Correspondence

Anaemia and child health surveillance

Sir,

Professor Illingworth's 'state of the art' review of iron deficiency anaemia¹ raised important issues of prevention but poses more questions than it answers, some of which are addressed in a recent *Lancet* editorial.² Should haemoglobin estimation be a screening test in childhood, and if so what technique should be used? What dietary strategies might best prevent anaemia (and the accompanying psychomotor delay)? There is also a wider question: what investigations should be available for children at primary care level, and should they be in general practitioner surgeries or clinics, or both?

It would be good to see a consensus emerging from within the British Paediatric Association on these questions to guide primary care practice. Some basic community research will be needed, however, to establish: (1) the best age to test for anaemia; (2) the most suitable technique to use and whether it will be clinic or central laboratory based; (3) the nature of the diet that leads to anaemia in different populations; and (4) the acceptability and practicability of a blood test as part of routine surveillance. Quality control is the stumbling block in establishing peripheral diagnostic facilities such as haemoglobin estimation, urine microscopy, and stool analysis, but the escalating demands on hospital laboratory services must surely point us in this direction.

References

- 1 Illingworth R S. Anaemia and child health surveillance. *Arch Dis Child* 1986;**61**:1151–2.
- 2 Anonymous. Iron deficiency – time for a community campaign? [Editorial]. *Lancet* 1987;**i**:141–2.

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Age specific xerophthalmia rates among displaced Ethiopians

Sir,

In his paper Dr Pizzarello reports the eye signs that he found in 1200 displaced Ethiopian children and that he attributed to vitamin A deficiency.¹ The results were analysed by sex and for age groups 0–6 years and 7–14 years. The rates of Bitot's spots and corneal xerosis in all groups, as well as those for keratomalacia and corneal scars, far exceeded those suggested by the World Health Organisation (WHO)² as criteria for recognition of a public health problem. His conclusion that vitamin A

deficiency was a serious problem in those aged 7–14, as well as in those aged 0–6, must not be allowed to go unchallenged. Interestingly enough, the first clear demonstration of the lack of relation between Bitot's spots and active vitamin A deficiency in school age children was carried out nearly 30 years ago in Ethiopia.² This observation has since been repeatedly confirmed from other parts of the world.^{3–4} At least some of the Bitot's spots in older children seem to be stigmata of vitamin A deficiency in the past,⁵ and this may account for the rise in incidence with increasing age, commonly reported, as here. This is why WHO insisted that the subject group for prevalence surveys should be preschool age children.²

Another disturbing feature of this paper concerns the other criterion for coming to this conclusion—namely, corneal xerosis (X2). During the many discussions that I have had over the years with other workers experienced in the ocular manifestations of vitamin A deficiency, it has always been agreed that X2 (as the most advanced eye change present) is quite rare, probably because it advances rapidly to keratomalacia (X3A or B). Furthermore, without a slit lamp it is usually difficult to know whether or not a cornea is xerotic. For these reasons X2 is included with X3A+B in the WHO criteria.² The high incidences for X2 reported here are most unusual. All of this is not to minimise the serious problem of the occurrence of vitamin A deficiency in refugee populations. Although the WHO guidelines have not been engraved on tablets of stone, they have been drawn up after prolonged and detailed consideration of the available evidence. They should be read carefully and followed strictly; if then they can be shown to be in need of revisions this will happen if new data necessitate it.

Figures 1 and 2 have been incorrectly labelled.

References

- 1 Pizzarello LD. Age specific xerophthalmia rates among displaced Ethiopians *Arch Dis Child* 1986;**61**:1100–3.
- 2 Report of a joint WHO/UNICEF/USAID/HKI/IVACG meeting. Control of vitamin A deficiency and xerophthalmia. WHO Tech Rep Ser 1982; No 672.
- 3 Paton D, McLaren DS. Bitot spots. *Am J Ophthalmol* 1960;**50**:568–74.
- 4 Sommer A. *Nutritional blindness: xerophthalmia and keratomalacia*. New York: Oxford University Press, 1982.
- 5 Sommer A, Emran N, Tjakrasudjatma S. Clinical characteristics of vitamin A responsive and nonresponsive Bitot's spots. *Am J Ophthalmol* 1980;**90**:160–71.

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Dr Pizzarello comments:

I agree with Dr McLaren that the rates of xerophthalmia in the age group 0–6 far exceeded WHO guidelines but