

Drs Ventura and Brooke comment:

We thank Dr Bell and her colleagues for their comments. We were unaware of their paper when we submitted ours. There may well be differences in plasma amino acids depending on the type of preterm formula used, just as there will be differences if one formula is fed at different volumes.

The purpose of our paper was not to compare formulas—only two infants were fed on formulas other than SMA Low Birthweight—but to examine the effects of a relatively high protein intake (in comparison with, for example, banked breast milk) in very low birthweight infants. The infants in our study were appreciably smaller than those studied by Bell and her colleagues, but even so no potentially hazardous amino acid concentrations were detected.

Nebuhaler in young asthmatic children

Sir,

We read the article by Pool *et al*¹ with special interest because inhaled bronchodilators are underused in French asthmatic children.

Bronchodilator responsiveness is reliably assessed in a pressure-type body plethysmograph (Fenyves and Gut, Basel) allowing the measurement of specific airway resistance (SRaw) even in young children. Indeed this method does not demand active cooperation.² To measure the efficacy of the Nebuhaler we studied 21 asthmatic children (mean age 5.5 years, range 3–8). They were randomly assigned to either metered-dose inhaler (group A, n=9) or Nebuhaler (group B, n=12). Each child was given two consecutive puffs of terbutaline (500 µ) according to Reiser and Warner's technique for metered-dose inhaler³ and that of Pool *et al* for the Nebuhaler.¹

Basal SRaw (mean (SD)) was similar in group A (14.4(8.9) cm H₂O/l/second) and B (14.2 (5.8) cm H₂O/l/second). Fifteen minutes after inhalation SRaw decreased, but not significantly in group A (9.3 (4.3)). In contrast in group B (Nebuhaler) the decrease in SRaw was highly significant (6.9 (2.3), p<0.01, Student's *t* test and Wilcoxon).

Although the numbers were small these results support the idea that in young children (≤8 years) even closely medically supervised, hand-lung coordination is poor and/or unpredictable whereas pear shaped spacers are efficient and merit a wider usage. However in children aged >8 years, properly instructed, metered dose inhalers were shown to be as effective and more practical than spacer devices (results not shown).

References

- 1 Pool JB, Greenough A, Gleeson JGA, Price JF. Inhaled bronchodilator treatment via the nebulizer in asthmatic patients. *Arch Dis Child* 1988;63:288–91.
- 2 Rufin P, Benoist MR, Scheinmann P, Paupe J. A study on the reproducibility of specific bronchial provocation testing in children. *Clin Allergy* 1984;14:387–97.

- 3 Reiser J, Warner JO. Inhalation treatment for asthma. *Arch Dis Child* 1986;61:88–94.

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Disposable nappies—a cautionary tale

Sir,

Recently a mother brought one of her sons (aged 2 years) to casualty having discovered an unusual orange/brown jelly like material in his nappy. The material was shaped like a flattened ovoid with an irregular surface, some 20 mm in diameter at the broadest point and 12 mm in width. On examination, the child was found to be normal and the material sent to the laboratory for analysis.

On first examination the material resembled faeces but was a resilient jelly like material which did not smear easily on a microscope slide (unlike faeces) and did not take any stains for fat or protein. It was also resistant to common solvents such as water, dilute acids and alkali, ethanol, and ether.

A clean disposable nappy was obtained and cut in two. The cotton wool was found to be impregnated with a crystalline powder which absorbed water readily, forming a clear gelatinous mass. Use of coloured solutions resulted in the jelly retaining the colour, and urine produced a substance remarkably like the original material found in the child's nappy.

The advent of 'stay dry' nappies where the water from urine is absorbed and retained has been heralded as a new development, contributing to the prevention of 'nappy rash'. In this case, the mother had purchased a batch of nappies that were being marketed as rejects. It is likely that an inherent defect in them, plus the child being left unchanged for some time, lead to the appearance of the gel.

Work by one of the manufacturers of such nappies has shown that the polyacrylate gel used to retain the water is non-toxic and is unlikely to harm the child. As we have now had several such cases, we wish to draw your readers' attention to the matter so that mothers who encounter the same situation may be reassured that the unusual nappy contents have not come from the child.

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