PostScript

LETTERS

Tuberculous meningitis: more evidence for protective effect of BCG

Walker *et al*[1] rightly concluded that the bacille Calmette–Guérin (BCG) vaccination does have a noteworthy protective effect against tuberculous meningitis (TBM). However, it might be worth pointing out that the analysis does not include a few recent studies, which lead to the same conclusion based on robust data.[2–4] This is presumably because the literature search by the authors was carried out in January 2005.

A recent hospital-based case-control study showed that an absent BCG scar was a significant independent predictor for the occurrence of TBM (adjusted odds ratio 1.98; 95% confidence interval 1.09 to 3.57).[2] The meta-analysis mentioned by the authors is from 1993.[5] A more recent meta-analysis took an interesting slant on the issue and came to the conclusion that one case of TBM will be prevented for every 3435 vaccinations.[3] Although this is certainly an impressive figure, region-specific analysis shows that the maximum benefit is for South-east Asia (46%), where the risk of tuberculosis is highest.[3] Even among patients with TBM, vaccinated children seem to have a better outcome.[4]

Although these data do not change the conclusions reached by the authors, they are sufficiently impressive to add more strength to the analysis. Evidence-based paediatrics, even with all the resources at our disposal, is an ever-changing field. The evidence and the conclusions drawn are subject to change during the significant lag phase between submission of articles and actual publication.

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Clarifying conflicts of interest in research

Having read the research article published by Greenough *et al*,[1] regarding home oxygen use and healthcare utilisation, I was surprised to see that the fact that Abbott Laboratories had funded the research nurses for the study was only included as an acknowledgement rather than a potential conflict of interest. Abbott Laboratories have a very strong commercial interest in children with bronchopulmonary dysplasia, the subjects of this study, as they are the manufacturers of Synagis (palivizumab), an extremely costly and heavily marketed product used in this group of children. Funding of staff by charitable foundations could appropriately be listed as an acknowledgement, but commercial organisations rarely spend money unless there is direct or indirect potential for gain, and surely this is at least a potential conflict of interest for the research team. Those of us who have worked in paediatrics in the UK may automatically be aware of the commercial interest of Abbott Laboratories in ex-premature infants, but the *Archives of Disease in Childhood* has an international readership and has a responsibility to its wider audience to clarify these issues.

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Reference

1 **Greenough A**, Alexander J, Burgess S, *et al*. Preschool healthcare utilisation related to home oxygen status. *Arch Dis Child Fetal Neonatal Ed* 2006;**91**:F337–141.

Author's response

We were extremely surprised by Dr Reed's letter regarding our paper, so we wondered if she had read it thoroughly.

She suggests there may be a conflicting interest. *The Archives of Disease in Childhood* rather terms this competing interest, which they define as ''when professional interest (such as patients' welfare or the validity of research) may be influenced by a secondary interest (such as financial or personal rivalry)''.

Abbott Laboratories is an international company (not UK-concentrated as implied by Dr Reed), which markets palivizumab as a respiratory syncytial virus (RSV) prophylactic agent for use in prematurely born infants with or without bronchopulmonary disease, and in term-born infants with certain types of congenital heart disease.

Our paper was about the healthcare utilisation of preschool children who had or had not required home oxygen on discharge from the neonatal intensive care unit—it was not about RSV prophylaxis.

The joint committee on vaccination and immunisation, already in 2002, following the paper by Thomas *et al*[1] working at St George's hospital, has recommended RSV prophylaxis to prematurely born infants with brochopulmonary disease who had been discharged home on oxygen, as Thomas has shown this was cost neutral.

Thus, we conclude that Dr Reed's implied criticism of *Archives* is unfounded and hence unjust.

A Greenough

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Competing interests: None declared.

Reference

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Splenectomy in cystic fibrosis

Splenectomy in cystic fibrosis remains controversial, mainly because the spleen is considered indispensable in this disease for its important immunological function in defence against frequent infections. Furthermore, centres that perform liver transplantation prefer this approach even after early cystic fibrosis-related liver disease becomes obvious, as it seems more aetiological.

The article by Linnane *et al*[1] is an interesting contribution to this debate. Our recently published findings[2] largely confirm that article although we have doubts on the correctness of the reported indications. Although several of the >500 patients we have followed up over the past 50 years had a gigantic spleen, splenic rupture was never observed, and at splenectomy the surgeons each time recorded a firm thickening of the splenic capsule. In the literature, spontaneous splenic rupture is mostly described in association with infections, inflammatory disease or malignancy—that is, conditions in which the spleen enlarges over a short period of time—whereas no such association is reported in cystic fibrosis. We therefore question ''risk of rupture'' in itself as a true indication for splenectomy. It might be difficult to decide on the appropriate timing for operation when this is the main indication, as no information is available on the fragility of variably enlarged spleens.

Although we agree that low platelets are indeed no single indication for splenectomy, it can be justified in individual cases because of the risk of complications. A 19-year-old patient recently underwent splenectomy with splenorenal shunt out of fear of cerebral haemorrhage. He had a thrombopenia of 35 000/mm^3, and frequent cutaneous bleeding after severe cough attacks. His spleen span was 25 cm, and placement of transjugular intrahepatic

portosystemic shunt had not resulted in any amelioration. Four months after removal of a 1.7 kg heavy spleen, platelets were at 550 000/mm^3 and all skin signs had disappeared. Even if it can be asserted that the thrombopenia is no real reason for concern, knowing that it has normalised is reassuring. We confirm improvement of pulmonary function and a positive effect on nutritional status, which was maintained even 5 years later. From the present article and our own results, it is clear that splenectomy can have many beneficial effects while of delaying the need for liver transplantation for several years. However, it should be performed only in highly controlled conditions, with provision for a rigorous follow-up and constant awareness of the danger of overwhelming sepsis.

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More blood tests in paracetamol overdose?

We read with interest the recent article in *Archives of Disease in Childhood* concerning paracetamol-induced hepatotoxicity,[1] and discussed it at the Journal Club of the Derbyshire Children's Hospital's. We found the management algorithm useful for knowing which patients we need to refer to a specialist unit. However, we felt that some clarification is needed regarding the issue of repeat blood tests in two situations.

1. In Management A (paracetamol level below the treatment line and an overdose <150 mg/kg), the authors suggest observation and repeat blood tests in 24 h. Our current practice, as guided by Toxbase (http://www.spib.axl.co.uk/toxbaseindex.htm), is not to do any further blood tests on children who do not require treatment. They stay in hospital to see Child and Adolescent Mental Health Services, and are often discharged before 24 h. The authors did not present any evidence for repeating blood tests in those not requiring N-acetylcysteine (NAC). Adopting this practice would increase our current admission times.

2. Management B suggested 8–12-hourly blood tests while on NAC. Again, our current practice is to perform blood tests at the end of the NAC, which is usually about 16 h later. Depending on these blood test results, we make the decision whether or not to continue the NAC. We are not sure whether to perform blood tests sooner on all patients, or on some patients, and whether this would change our management.

It would be helpful to know the evidence behind these issues.

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Reference

1 **Mahadevan S**, McKiernan P, Davies P, *et al*. Paracetamol induced hepatotoxicity. *Arch Dis Child* 2006;**91**:598–603.

Authors' response

The letter by Sanchez-Bayle *et al*[1] states that the administration of hypotonic saline to children with gastroenteritis is not, in their view, associated with an increased risk of hyponatraemia. This is in sharp contrast with our findings,[2 3] and those of others, showing that the risk is real. Unfortunately, the data provided by Sanchez-Bayle are insufficient for analysis and we look forward to their findings being published in full.

On the other hand, we also concluded from our studies that any isotonic solution used should contain added glucose. In two studies of children with gastroenteritis (n = 154), we have documented a 4% rate of hypoglycaemia (blood glucose concentration <2.6 mmol/l) at presentation.[2 3] In both studies, the hypoglycaemia responded to the 2.5% dextrose content of the intravenous fluid prescribed at either a slow or rapid rehydration rate. Much of the recent literature on isotonic versus hypotonic saline solutions for children ignores the need for glucose, and we welcome this focus.

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Competing interests: None declared.

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Developmental assessment: practice makes perfect

Developmental assessment is an essential component of paediatrics, and is a key feature of the Member of Royal College of Paediatrics and Child Health (MRCPCH) clinical examination. All candidates have a child development station, which accounts for 10% of the total mark. The ''Hints and Tips'' section of the Royal College of Paediatrics and Child Health *Guide notes for candidates* document states ''The examiners are looking for an organised approach—and the best thing you can do, is to assess as many children as possible.''[1]

Table 1 Number of practice developmental assessments in preparation for examination

Number of practices	Candidates n (%)
0	16 (26%)
1	15 (25%)
2	15 (25%)
3	11 (18%)
5	3 (5%)
>10	1 (1.6%)

Candidates attending preparatory clinical courses held 2–3 weeks before the MRCPCH clinical examination sessions in February and June 2006 were asked how many times they had practised a developmental assessment of a child in preparation for their examination. Table 1 details the answers given by 61 candidates.

The results show that the candidates fail to understand that developmental assessment is a key component of the examination, and imply that these core skills are not being dealt with in current senior house officer training programmes. Three quarters of the candidates had practised no more than twice, with a quarter having performed no practice in child development assessments at all.

Developmental assessment should be considered a core competency in early paediatric training programmes. Candidates taking the MRCPCH clinical examination need to ensure that they use all available opportunities to practise assessing child development. It is also clear that good organisation and preparation are the key factors in passing clinical examinations.[2]

The restructuring of competency-based training and assessment, as a result of the modernising medical careers reforms,[3] is an opportunity to increase developmental assessment training for paediatric trainees.

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