

LETTERS TO THE EDITOR

The extended role of the new school doctor

SIR,—With the movement of preschool preventive medicine towards primary care, the focus in community child health services is changing towards school age children. We believe that the school health service is an underutilised yet potentially powerful child health resource and put forward the following views for discussion.

Children's health in schools

The emphasis in school health services should be moved away from primary care medicine for all schoolchildren towards the development of the science of (re)habilitation for those with *special needs* (including support for the psychosocially vulnerable). The new school doctor should not only be well versed in the medical details of conditions causing chronic health impairment in childhood, but also be familiar with the theoretical and practical concepts underlying handicap and developmental disability (for example, the sociology of poverty and stigma, methods of measuring handicap, and the physiological basis of physiotherapy).

A further necessary part of this individual 'clinical' role of the new school doctor is the *early identification* of children with special needs (and the generation of data to audit this early identification process).

Healthy schools for children

Healthy environments

The school doctor has a 'public health' responsibility for children at school. Why for instance do schools not keep a register of accidental injuries occurring among their children? Not a book in the secretary's office for legal purposes, but an educational exercise to discover the patterns and causes of injury, whether they occur in or out of school. Schools may be an ideal medium for the conduct of a campaign for better road crossings and safer play areas. These campaigns would involve a number of disciplines both in and out of the school and could be based on hard local data collected by the school.

Health(y) education

A great deal of effort is already invested in schools in more or less explicit health education but what do we know about the results? Our new school doctor should be working with the school nursing service on a continuously updated survey on smoking, diet, alcohol/drug abuse, and accident related behaviours for the school population. These are legitimate measures of local 'positive' child health and may provide vital feedback into curriculum development.

These initiatives in extending the habilitation and health promotion roles of the school health service will require new skills from our school doctors. Not only will they need to

extend their knowledge of basic sciences (epidemiology, statistics, sociology as well as developmental paediatrics) but also they will require insight into organisational structures, together with communication and assertiveness training to help fulfil their true position as public health advocates for school children.*

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*This paper is based on a discussion document used in the design of a new MSc in Community Child Health now established in Newcastle.

Iron supplementation in the preterm or low birthweight infant

SIR,—In September of 1988 we carried out a similar survey to that of Barclay *et al.*,¹ by telephone, contacting 26 British neonatal units with more than four intensive care cots. It appears that the two surveys have similar results: the statistical modes for the dose of iron supplement, the time of initiation, and duration of treatment are identical. However, we reached a different conclusion. In view of the recommended supplement given by the European Society for Paediatric Gastroenterology and Nutrition or the American Academy of Pediatrics,² the great majority of neonatal units oversupplement their patients. Although there is no reported difficulty associated with these larger oral supplements, if taken in conjunction with transfused iron, it is conceivable that the raised iron load will increase susceptibility to infection, and potentiate other pathologies via free radical mechanisms in a small or premature neonate.³ Therefore on the basis of *primum, non nocere* we concluded that iron supplements should be reduced to the level of current recommendations, and the consequences carefully monitored.

In our survey we further identified another complication associated with iron supplements: in two units iron and phosphate supplements were given to patients during the same drug round. This combination produces an insoluble complex, rendering both supplements ineffective.

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- 1 Barclay SM, Lloyd DJ, Duffy P, Aggett PJ. Iron supplements for preterm or low birthweight infants. *Arch Dis Child* 1989;64:1621-2.
- 2 Wharton BA (chair). *Nutrition and feeding of preterm infants*. Oxford: Blackwells, 1987.
- 3 Herschko C, Peto TA, Weatherall DJ. Iron and infection. *Br Med J* 1988;296:660-4.

Arteriovenous malformations in the vein of Galen

SIR,—We enjoyed reading the annotation on arteriovenous malformations of the vein of

Galen by Dr Nicholson *et al.*¹ In the annotation reference was made to our case report of a newborn with a pattern I lesion who had her severe congestive heart failure treated by embolisation of the malformation using Gianturco coils.² Nicholson *et al.* suggested this procedure is a useful interim measure allowing elective surgery to be carried out when the child is older and fitter.

In our case, however, we reported a successful outcome to the age of 21 months with normal growth and development.² Indeed, our little girl is now 4.3 years old and appears perfectly normal, without any additional procedures having been necessary.

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- 1 Nicholson AA, Hourihan MD, Hayward C. Arteriovenous malformations involving the vein of Galen. *Arch Dis Child* 1989;64:1653-5.
- 2 McCord FB, Shields MB, McNeil A, Halliday HL, McCCLURE G, Reid MMc. Cerebral arteriovenous malformation in the neonate: treatment by embolisation. *Arch Dis Child* 1987;62:1273-5.

Increases in plasma concentrations of a prostaglandin metabolite in acute airway obstruction

SIR,—Skoner *et al.* elegantly demonstrated raised plasma concentrations of a prostaglandin metabolite during and after recovery from acute airway obstruction in infants.¹ They suggested that prostaglandin F_{2α} is involved in airway obstruction and therefore encourage trials of specific anti-inflammatory agents for the treatment of airway obstruction.

There are, however, some disturbing data in the article that should preclude assuming any causal relationship between prostaglandins and airway obstruction in these studied infants. The authors have not actually found any difference in prostaglandin concentrations between infants studied before treatment and those studied shortly after initial treatment. They have not demonstrated such a difference even in the few infants whose prostaglandin concentrations were measured before and shortly after airway obstruction (their fig). It is also not clear from the data whether group II (infants after treatment) had their airway obstruction resolved at the time of blood collection.

In order for an appropriate correlation between prostaglandin plasma concentrations and airway obstruction, more objective parameters (lung function tests) need to be studied rather than the clinical assessment used in this study. Furthermore, airway obstruction such as described was probably associated with a marked degree of stress. Hypoxaemia may have been present as well. The possibility also exists that prostaglandins are released into the circulation in response to bronchoconstriction. Tachypnoea, bronchoconstriction, hypoxaemia, and stress are all variables that should be excluded as a possible cause for prostaglandin secretion. Thus it is still to be determined whether prostaglandins play a mechanistic role in airway obstruction or whether their increases are merely a morphological marker for some other aspects of the acute clinical situation.

Treatment directed against byproducts of