LETTERS TO THE EDITOR

Changes in asthma prevalence

Prevalence of asthma symptoms and percentage fall in peak expiratory flow rate (PEFR) with exercise in 1973 and 1988

|----------------|---------------|---------------|-----------
|                | %             | %             | %         |
| Asthma ever    | 5-5           | 12-0          | 118       |
| Wheeze ever    | 17-0          | 22-3          | 31        |
| Wheeze in the past 12 months | 9-8          | 15-2          | 55        |
| >45% fall in PEFR on exercise | 0-4       | 1-3           | 238       |
| 45-86% fall in PEFR | 0-5       | 1-0           | 111       |
| 35-26% fall in PEFR | 1-1        | 1-7           | 60        |
| <25% fall in PEFR | 98-0       | 95-9          | 2         |

Nutrition in cystic fibrosis

Str,—In response to Dr David’s excellent and comprehensive review of current management in cystic fibrosis,1 we would like to report our own experience in dealing with nutritional aspects of the disease. This is important as malnutrition may affect pulmonary function,2 and nutritional repletion not only improves linear growth but also can be shown to produce a reversal in the trend for deteriorating lung function3 and aid immune competence.4 We have not found any advantage in the use of protein hydrolysates for infants requiring formula feeds. Although on paper such feeds composed of amino acids/peptides, glucose polymers, and medium chain triglycerides should be absorbed without added pancreatic enzyme supplements, in our experience diarrhoea is better controlled and weight gain enhanced with supplements. Casein hydrolysates that have a high carbohydrate content and relatively low energy density (2-814 kJ/ml or 0-67 kcal/ml) offer little benefit over cheaper standard baby milks of similar or higher energy density that are readily supplemented with glucose polymers or carbohydrate/fat mixtures to achieve energy densities of 3-56-4-2 kJ/ml (8-1-0 kcal/ml). We have also found overnight enteral feeds useful in maintaining or improving nutrition. Many centres are, however, reluctant to employ nasogastric feeding because of patient resistance, the need for intermittent nasogastric feeding to prevent grossly distended stomachs, and the use of a microsphere pancreatic enzyme preparation. She had chronic lung disease (forced expiratory volume in one second <30%) and an enteric aerogenic colonisation. After admission with an increased productive cough and weight loss a fine bore ‘Silk’ nasogastric tube (Silk and Corsafe French gauge 56 cm; E Merck Ltd) and Kangaroo 330 enteral feeding pump (Sherwood Medical) were used to deliver an overnight (10 hour) feed (Fortisom Energy Plus; Cow and Gate) which, after four days, provided 65% of her recommended daily intake for energy and 86% of recommended daily intake for protein (6370 kJ) (1500 kcal) and 50 g protein. Pancreatic enzymes (Pancrase, Cilag) were given at the start and end of the feed period only in a dose equivalent to that used with main meals. Although the patient had a chronic cough the tube, which was left in situ throughout the feed period, was well tolerated. Diarrhoea did not occur despite the use of a ‘non-elemental’ feed and weight gain was rapid (see figure). After a two week course of intravenous antibiotics the patient was discharged to continue overnight feeds at home. An increase of 10.2 kg was achieved over five months.

Continuous overnight nasogastric feeding without frequent enzyme supplementation appears a simple solution to nutritional problems.5

1 Anderson HR. Is the prevalence of asthma changing? Arch Dis Child 1989;64:172-5.

Effect of supplementary nasogastric feeds on weight gain. Feed period is indicated by arrows.


Effect of supplementary nasogastric feeds on weight gain. Feed period is indicated by arrows.

deficiency in patients with cystic fibrosis, which can easily be performed in the home.

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3 Shepherd RW, Holt TL, Thomas BJ, et al. Nutritional rehabilitation in cystic fibrosis:
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Parent-specific evaluation of growth

SIR.—We have read with interest the recent
paper by Dr Sorva and colleagues, concerning
reference data for stature of children condi-
tional upon the statures of parents and that of
the child at 1 year of age.1 We are troubled by the
use of data of unknown validity and relia-
bility as the basis of reference data. Common
protocols were not used for measuring child-
ren, it is unknown whether recumbent length
or erect stature was measured at the youngest
ages, and all parental and some of the child
statures were self reported rather than mea-
sured. Each of these deficiencies will, to an
unknown degree, add random error and
perhaps bias. We and others have documented
appreciable bias as well as increased random
error of parent statures.2 More practically,
the added random error will attenuate corre-
lations and regression coefficients that are the bases of the equations estimating
standard deviation scores for children. While
the authors acknowledge their less than
perfect data, there remains concern over the
validity of the findings.

The final equations for children (their table
2) are to be applied irrespective of the age of
the child. In our investigations on the Fels
Longitudinal Study, we found that the pattern
of parent-child relationships for stature
changed so greatly across age that it was
necessary to consider age.3 This can be appre-
ciated from the figure, which presents the
regression coefficients (b) of standard devia-
tions in length (birth to 2.5 years) and stature
(3.0 to 18 years) of boys, relative to the mid-
parent stature (average of maternal and patern-
al statures). Clearly, there is systematic and
non-linear age covariance in the midparent-child
statural relationship scaled according to
standard deviation scores in child stature.
Unfortunately, Dr Sorva and colleagues do not
provide any conventional summary or diagnostic statistics allowing evaluation of
the adequacy of fits for the equations in their table
2 across the entire age range; those relating to
final stature in their table 3 are insufficient for this
purpose.

We have provided previously a method of
adjusting recumbent length or stature of child-
ren (birth to 18 years) according to parental
statures.1 All measurements of children and
parents were taken under standardised re-
search conditions. The parent-specific adjust-
ments were specifically normed relative to the
internationally recommended reference data
from the US National Center for Health Sta-
tistics, and US national estimates of parental
statures. Exact estimation equations, com-
puter programs,4 and simplified tables for
clinical ready reference5 have been presented.
We agree with Dr Sorva that a valid method of
parent-specific evaluation of stature in child-
ren provides important clinical tool to separate the normal genetic contribution of
parental stature to stature of children from
other factors that affect stature such as malnut-
rition and disease.

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4 Himes JH, Roche AF, Thissen D, Moore WM. Parent-
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The taste of milk

SIR.—One in four bottle fed babies change
their milk formula in the first weeks of life,
often in response to non-specific symptoms.1
This tendency is common in Portugal too.
Often, the substituted milk has a similar com-
position to the original, but is a different
brand. In this situation, mothers often express
satisfaction with the switch to the new milk.
I cannot help reflecting that three out ofour bottle fed babies accept, without reluc-
tance, the very same type of food with no
variation in composition (or presumably
taste) six times daily during early infancy. This
monotony, which is contrary to the most basic
rule of dietary habits, might just prove too
much for one in four babies—at least we
should give the matter some further thought.
I presume that the evolution of the taste
learning process has developed through breast
feeding. It is well known that the composition
of maternal milk is subject to important varia-
tions, which are part influenced by the materi-

dal diet. Are there similar variations in the
taste of maternal milk, thereby making meal-
times somewhat more exciting for babies?
Might such variations in taste, during early
infancy, facilitate weaning and the natural
appetite for a varied diet in toddlers? Con-
versely, is there any evidence that bottle feed-
ing is associated with a narrow ‘taste span’ in
toddlers?

For those babies who are not breast fed,
perhaps there is nothing wrong with encourag-
ing various brands of milk according to the
whim of babies (and their mothers).

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Nutrition in cystic fibrosis.

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