

tive study of rural pre-school children aged one to four years. This has been accumulated as a base line for a prospective surveillance programme.

Screening was offered to 485 pre-school children in the practice. Indices including haemoglobin concentration, mean corpuscular volume, serum ferritin level and serum cholesterol level were estimated. Haemoglobin concentration less than 11 gdl⁻¹, mean corpuscular volume less than 75 fl or serum ferritin level less than 11 µgl⁻¹ denoted anaemia or iron deficiency. If the random serum cholesterol level was greater than 6mM a subsequent fasting level was determined and appropriate management initiated. Growth centiles, birth and dietary history, social class distribution and immunization record were noted from a questionnaire sent to every parent.

Parents were invited to bring their child to the health centre and prior to the venepuncture every child received local anaesthetic cream.² The questionnaire was returned at this stage. At the initial interview, usually with the mother, the questionnaire was examined and the direct relationship between iron deficiency and delayed psychomotor development explained.^{3,4} It was felt that this education would increase future compliance should any abnormality be detected. The follow up schedule was explained and where possible it included determination of haemoglobin concentration, mean corpuscular volume and reticulocyte count two weeks after starting therapy, to confirm response to iron therapy. Dietary advice was given by the dietician. A prolonged course (three months) of oral iron was prescribed to those children diagnosed as iron deficient to ensure adequate repletion of body iron. Three months after the diagnosis, growth parameters would be measured and blood levels monitored.

At all stages parents were given the opportunity to discuss any problem they might have regarding their child. On non-attendance, a further two invitations to attend at any time were sent to the parents. There are no ethnic minorities in the practice area and middle and lower social classes predominate.

Over a four month period, 312 children were screened — 64% of those to whom screening was offered. The overall prevalence of iron deficiency was 21% but the prevalence of iron deficiency anaemia was much lower at 6%. The incidence of iron deficiency varied with age — 24% in one year olds, 25% in two year olds, 19% in three year olds and 15% in four year olds. For anaemia there was a similar variation — 5% in one year olds, 9% in two year olds, 2% in three year olds and

7% in four year olds. Analysis of venous blood for serum cholesterol levels was possible for 97% of the children screened. Only 3% had random serum cholesterol levels above normal and only one child had a subsequently raised fasting serum cholesterol level, requiring dietary manipulation.

The incidence of iron deficiency and iron deficiency anaemia in this practice is comparable with other studies.⁵ This would suggest the need for routine paediatric surveillance for iron deficiency. The low prevalence of hypercholesterolaemia precludes its routine screening, except where there is a significant family history.

GERALDINE A. GRANT

The Medical Centre
10a Lineside, Coalisland
Co Tyrone BT71 4LP

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Dispensing costs

Sir,

Neville and colleagues conclude that there is a major role for the pharmacist in preventing prescription errors (March *Journal*, p.110). Their results in fact clearly demonstrate that most of these errors are caused by the current system which separates the tasks of prescribing and dispensing in time, place and person. It is reassuring that in their study the overall error rate was so small, that there were no errors which were potentially serious to the patient and that there were no illegible scripts. Naturally they found that some doctors had higher error rates than others. They also found that feedback failed to reduce these errors yet they propose an increasing role for the pharmacist whose major role is in providing feedback.

The single commonest error was a prescription for the wrong pack size, accounting for 37% of all errors. A failure to state the strength of a preparation prescribed produced a further 32% of errors. These two errors clearly illustrate the doctor's poor knowledge of drug presentation. I believe this is a direct consequence of a system which prevents doctors from handling the drugs they

prescribe. It would be interesting to compare these error rates with those in dispensing practices.

In their classification of error types words such as nuisance, inconvenience, annoying and delays are used. These highlight major features of the present system for the provision of medicines. In 34% of cases the chemist found it necessary to contact the doctor. It would have been useful for the authors to have quantified the inconvenience caused to the patient in these cases by measuring waiting time, the number and distance of any extra journeys made, and what extra costs the NHS incurred; for example the cost of telephone calls.

I believe the authors have misinterpreted the implications of the Daonil (Hoechst) case. It highlights the benefits to be gained from allowing dispensing to take place within the surgery building since it is highly unlikely that a dispensing technician employed within a practice would misread familiar handwriting.

In Suffolk, dispensing doctors were able to provide patients with medicines for half the cost of the prescriptions provided by chemists. The total drugs bill for FP10 dispensing in Suffolk for the past financial year was £176 million. The average cost of doctor dispensed items was £3.49 while chemist dispensed items at £6.51 were almost twice the price. Because of the chemists' monopoly only 5.4% of dispensing in Suffolk was by doctors. There is therefore a potential saving to the exchequer of £81 million per annum for Suffolk alone if all dispensing were done by general practitioners. It is therefore surprising that the current regulations give the chemists every encouragement to open new businesses in competition with rural general practitioners and that the new rural pharmacies attract considerable subsidies from the essential small pharmacies scheme (Regulations for the NHS medical and pharmaceutical services 1988).

Neville and colleagues' study illustrates some of the major disadvantages of the current system. I fail to see why modern medicines, most of which are in original packs, cannot be dispensed from the surgery by a trained dispenser working for the general practitioner on site, and why pharmacists are protected by a monopoly which is counter to the interests of all but the chemists themselves. In order to reduce errors in the provision of medicines, whenever possible dispensing should be performed by the same person in the same place at the same time as prescribing.

P.D. THOMAS

Newell Rise, Claydon
Ipswich IP6 0AQ