

- All letters must be typed with double spacing and signed by all authors.
- No letter should be more than 400 words.
- For letters on scientific subjects we normally reserve our correspondence columns for those relating to issues discussed recently (within six weeks) in the *BMJ*.
- We do not routinely acknowledge letters. Please send a stamped addressed envelope if you would like an acknowledgment.
- Because we receive many more letters than we can publish we may shorten those we do print, particularly when we receive several on the same subject.

Parents' beliefs about vaccination

SIR,—We are not surprised that Dr Nigel Klein and colleagues found dubious contraindications to be an important cause of failure of children to get vaccinated.¹ In a prospective study we found that the commonest reason given for omitting the whooping cough vaccine was advice from the general practitioner or community paediatric doctor based on dubious contraindications.² The reason for this is probably complex. Parents whose children were not vaccinated were more anxious about the side effects of the whooping cough vaccine and less convinced about its efficacy than parents whose children were vaccinated against whooping cough. However, we found no evidence that the doctors' concerns about the vaccine played a part in children failing to get vaccinated against whooping cough. Our results suggested that doctors often react to parents who are worried about whooping cough vaccination by excluding the child from vaccination on the basis of dubious contraindications.

Many of these dubious contraindications are no more than a literal interpretation of previous advice from the Department of Health and the manufacturer. Not so long ago if a doctor took note of the department's³ and manufacturer's⁴ instructions together he would have excluded children with a history of fits, abnormal cerebral signs in the newborn period, neurological abnormalities, developmental delay, and allergy together with all those with a family history of epilepsy (not specifying first degree relatives) or neurological disorder. Even now, the manufacturer includes as absolute contraindication cerebral irritation in the newborn period, developmental neurological delay or other disorder of the central nervous system, and a history of epilepsy in first degree relatives.⁵ No sound scientific evidence has been produced to support these contraindications.

The department's contraindications have now been modified and are considerably clearer and narrower, but ambiguities and confusions remain. Doctors are advised to consult experts such as paediatricians before excluding children with problems such as a history of cerebral damage in the newborn period or epilepsy in first degree relatives. While these problems continue to be quoted as possible contraindications many experts will probably advise against vaccination on the grounds that if the child develops neurological problems or epilepsy the whooping cough vaccine will be held responsible and there will be criticism that the relative contraindications were not heeded.

We suggest that the Department of Health and the manufacturer should advise omission of the whooping cough vaccine only when there has been a severe previous reaction to the vaccine. They should advise considering delaying (but not

omitting) the vaccine when the child has poorly controlled epilepsy (until control is achieved), degenerative disease of the central nervous system (until the diagnosis is clarified), or a fever (until the child becomes afebrile). We suggest that children who present to paediatricians or general practitioners and who have missed vaccinations should be opportunistically vaccinated with the triple vaccine even if they have an infection provided they have become afebrile. These simple instructions should be accompanied by a statement of positive reassurance that it is safe to vaccinate children with conditions previously thought to be contraindications.

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- 1 Klein N, Morgan K, Wansborough-Jones MH. Parent's beliefs about vaccination: the continuing propagation of false contraindications. *Br Med J* 1989;298:1687. (24 June.)
- 2 Stevens D, Baker R, Hands S. Failure to vaccinate against whooping cough. *Arch Dis Child* 1986;61:382-7.
- 3 Department of Health and Social Security. *Immunisation against infectious disease—whooping cough*. London: DHSS, 1981.
- 4 Wellcome Research Laboratories. *Trivax diphtheria, tetanus and pertussis vaccine BP (DT Per/Vac)*. Beckenham, England: Wellcome Research Laboratories, 1981.
- 5 Wellcome Research Laboratories. *Trivax diphtheria, tetanus and pertussis vaccine BP (DT Per/Vac)*. Beckenham, England: Wellcome Research Laboratories, 1989.

SIR,—The study undertaken by Dr Nigel Klein and colleagues identified specific respects in which immunisation could be improved¹; sadly, their findings are not unique.

An identical study (unpublished) with similar results was undertaken at Bristol Children's Hospital over two months in 1985. The parents of 210 consecutive children aged 1 month to 6 years seen in the casualty department of this hospital were questioned on their child's immunisation history. Uptake figures were slightly worse than those observed by Dr Klein and colleagues: diphtheria, tetanus, and polio 83%, pertussis 55%, and measles 60%. Only half of those children who had been immunised against pertussis had received three courses. Appropriate reasons for failing to immunise were few. Inappropriate reasons included, in decreasing order of frequency, asthma or eczema (in the child or a first or second degree relative), neurological disorders in a second degree relative (seizures, Parkinson's disease, or multiple sclerosis), and prematurity.

Apathy or mistrust of the safety of the vaccine(s) and intercurrent non-febrile illness accounted for 50% and 27% respectively of all children who missed immunisation. Many parents commented on having received conflicting advice from medical practitioners (general practitioner and child health

clinic doctors) and health visitors; most frequently inappropriate advice originated from medical staff rather than health visitors.

Finally, and perhaps most importantly, of the 28 children aged less than 3 months who were yet to be immunised the parents of 16 stated that they would not have their children immunised against pertussis in view of the then adverse media reports on the vaccine.

While a more directed effort (by all health care personnel) may resolve the confusion and mythology relating to immunisation, dispelling the parental fog of apathy will be more difficult and may demand such methods as used by our European neighbours in linking completed immunisation courses to either the payment of child benefit family allowance (France) or successful school entry (West Germany).

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- 1 Klein N, Morgan K, Wansborough-Jones MH. Parents' beliefs about vaccination: the continuing propagation of false contraindications. *Br Med J* 1989;298:1687. (24 June.)

Managing biliary atresia

SIR,—Though Dr Nelson should be congratulated on highlighting the importance of earlier referral for surgical correction of biliary atresia,¹ we believe that a more positive approach is needed to the role of liver replacement for children when the Kasai procedure fails or when the diagnosis and treatment are delayed.

Extrahepatic biliary atresia affects one in 14 000 liveborn infants in the United Kingdom (40-50 new cases a year).² Outcome is directly correlated to the timing of correction by portoenterostomy. Even when early surgery is undertaken, however, the long term results are often far from satisfactory. Ohi *et al* reviewed 214 patients who had had surgery between 1953 and 1983: 88 were alive and 70 were free of jaundice, and a higher proportion of children operated on in the latter years were treated successfully.³ Even if bile flow is achieved (as it is in about 60% of children) persistent hepatic damage may continue, with progressive cholestasis and portal hypertension leading to death in later years.

Less satisfactory results are achieved when operations are undertaken late. The situation in the United Kingdom is exemplified by a series of cases from King's College Hospital, in which 41 of 50 patients were referred late (operation after 8 weeks of age), most because of inappropriate management and delay in diagnosis.⁴ It seems likely that at present less than a quarter of children achieve long term success with conventional porto-