Schools' BCG vaccination programme

SIR,—Mr J A Stilwell's article (24 April, p 1002) on the costs and benefits of the schools' BCG vaccination programme should provide a valuable basis for discussion to those authorities operating BCG vaccination schemes. But the cost that he assigns to one case of tuberculosis is a gross underestimate. Among other factors that he has omitted from his equation are the expense of the laboratory support and the cost of surveying those at risk after the diagnosis of one case of tuberculosis, which may be of the order of £500 when the patient attends a comprehensive school.

Mr Stilwell calculates the cost of treatment from figures given in a paper by Springett,¹ whose intention was to indicate comparative costs rather than the realistic charge to the NHS. In the estimate of £264 for each patient's drugs I calculate that £4 has been allowed for a year's supply of isoniazid; this can only be the cost of the tablets from the largest hospital pack and does not include any factor for dispensing. Mr Stilwell omits consideration of later morbidity after the initial acute illness and dismisses mortality by suggesting that it would not occur in the alternative selective programme; but a comparison with alternative schemes is quite a different equation.

The economic results of illness are inadequately costed; interruption of work at this age can mean the loss of a job or even of a career. If these effects cannot be quantified in monetary terms they are still an essential element in the argument. As indeed, on the other side, are the side effects of the vaccination both physically to the individual and collectively in its impact as an intrusive procedure in the school community. The conclusion of the paper may well be capable of being substantiated, but the factors in the analysis do require more careful examination and it must not be assumed that because a selective programme is restricted to a smaller population it is thereby automatically cheaper to operate.

A S HARRIS

Community Health Branch,
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¹ Springett, V H, *Practitioner*, 1975, **215**, 480.

Hazards of monocomponent insulins

SIR,—We were interested to read the article by Drs A W Logie and J M Stowers (10 April, p 879). In drawing their conclusions from one poorly controlled adolescent boy who had a 36% reduction in insulin requirement when transferred from conventional to monocomponent insulin (Actrapid MC) they have given a misleading picture of the efficacy of the more

purified insulin and do not appear to have been aware of the manufacturers' instructions to reduce the dose to two-thirds of the original one when transfer is initiated.

At the children's diabetic unit at this hospital we have transferred a number of children from conventional to monocomponent insulin (see table). There was a mean reduction in total insulin requirement of 31% (range 7-52%). All the transfers were carried out under hospital supervision. There were no hypoglycaemic reactions. Although there was no comparable control group, their standard of control as judged by general well-being, routine urine testing, and random blood glucose estimations showed an improvement in all cases. Injection site hypertrophy was reduced in two of the four children in which it was present, and injection atrophy, present in one child, had disappeared within eight weeks. We have experienced no problems in the early follow-up period (3 weeks-4 months).

Drs Logie and Stowers's suggestion of 20% reduction in insulin dosage would not appear to be sufficient in the light of our own experience. The manufacturers advice to start at two-thirds the usual dose is a satisfactory initial guideline, but we must stress the difference in requirements of individual patients. In particular, children on large doses of insulin may achieve an even greater reduction and perhaps should be started on half their usual dose.

Far from being a hazard, transfer to a monocomponent insulin comes as a welcome reduction in the volume of injection required. The disappearance or reduction of injection site complications is an added bonus, especially to the fashion- and figure-conscious adolescent girl.

DEWI R EVANS
COLIN S SMITH

Alder Hey Children's Hospital,
Liverpool

SIR,—We read with interest the communication of Drs A W Logie and J M Stowers (10 April, p 879) on "Hazards of monocomponent insulins." In a recent communication to the British Diabetic Association we reported the results of changing over 22 long-standing diabetics (mean duration of insulin therapy 10 years), from daily bovine insulin (lente or PZI/soluble) to the monocomponent insulin Monotard MC. Initially a 30% reduction in daily dosage was made, but even so 5 out of the 22 patients experienced severe hypoglycaemic reactions immediately after change-over, and after three months these patients were taking less than half of their initial daily bovine insulin dosage. In four out of these five patients a difference in the affinity constants of their sera for beef and monocomponent pork

insulin was demonstrated. We are now reducing daily insulin dosage by half when changing patients from bovine to a monocomponent porcine insulin and subsequently increasing the amount of insulin depending on their glycosuria.

C M ASPLIN
M HARTOG

Bristol Royal Infirmary,
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Priority labels

SIR,—The Major Accident Review Committee in this area has been considering the use of coloured labels in order to establish the treatment priority of victims. We are aware that already some areas have established a colour code. We would therefore be most grateful to hear from any area using coloured labels in this fashion as to what is their priority code. We feel we would prefer to fall in with a consensus rather than merely set up our own, which may not perhaps be compatible with that being used in contiguous areas. I would be obliged for correspondence to me at the department of anaesthesia at the address below.

T DOWELL
Consultant Anaesthetist

General Hospital,
Chester Road,
Sunderland

Effect of posture on dental anaesthetic mortality

SIR,—Professor I Curson and Dr M P Coplans (17 April, p 958) argue from figures obtained from the Registrar General that there would be no improvement in mortality if the supine posture were adopted. They have kindly sent me their data, which need a small correction. There were in fact 10 deaths in ambulant patients in 1974, six of whom were (allegedly) supine and three were sitting (one case remains "not stated").

Their argument turns on the supine cases, of which they know only the number; they have no clinical information. I have this information, obtained in five of the cases directly from persons present during the dental treatment. Briefly, in two cases the patients were not supine. In two others, though the patients were supine during treatment, a sitting posture, at the start in one case and after the finish in the other case, may have contributed to the deaths. And two cases were too exceptional to have any bearing on the issue.

A mentally retarded boy suffering from a rare congenital disease recovered from the anaesthetic, administered at a London teaching hospital, but died later after a series of heart attacks.

A young man was accidentally given a very high concentration of carbon dioxide with the anaesthetic and his heart stopped. It was restarted but he remained a vegetable and died 4½ years later in 1974.

We should be chary about accepting evidence on posture from inquests, from which the Registrar General's data came. Witnesses are never cross-examined on posture, and the angle of tilt in a dental chair is deceptive. I have records of cases in which the coroner was told that the patient was nearly lying down when in fact he was at least semi-upright. And in a case a few years back it is clear from

Case no	Age (years)	Duration of diabetes (years)	Reason for transfer	Total dose conventional insulin (U/day)	Total dose monocomponent insulin (U/day)	Reduction (%)
1	13	3	Injection site hypertrophy; increasing dose of insulin	150	76	49
2	9	5	Injection site hypertrophy	40	24	40
3	12	11	Injection site hypertrophy; ketoacidosis	60	56	7
4	13	5	Recurrent ketoacidosis	72	52	28
5	13	3	Poor control; increasing dose of insulin	116	56	52
6	14	10	Ketoacidosis	44	32	27
7	16	10	Hypertension; proteinuria	56	40	29
8	16	3	Poor control	52	36	31
9	10	2	Injection site atrophy; poor control	52	40	23
10	16	8	Increasing requirement of insulin	88	64	27

statements of which I have photocopies that the dentist and his chairside assistant falsely represented to the coroner that the patient was horizontal.

It would be unsound on the basis of the above six cases to decry the horizontal position. I believe that the mortality would be substantially reduced if it were adopted or if at the very least all those engaged in treating dental patients under general anaesthesia or sedation were aware of the danger of a head-up tilt and exercised extreme vigilance whenever it was used.

I would gladly go through the evidence I have collected over the years with Professor Curson and Dr Coplans.

J G BOURNE

Nunton,
Salisbury, Wilts

Laparoscopy explosion hazards with nitrous oxide

SIR,—With reference to your correspondence (27 September, p 764, and 27 December, p 760) regarding laparoscopy explosion hazards with nitrous oxide, in our experience this is not substantiated. In the last 18 months we have done some 123 laparoscopies in the Medical City Hospital, Baghdad. We have done 16 sterilisations by tubal diathermy and not fewer than 12 cases where biopsies were taken from ovaries in cases of tuberculosis or for other reasons, where diathermy was used. In all our laparoscopy procedures we always used N₂O gas because CO₂ cylinders are difficult to obtain. We did not have any incident of explosion, and most of our patients stayed in hospital not more than 24 hours post-operatively, during which time no complications were reported. None of these cases were readmitted for any complications.

It seems to us that the hazard of explosion with N₂O is more theoretical than real.

S KHUNDA
K Y GHANIMA

Department of Gynaecology
and Obstetrics,
Medical City Teaching Hospital,
Baghdad

Foresight prevents blindness

SIR,—All practising ophthalmologists will welcome the selection of blindness as the focus of attention on this World Health Day, and your leading article (3 April, p 787) on this subject was timely, but it seemed to me that there were two serious omissions from the list of major causes of visual handicap. Firstly, there was no reference to the effects of age on the human eye. The long list of retinal, choroidal, and vascular degenerative conditions which inevitably deprive the aging patient of some degree of sight can scarcely be eliminated by attention to the social and nutritional factors mentioned in your editorial. On the contrary, the greater the expectation of life the greater the expectation of visual handicap.

The other omission which I found strange is the absence of any reference to blindness from leprosy. Informed opinion assesses the number of leprosy cases today at approximately 20 million, of whom 5% or one million are blind according to the usually accepted definition. Again we have the paradox that

because of the more effective therapeutic measures currently available a far greater number of leprosy sufferers have an expectation of life not far short of those not so afflicted, but unfortunately this merely makes many of them, especially lepromatous cases, candidates for progressive ocular and orthopaedic complications. It seems to me that it is right to draw attention to these two problems. While nothing effective can be done to prevent the ocular complications of senescence this is not true of those due to leprosy. My colleague and I have repeatedly drawn attention to the importance of the early recognition and treatment of the insidious blinding iridocyclitis found in leprosy together with the steps that should be taken to protect the eye when lagophthalmos and reduced corneal sensation are present.

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¹ Choyce, D P, and Hobbs, H E, *Leprosy Review*, 1971, 42, 131.

Self-help groups in the smoking problem

SIR,—As general practitioner and health visitor we have attempted on two occasions to set up self-help groups in our practice headquarters. Typewritten invitations were posted to male smokers, who were asked to come with their wives to form a discussion group.

Thirty couples were asked on the first occasion. Four couples and one unaccompanied man arrived. The dimensions and the significance of the smoking problem were carefully presented and then discussed. It was clear, however, that any further group meeting would have to be led by either the health visitor or the doctor. There were no volunteers for the position of secretary or organiser. Furthermore, it was apparent that if one of the smokers was to be appointed to be secretary he would not have the co-operation of the others. There was an impression that it was regarded as not respectable to discuss one's personal problems with other people who were not bound by confidentiality. The authority of the doctor or nurse was felt to be essential.

On the second occasion 30 invitations were sent. Five couples and two unaccompanied men arrived. The principle of group therapy was at once rejected by the meeting. Each member of the group looked at the problem from a different angle. It was pointed out that the middle class is already under considerable pressure and that there are sufficient meetings each week without adding another. "We are all busy people." Various individual reasons for not abandoning the habit were put forward and examined. It was apparent that those who had come were those with least addiction to tobacco. The meeting clearly felt that coronary disease being multifactorial in origin it was therefore illogical to concentrate on one risk factor. It was believed that all risk factors should be tackled, and this would widen the interest, appeal, and effect of any health campaign promoted by the practice. Once again there was no volunteer for the position of secretary and local activist even though it was agreed that each individual had the responsibility for his own health as well as for that of others.

Therefore the principles of self-help groups in the smoking problem seem not to be acceptable in a middle-class practice in Edin-

burgh. It was emphasised that any further meetings would require the presence of those with expert knowledge. It was felt that the campaign should be one for health in a positive sense and not against tobacco—in a negative sense. Perhaps most significant of all was the observation that the really heavily addicted people had stayed away.

Is this not, Sir, yet another example of the National Health Service doing least for those who most need its help?

DAVID ILLINGWORTH
JACKIE PEPPER

Edinburgh

SI units and blood pressure

SIR,—It was a great relief to read Professor F Gross's letter (27 March, p 772) stating that the International Society had resolved to abandon SI units in recording blood pressures. May I make a plea to go further and record it in centimetres and half centimetres. To cavil at a reading of 164/90 instead of 16.5/9 is not being scientific—it is mere preciosity.

This is of practical applicability in recent years when nurses have been trained and taught to record BP readings on bed charts when a rise to, say, 19/10 is not so alarming or disappointing to the patient as a recording in millimetres (and all patients scrutinise their charts whenever the opportunity presents itself—it would be unnatural not to do so). Surely medical science would lose nothing by this, but the art would certainly benefit.

S T H JENKINS

Aberystwyth

In defence of barbiturates

SIR,—With the recent circular from CURB (Campaign on the Use and Restriction of Barbiturates)—Are Barbiturates Obsolete? (March 1976)—I feel that it is time to rise to the defence of those much maligned drugs, which have been in continuous clinical usage since the turn of the century, and with particular regard to elderly patients.

It has long been customary to condemn the use of barbiturates in older people, and we are encouraged to prescribe the much more expensive benzodiazepines and phenothiazines instead. There is no disputing the wide field of usefulness of those drugs in treating insomnia, agitational confusion, and anxiety states in the oldish. But there are many patients who have been served very well by the time-honoured hypnotic butobarbitone (100-200 mg), while amylobarbitone (30-60 mg) remains a useful daytime sedative. There is also a very definite place for sodium phenobarbitone injections (100-200 mg) for confusional states, and it is also most useful as a supplement to pethidine and diamorphine in terminal states accompanied by pain and generalised restlessness and discomfort. Sodium phenobarbitone has the added advantage that it can be given by deep subcutaneous injection and in smaller bulk than promazine and chlorpromazine, a distinct asset in very thin old people with wasted muscles. It is also valuable where the hypotensive effect of intramuscular phenothiazines may be specially dangerous. And what of the traditional tab phenobarb and theobrom as