

stage of labour entails clamping the cord as soon as possible as well as routinely using prophylactic oxytocic drugs and, often, controlled cord traction. In contrast, expectant management entails delaying clamping of the cord and does not include use of prophylactic oxytocic drugs or controlled cord traction. Whereas active management is strongly associated with a reduction in postpartum haemorrhage and other measures of maternal blood loss, the effects on the neonate are less clear.

A review of the studies that have examined the timing of clamping of the cord suggested that delay is associated with a greater volume of placental blood transfusion to the newborn baby.⁴ One study has suggested that this can have a longer term impact as measured by higher serum ferritin concentrations at the age of 9 months.⁵ This study, however, was observational and hence was potentially subject to selection biases, and the follow up did not extend beyond the first year of life.

We are planning to follow up children of mothers who participated in the Hinchings-brooke randomised controlled third stage of labour trial to compare active with expectant management of the third stage of labour. The children will be between 2 and 5 years old at assessment. If this study shows that delaying the timing of clamping of the cord could reduce iron deficiency anaemia in children, the results will be readily generalisable to most term babies born vaginally in hospitals in Britain and most other developed countries. The implications of different managements of the third stage of labour for developing countries with greater problems of both maternal and childhood mortality and morbidity may be even more important.

Diana Elbourne Senior lecturer
Medical Statistics Unit, London School of Hygiene and Tropical Medicine, London WC1E 7HT

Carol Dezateux Senior lecturer
Department of Epidemiology and Biostatistics, Institute of Child Health, London WC1N 1EH

- 1 James JA, Laing GJ, Logan S, Rossdale M. Feasibility of screening toddlers for iron deficiency anaemia in general practice. *BMJ* 1997;315:102-3. (12 July.)
- 2 Idjradinata P, Pollitt E. Reversal of developmental delays in iron deficient anaemic infants treated with iron. *Lancet* 1993;341:1-4.
- 3 Pisacane A. Neonatal prevention of iron deficiency. *BMJ* 1996;312:136-7.
- 4 Prendiville WJ, Elbourne DR. Care during the third stage of labour. In: Chalmers I, Enkin M, Keirse MJNC, eds. *Effective care in pregnancy and childbirth*. Oxford: Oxford University Press, 1989:1145-69.
- 5 Michaelsen KF, Milman N, Samuelson G. A longitudinal study of iron status in healthy Danish infants. effect of early iron status, growth velocity and dietary factors. *Acta Paediatr* 1995;84:1035-44.

Study to determine prevalence of iron deficiency was suspended

EDITOR—James et al report on the feasibility of screening toddlers for iron deficiency anaemia.¹ In 1993 I, a GP, and a health visitor, tried to address the same issue of screening in a project approved by Leicestershire ethics committee. The objective was to assess the feasibility of population screening for iron deficiency and to determine the prevalence of iron deficiency by assessing the iron status in a randomly selected

sample of 150 Asian and 150 non-Asian children aged from 18 months to 3 years. A fingerprick capillary blood sample was obtained to analyse haemoglobin and serum ferritin concentrations, mean cell volume, and mean corpuscular haemoglobin.

Out of the first 90 invitations sent in each group of children, a response was received from the parents of 23 Asian and 29 non-Asian children. Out of these, blood tests could be done in only 16 Asian and 6 non-Asian children. Three of the Asian children had a haemoglobin concentration of <115 g/l and 12 had a ferritin concentration of <15 µg/l, while none of the non-Asian children had results in those categories. The reasons given by parents for rejecting the offer of a screening test were mainly a natural aversion to subjecting their young children to blood tests and a lack of awareness of iron deficiency as a common problem in children. This made us question the value of a screening approach for iron deficiency in primary care, and the project was suspended.

Iron has an important and wide ranging role in the normal health and development of children,² and it is therefore essential to address the common problem of iron deficiency in children. In the United States, primary prevention with iron supplementation and food fortification seems to have worked well in reducing the incidence of iron deficiency anaemia.³ The impact of this programme in reducing iron deficiency that is not sufficient to cause anaemia, however, is not known.⁴

Another useful approach is through opportunistic screening for iron deficiency in children presenting with a wide variety of physical, behavioural, and developmental problems. Since our disappointing experience with screening I have successfully adopted this approach in my paediatric practice. On having the significance of iron explained to them, parents generally agree to have their children's iron status assessed.

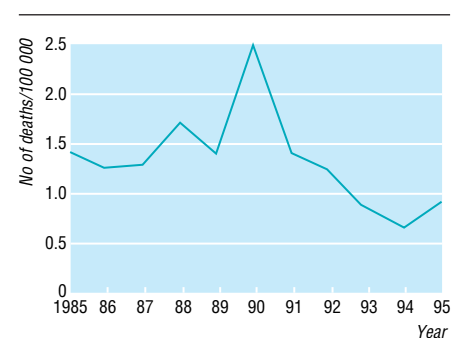
Rashmin C Tamhne Consultant community paediatrician
Leicestershire Community NHS Trust, Leicester LE5 0TD

- 1 James JA, Laing GJ, Logan S, Rossdale M. Feasibility of screening toddlers for iron deficiency anaemia in general practice. *BMJ* 1997;315:102-3. (12 July.)
- 2 Dobbing J, ed. *Brain, behaviour and iron in the infant diet*. London: Springer-Verlag, 1990.
- 3 Miller V, Sevany S, Deinard A. Impact of the WIC program on the iron status of infants. *Pediatrics* 1985; 75:100-5.
- 4 Blatt SD, Weinberger HL, Neefe HP. Elevated erythrocyte protoporphyrin as an indicator of iron deficiency in an urban population. *Ambulatory Child Health* 1997;2:303-10.

Deaths from accidental drug poisoning in teenagers

Deaths due to volatile substance misuse are greatly underestimated

EDITOR—Roberts et al report deaths due to accidental poisoning by opiates and other psychotropic agents among 15-19 year olds between 1985 and 1995.¹ Their data are drawn from deaths with external cause of injury code (E codes) E8500-8690. These



Death rate from volatile substance misuse among 15-19 year olds, England and Wales, 1985-95

yielded 90 deaths from poisoning by opiates and related narcotics and 40 from poisoning by other psychotropic agents. They do not mention deaths related to volatile substance misuse, also known as solvent misuse or glue sniffing.

Over this period we have kept a register of deaths associated with volatile substance misuse.^{2,4} For 1985-95 this includes 502 deaths of subjects aged 15-19 years. We have E codes for some of these cases. Only 44 were coded E8500-8690, of which 30 were coded E8680 (accidental poisoning by other utility gases and other carbon monoxide). This is mostly butane lighter fuel (26 cases). Thus the E codes greatly underestimate the death toll due to volatile substance misuse, which is why the register was established.²

The time trend was very different from that for illegal drugs, for which Roberts et al found a dramatic increase over this period. Deaths from volatile substance misuse rose to a peak in 1990 and then fell (figure). This fall coincided with a national campaign run by the Department of Health and aimed at parents.

We agree with Roberts et al that their data underestimate the numbers of drug related deaths. We suspect that the number of deaths related to volatile substance misuse is underestimated from E codes to an even greater extent, because of the variety of substances and modes of death involved.

The most recent annual report for the volatile substance misuse register,⁵ which covers the period discussed by Roberts et al, is obtainable from JT or at www.sghms.ac.uk/phs/vsamenue.htm.

J M Bland Professor of medical statistics
Jennifer Taylor Research manager
Department of Public Health Sciences, St George's Hospital Medical School, London SW17 0RE

- 1 Roberts I, Barker M, Leah L. Analysis of trends in deaths from accidental drug poisoning in teenagers, 1985-95. *BMJ* 1995;315:289. (2 August.)
- 2 Anderson HR, Dick B, MacNair RS, Palmer JC, Ramsey JD. An investigation of 140 deaths associated with volatile substance abuse in the United Kingdom 1971-81. *Hum Toxicol* 1982;1:207-21.
- 3 Anderson HR, MacNair RS, Ramsey JD. Deaths from the abuse of volatile substances: a national epidemiological study. *BMJ* 1985;290:304-7.
- 4 Esmail A, Anderson HR, Ramsey JD, Taylor J, Pottier A. Controlling deaths from volatile substance abuse in under 18s: the effects of legislation. *BMJ* 1992;305:692.
- 5 Taylor JC, Norman CL, Bland JM, Ramsey JD, Anderson HR. *Trends in deaths associated with abuse of volatile substances 1971-1995*. London: St George's Hospital Medical School, 1997. (Report No 10.)