

which may well result in the largest wasted potential in a large proportion of our childhood population.

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SIR,—I found the leading article by Mr A G D Maran and Ms Janet Wilson unduly negative about the possible contribution of conductive deafness towards later language problems.

Having conceded that many authorities consider that a hearing loss in the range 15-25 dB in the first two years of life may significantly affect later speech, the authors go on to outline how difficult it is to prove this point for conductive deafness. They conclude that, in the absence of proof, "there is no need for otolaryngologists and paediatricians to seek out more children aged under 2 for myringotomy."

The evidence should make one very critical about such complacency. Hubbard *et al* reported on 48 children with repaired cleft palates who were at high risk of glue ear from early life.¹ These were divided into 24 pairs according to whether the myringotomies were done early (mean 3.0 months) or late (mean 30.8 months). Hearing acuity and consonant articulation were significantly better in those receiving early surgery, whereas mean verbal and performance intelligence quotients were not different.

My own conclusion is that a very strong case can be made for early grommets in children with severe glue ear in the critical first two years of life, particularly if they are known to have language problems.

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1 Hubbard TW, Paradise JL, MacWilliams BJ, Elster BA, Taylor FH. Consequences of unremitting middle-ear disease in early life. *N Engl J Med* 1985;312:1529-34.

SIR,—The counsel of inactivity suggested by Mr A G D Maran and Ms Janet Wilson, together with the ambiguity of their closing paragraph, is unhelpful to community doctors who seek authoritative guidance on the early detection of children with hearing loss.

We know that there are considerable delays in the diagnosis of deaf children,¹ yet there is uncertainty over the best method of screening and who should do it.² The authors are therefore taking an excessively narrow view in stating that "there is no need... for paediatricians to seek out more children under 2 for myringotomy." We seek children with hearing loss and early evidence of language impairment, though the later management of these conditions is not clear cut. Hall and Hill (in a paper not cited by the authors) have noted that five variables affect language development in children with glue ear: age, duration of episodes, severity of hearing loss, intrinsic qualities in the child, and the child's environment.³ These must all be assessed but the first essential is detection of the condition. We *must* seek out such children before they are 2; though not all will require referral to an otolaryngologist, proper follow up will be needed in the community so that those with a persistent problem can be appropriately referred. Paediatricians and primary care doctors should work closely with otolaryngologists to establish appropriate referral criteria as well as research methods for assessing outcome.

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- 1 Martin JAM, Moore WJ. *Childhood deafness in the European community*. Luxembourg: Commission of the European Communities, 1979. (EUR 6413.)
- 2 Hitchens V, Haggard MP. Incorporation of parental suspicions in screening infants' hearing. *Br J Audiol* 1983;17:71-5.
- 3 Hall DMB, Hill P. When does secretory otitis media affect language development? *Arch Dis Child* 1986;61:42-7.

SIR,—The leading article by Mr A G D Maran and Ms Janet Wilson (20 September, p 713) concludes that glue ear before the age of 2 is probably not the cause of language and hearing disorders. This may or may not be true in normal children with episodic glue ear in the first two years. Speech development in children with cleft palate, however, is clearly impaired by their major physical abnormality and will be doubly impeded by the almost universal finding of glue ear in these children¹ owing to dysfunction of the eustachian tube from birth.² This is a persistent rather than fluctuating conductive hearing loss and requires active intervention by myringotomy and middle ear ventilation before the age of 2 and before the palate is repaired (usually at 10-16 months in the United Kingdom) in order to give these children the best chance of speech and language development,³ both of which are delayed in this group.⁴ The same might be argued for other handicapped groups known to have a high incidence of glue ear, such as children with Down's syndrome.⁵

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- 1 Paradise JL, Bluestone CD, Felder H. The universality of otitis media in 50 infants with cleft palate. *Pediatrics* 1969;44:35-43.
- 2 Bluestone CD. Eustachian tube obstruction in the infant with cleft palate. *Ann Otol Rhinol Laryngol* 1971;80(suppl 2):1-30.
- 3 Paradise JL. Management of middle ear effusion in infants with cleft palate. *Ann Otol Rhinol Laryngol* 1976;85(suppl 25):285-8.
- 4 McWilliams BJ, Morris HL, Shelton RL, *et al*. Speech, language and psychological aspects of cleft lip and cleft palate: the state of the art. *ASHA Reports* 1973;9:1-68.
- 5 Schwartz DM, Schwartz RM. Acoustic impedance and otoscopic findings in young children with Down's syndrome. *Arch Otolaryngol* 1978;104:652-6.

Use of molar units for drugs and toxins

SIR,—Professor L F Prescott has argued (13 September, p 696) that it is arrogant for clinical biochemists to attempt to force a change to molar units without wide consultation. Surely Professor D N Baron's leading article (5 July, p 2) was just one part of that consultative process. There has been considerable discussion in scientific societies and the literature about this proposal and clearly there are divisions of opinion. The present system, however, is far from satisfactory. Mass units are used for reporting in some hospitals while molar units are used in others and rarely are the two systems reported side by side. I have seen and heard of a number of cases where incorrect clinical decisions have been taken because the clinician has misunderstood the units in which the blood concentration of drugs was reported. This does not seem to me to be an argument for putting the clock back but one in favour of standardisation. We heard most of these arguments when SI units were introduced for natural substances but very few difficulties were encountered in practice.

I am not in favour of prescribing in molar units; like Professor Prescott, I see too many problems at present to allow this to occur. Nevertheless, it is wrong to say that it would be impossible to cope. As pharmacologists we use molar units extensively when talking about the basic aspects of pharmacology, not only in concentration but also in dosage terms. Equally there are very few drugs and toxins that we measure in biological fluids whose molecular weight is not known. What is surely required

now is sensible debate between all parties in the interests of patient care.

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Computer aided diagnosis of acute abdominal pain

SIR,—As a result of the trial by Dr I D Adams and others the computer aided diagnosis of abdominal pain is now a way of life at Whipps Cross Hospital, where I was a casualty officer. I suggest that the projected savings to the NHS using this system could be further increased by dispensing with the machine itself.

A computer can be good only if sufficient information can be fed into it. This computer program will not make a useful gynaecological differential diagnosis since it does not ask enough questions. Similarly, it does not have any interest in the state of the ears, throat, or hernial orifices and therefore cannot diagnose mesenteric adenitis in children or even a strangulated hernia. If it were a medical student it would surely fail its finals.

The report claims an almost 50% drop in negative laparotomies, which after all are not performed by casualty officers or computers. The explanation is that "more accurate diagnosis by the first doctor to see each patient seems to have led to a higher diagnostic accuracy on the part of more senior doctors."

In fig 3 there seemed to be an initial improvement in the steepness of the learning curve of doctors using "forms, computers, and feedback" over those using "forms and feedback" alone, but by the last three months there was no difference in the groups. At Whipps Cross the processing of forms has been shifted from the doctor to a clerk. I believe that this will result in an ironing out of this early steep learning phase by cutting down the length of time the doctor has to spend thinking about his patient. The doctor may learn quicker with the computer in the early months but soon becomes a better diagnostician, making it redundant in the later months.

The project is used by motivated consultants who give their juniors feedback not only on their diagnostic accuracy but also on their "compliance." These may be regarded as important points when writing references. The diagnostic accuracy is not directly due to the computer but due to its feedback acting as a "policeman of the abdomen," encouraging a more careful approach to the management of abdominal pain.

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SIR,—The results obtained by Dr I D Adams and others in the diagnosis of acute abdominal pain are impressive but they raise points which the authors do not address (27 September, p 800). Firstly, how is it that the better correct diagnostic decision making by junior staff flows on to better management by more senior staff? Secondly, who really sees and decides on the fate of a patient with acute abdominal pain in the district general hospital in the United Kingdom? It is not clear who is the doctor making the final decision on which the management of the patient depends and whether this changed as a result of the instigation of this study.

In an admittedly small series of 125 consecutive patients in a study of the use of laparoscopy in decision making in the acute abdomen we achieved