to each arm of the study. Results were analysed on the basis of the findings at the examination and the answers to a questionnaire sent to the general practitioner and health visitor at three months (to which there was an 85% response rate). The group examined once yielded 15 previously undetected problems, of which nine were minor and six were major (two congenital heart disease, two dislocatable hips, one cortical blindness, and one cot death). In the group examined twice there were 12 previously undetected problems, of which seven were minor and five major (two congenital heart disease, one dislocatable hip, one prolonged jaundice (undiagnosed), and one cot death).

The small number of abnormalities detected in total and the relatively low background incidence of abnormalities necessitate a cohort of around 30 000 for meaningful statistical analysis. We agree with Dr Moss and colleagues, however, that there is no clear evidence to justify two routine neonatal examinations by a paediatrician within the first few days of life. We argue, though, that as most major visible abnormalities will be detected by the midwife or parents very soon after birth a single examination is best performed within 24 hours before discharge home, when management problems may have become apparent.

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## Home peak flow meters

SIR,—Drs A S Vathenen and N J Cooke's editorial on home peak flow meters omitted an important indication for home monitoring of peak expiratory flow.<sup>1</sup> Patients with acute asthma should be given a peak flow meter with instructions to keep a diurnal