

that beta-blockers do not influence the six-week mortality in suspected myocardial infarction; that is why we refrained from drawing such a conclusion in the paper. We did, however, feel that as the outcome at one year was almost identical in the three groups our colleagues would be likely to conclude that the early administration of atenolol or propranolol would not influence the longer-term survival of their patients with suspected infarction.

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Ketotifen in adult asthma

SIR,—Your correspondence columns continue to contain letters about the new anti-asthmatic drug ketotifen. While it may be of interest to some doctors what other clinicians' individual experiences are in a few patients, it is hardly evidence of efficacy or safety of a new treatment in 1980—only a well-conducted, formal, double-blind controlled trial can provide this.

My concern, however, is when uncontrolled and unsubstantiated evidence is used to compare a new treatment with a well-established and safe treatment. I refer specifically to the last paragraph of Dr S G Spiro's letter (22 March, p 862), in which he claims a comparable incidence of side effects from ketotifen and inhaled sodium cromoglycate. It is not clear from the letter whether this evidence is based on the 413 subjects quoted or another series of trials—if so, which trials and in which patients, and what was the nature of the side effects?

Our own experience with trials of inhaled sodium cromoglycate is that, while a number of patients report transient coughing and throat irritation as a consequence of inhaling a dry powder, this can hardly be called a side effect that is likely to influence continuing treatment when therapeutic benefit occurs. If the 40% quoted by Dr Spiro includes a substantial number of "side effects" of this type, then I think that it is misleading to equate them with the drowsiness reported by ketotifen administration.

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* * * We sent a copy of this letter to Dr Spiro, whose reply is printed below.—Ed, *BMJ*.

SIR,—The data included in my letter (22 March, p 862) summarised the total number of side effects, both specific and non-specific, recorded from 413 patients taking ketotifen and 78 patients taking sodium cromoglycate in a series of 13 studies organised by Sandoz Limited. All these studies were controlled, against either placebo or sodium cromoglycate, and were blind. Dr Edwards is not justified in calling these data uncontrolled or unsubstantiated. It is, however, probable that many of the side effects volunteered by those taking sodium cromoglycate were of a non-specific nature not necessarily related to the drug, while the commonest side effect with ketotifen was drowsiness in 12.6% (52) patients, which was severe enough to withdraw the drug in 16.

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Sulphasalazine in rheumatoid arthritis

SIR,—Dr D W James and Dr Jane S Reeback criticised (22 March, p 861) Dr B McConkey and colleagues (16 February, p 422) for failure to submit either sulphasalazine or dapsone to a placebo-controlled trial in rheumatoid arthritis. I want to point out that a preliminary analysis of a double-blind trial comparing dapsone and placebo in rheumatoid arthritis was recently presented.¹ The trial demonstrated significant differences at 14 weeks between the groups with respect to clinical measurements and falls in acute phase reactants.

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¹ Swinson DR, Jackson L, Zlosnik J. *Abstracts of Ninth European Conference of Rheumatology*. Wiesbaden, 1979:51.

Growth and growth charts

SIR,—Dr H B Valman's series of articles "The first year of life" is a refreshing approach to our understanding the problems of the newborn baby and its first year of life. However, we would like to make some comments on his recent contribution relating to growth and the use of growth charts (9 February, p 381).

The first concerns the measurement of length. Dr Valman writes: "Length (or height) is difficult to measure accurately in a very young baby. . . ." Unfortunately this statement perpetuates the myth, widely held by doctors and nurses, that it is difficult to measure a baby's length. This is not so. With remarkably little training crown-heel length can be measured accurately with a length measurer (neonatometer) specially designed for the young infant.¹ Unfortunately many babies do not have length measured at birth. Some are inaccurately measured by a tape measure stretched from head to heel. Surely it is time to encourage the accurate measurement of length as part of the newborn examination. For too long has length at birth been neglected. It is as important a baseline measurement of growth as is weight and head circumference.

The second point relates to the use of growth charts giving an "early warning of obesity." Referring to one of his weight charts showing upward centile crossing, Dr Valman comments: "If the mother had been shown the growth chart at the age of 4 months she might have been able to have prevented the phenomenon seen at 6 months." It is not sufficiently realised that over the first year of life there is a considerable upward and downward centile crossing of distance weight curves as the infant leaves behind intrauterine influences on its growth and begins to follow its own genetically determined course. We have recently studied distance weight curves of 66 normal-term babies over the first year. Only eight (12%) kept approximately in the same channel in which they were born. Eighteen (28%) showed downward centile crossing. The majority (40—that is 60%) showed upward centile crossing. The greatest amount of weight shift took place in the first three months after birth—the time when mothers most commonly bring their babies to the health clinic for routine weighing and other health advice. We are uncertain about the significance of the high incidence of upward centile crossing. It is unlikely that all these babies were becoming obese. Instead we suspect that it

might in part reflect secular changes in patterns of weight gain.

The weight standards widely used in paediatrics are derived from cross-sectional analysis of weights at various ages² so that considerable caution must be exercised in evaluating an *individual* weight pattern against such standards, particularly at a time of shifting growth. A lot of anxiety can be caused by drawing too much attention to upward centile crossing. In recent years one of us (DPD) has seen many wholly breast-fed infants showing this weight pattern. Could these breast-feeding mothers have prevented this phenomenon? We believe not. In evaluating a pattern of weight gain it is always wise to ask about feeding. But if a baby seems to be sensibly fed no further action should be taken.

The use of growth charts is fundamental to monitoring health in infants and children. Clear guidance must be given to doctors and nurses as to how they should be used.

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¹ Davies DP, Holding RE. *Arch Dis Child* 1972;47:938-40.

² Tanner JM, Whitehouse RH, Takaishi M. *Arch Dis Child* 1966;41:454-71.

SIR,—Dr H B Valman's remark on the inaccuracy of tape measures (9 February, p 381) prompts us to report on a study we made at the beginning of this year. The study confirms the dangers mentioned by Dr Valman but, contrary to what he says, we found linen tapes shrink—as do the glass fibre tapes which he recommended for head measurement.

We undertook a survey of all 47 tape measures used in this hospital. The tape measures were five-foot (152-cm) tapes of varying age and of two types: one was a woven linen tape and the other was a plastic tape sealed over a fibre-glass backing. Some of both types of tape were found to have shrunk up to 6.4 cm in length. The tapes were used to measure a 40-cm length on a steel tape (the 50th percentile head circumference of a 3-month-old girl).¹ Half the tapes measured this as over 41 cm. Twenty per cent of the tapes measured this as over 41.6 cm (the 90th centile head circumference of a 3-month-old child).

We found that the shrinking of all the tapes increased with the degree of wear or if they had been sterilised by soaking in 1% aqueous Hibitane (chlorhexidine), which was the method of tape sterilisation used in the neonatal and infant wards. To avoid this error we suggest that a new disposable tape, or a steel tape, should always be used for clinical measurement.

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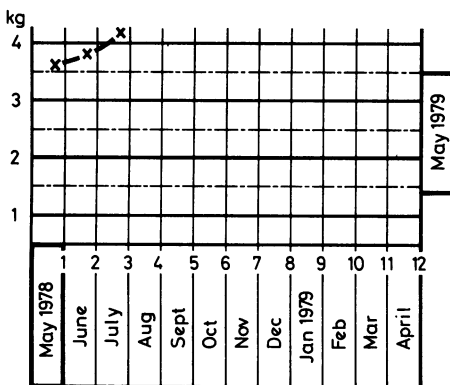
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¹ Gairdner D, Pearson J. *Arch Dis Child* 1971;46:783-7.

SIR,—Growth charts are an invaluable aid in following the progress of young children. It is most appropriate that Dr H B Valman should devote a whole article of his useful series to

this topic (9 February, p 381). Careful graphic representation of a series of growth measurements can allay unnecessary anxiety and sometimes makes expensive investigations redundant. Much experience of charting weights has come from tropical countries,¹ and some aspects are worthy of consideration for the NHS.

Some form of calendar or dates recorded on the horizontal time axis of an individual's graph saves much time and avoids mistakes. It is a considerable chore to calculate the age of each child in weeks and months on every visit to the clinic. The simplified method developed by Professor D C Morley when he was working in West Africa has stood the test of time.² This uses a series of boxes along the base of the chart, each one representing one month, and the first box on the left is the month of birth (see accompanying figure). This system



Growth chart showing the calendar method of recording time on the horizontal axis (the month of birth is in the box with heavy outline).

could easily be modified to take account of the precise date of birth, and also of pre-term and post-term babies.

Events which affect growth and health can be recorded on the weight chart. Dr Valman gives an example of this in his figure *f*, with the introduction and exclusion of gluten from the diet. By recording illnesses it is easy to see their relationship to growth, and this single record indicates the main points in the medical history at a glance, instead of requiring a search through pages of notes and letters.

The World Health Organisation has recognised the importance of such personal growth charts in primary health care for children.³ The individual weight card is an example of an instrument that has largely been developed in tropical countries, but could with benefit be more intensively used in many temperate countries.

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¹ Morley DC, Woodland M. *See how they grow*. London: Macmillan, 1979.

² Morley DC. *Trop Geogr Med* 1968;20:101-5.

³ World Health Organisation. *A growth chart for international use in maternal and child health care*. Geneva: WHO, 1978.

Distinguishing direct and indirect inguinal hernias

SIR,—The findings of Mr D N L Ralphs and colleagues that a proportion of inguinal hernias cannot preoperatively be accurately defined (12 April, p 1039) confirm an impression that many experienced surgeons will have already

gained and acknowledged. However, the authors' conclusion that the degree of inaccuracy is such that the whole exercise is pointless is not supported by their discussion. There are several unmentioned reasons why attempting to distinguish the two clinically is of value.

Firstly, medical students are more likely to understand the pathological anatomy of inguinal hernias if they witness the differing signs. These will be clear cut in only a proportion of cases, but this is surely true of many other clinical signs and yet does not detract from their value. Secondly, surgical trainees at the start of their careers often have difficulty finding and isolating the hernial sac. The expectation of finding one particular kind, which is shown to be correct in a majority of cases, is often of considerable assistance, with benefit to the patient by way of reduced dissection and length of operation.

I suggest that these factors are of more than little relevance and in no way diminished by this study.

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Identification of tablets

SIR,—I should like to reiterate Dr J D W Whitney's clear and concise recommendations about how best to handle the burgeoning problem of identifying unknown tablets by imprinting the tablet itself (22 March, p 867). I would remind your readers that more than 15 years ago we documented the inaccuracy and inefficiency of attempting to differentiate tablets by their physical characteristic.¹ Fifteen minutes failed to achieve even a 60% accuracy among a relatively small sample of unknowns. Some three years later we documented that using an imprinted code on tablets or capsules permitted over 95% to be identified in less than 15 seconds.² Today, in the United States 81 of 83 major manufacturers illustrating their products in the *Physician's Desk Reference* utilise an imprinting system on one or more of their products—a fortunate development in an era of generic manufacturers producing deceiving "look-a-likes." Within the fortnight our State of Washington joined South Dakota in legislating that henceforth all legend (by prescription) solid medication forms sold here would henceforth be imprinted for identification purposes. Other states are expected to join us shortly. It is good to catch up with Polo mints.

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¹ Caldwell JG, Shoman AF, Hurst GB, Robertson WO. *JAMA* 1964;187:951-4.

² Symonds JK, Robertson WO. *JAMA* 1967;199:664-5.

Inseminators as vectors of Salmonella dublin

SIR,—I was interested to read Dr Eirian Williams's paper (22 March, p 815) on veterinary surgeons as vectors of *Salmonella dublin*. It is perfectly true that no proof exists of venereal spread and the disease is common in dairy herds even when breeding is by artificial insemination. This latter aspect is not surprising to those of us who have taken an interest in artificial insemination and breeding

dairy cattle. If the veterinary surgeon can be a vector of the disease, then it is even more probable that the technician who performs the artificial insemination is also a vector.

In order to inseminate the cow the inseminator places his gloved hand deep into the rectum of the cow and grasps the cervix through the rectum and vaginal walls. He then guides the cannula ("insemination gun") into the cervix. The gun is frequently contaminated with faeces. There is frequently a hole in the glove. On numerous occasions there is more than one cow to inseminate, and without changing his glove the inseminator proceeds to inseminate other cows. With the ability to synchronise heat with prostaglandin $F_{2\alpha}$ it is becoming more common for a number of cows to be inseminated at the same time, with the possibility of cross-infection.

Inseminators employed by the milk marketing boards and artificial insemination co-operatives move from one farm to another with much greater frequency than veterinary surgeons. I have so far been unable to find any reference to itinerant inseminators being tested for *Salmonella* antibodies, although this has been investigated not only in veterinary surgeons but in farm workers and butchers.

The possible danger of the milk marketing boards' inseminators being vectors of salmonellas, with its consequences, has frequently been ignored and the boards boast of their health record with no absolute evidence that this is in fact justified. The Ministry of Agriculture, Fisheries and Food has also ignored this possible danger and, so far as I know, no investigation has been performed.

The introduction of salmonellas on to a farm is frequently a mystery, as Dr Williams describes, although animals other than domestic animals can be infected. Nevertheless, this gap in our knowledge should be closed, as deaths have occurred from salmonella-infected milk and recognition of this possible method of transfer of infection should be accepted by the DHSS and the Ministry of Agriculture.

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Advice about malaria prophylaxis

SIR,—On a recent tour of a malaria-infested area—the Delta region of Lower Egypt—about half a dozen of the three dozen travellers were taking no antimalarial drug despite very definite advice that it was necessary given by the tour operators. They were intelligent and responsible people who had been told by their doctors that antimalarial drugs were quite unnecessary, and naturally were worried when they learnt of the risk they were taking. Fortunately a whip-round raised enough pyrimethamine to start them with double doses a few days before they could revisit their doctors.

It is interesting to speculate on the liability of a doctor who blatantly advises against accepted prophylactic practice for no particular reason beyond his own perversity. Some experience of the medical advice given by foreign tour operators suggests that this is soundly based and that doctors are unwise to countermand it without any special reason for doing so.

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