cure with primaquine is usually more difficult to obtain with the New Guinea-type strains of *P. vivax*.—I am etc.,

T. WILSON

Portstewart,
Co. Londonderry,
N.Ireland

Edrophonium in Diagnosis of Cholinergic Crisis

SIR,—While I agree with Dr. D. L. McLellan (22 September, p. 634) that the giving of 10 mg of edrophonium intravenously to a patient in cholinergic crisis may lead to further grave complications, what I would like to stress is that once the stage is reached where the clinician is not certain whether the patient is in myasthenic or cholinergic crisis he is so desperately ill, and anoxic, only emergency measures may save him.

Frequently when this stage is reached only junior staff are available and in this department we therefore teach that when the question of adequate oxygenation is in doubt, further drug treatment should be abandoned and the patient immediately intubated and positive pressure ventilation instituted. This measure is undoubtedly life-saving and gives the clinician a chance to sit back and review the situation. Our practice is to ventilate these patients for 48 hours, withholding all cholinesterase inhibitors. The drugs are then gradually restarted, and as a rule within 24-48 hours the patient may be weaned off the ventilator. Needless to say trained staff and the appropriate facilities should be available at all times in units undertaking the treatment of these patients.

In my opinion the appreciation of this principle of intubation, aspiration, and ventilation in these desperately ill patients has been the most significant advance in the management of these unfortunate sufferers in recent years.—I am, etc.,

M. J. LANGE

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Amyloidosis in Rheumatoid Disease

SIR,—I was interested in your leading article (29 September, p. 651) concerning extra-articular changes in rheumatoid disease, including generalized vasculitis, but I felt that the amyloid changes found at times in the arteries of those with severe or protracted disease merited further discussion. This occurrence has been recognized for many years in rheumatoid^{1,2} and related collagen disease. Heptinstall *et al*³ have reported its presence in granulomatous arteritis and my colleagues and I⁴ are now reporting a remarkable case of collagen disorder supervening after many years in a case of chronic granulocytopenia. In this case widespread amyloid change followed well-controlled treatment of the vasculitis with corticosteroids.

Widespread vasculitis may be regarded as the feature common to all collagen disorders and it is possible that the development of amyloid change in the vessels in any of them is chiefly due to protracted and severe disease. Of course it is in such cases that steroid therapy is now most likely to be given, and by prolonging life to give time for amyloid change to occur. Certainly it developed in my reported cases of rheuma-

toid disease in 1948, before steroid treatment was available.²—I am, etc.,

G. H. JENNINGS

Northchapel,
near Petworth, Sussex

- 1 Beattie, J. M., *British Medical Journal*, 1906, 2, 1444.
- 2 Jennings, G. H., *British Medical Journal*, 1950, 1, 753.
- 3 Heptinstall, R. H., Porter, K. A., and Barkley, H., *Journal of Pathology and Bacteriology*, 1954, 67, 507.
- 4 Jennings, G. H., Levi, J., and Reeve, J., *Journal of Clinical Pathology*. In press.

Estimation of Body Surface Area

SIR,—One can understand Dr. C. E. Blogg's (28 July, p. 235) difficulty in estimating body surface area (S.A.) in children from the formulae of Du Bois and Meeh. However, Costeff¹ has proposed a simple empirical formula for calculating approximate surface area in children based on a knowledge of body weight only. This formula is $S.A. (m^2) = (4W + 7) \div (W + 90)$ where W = weight (kg). Costeff claims that this formula is accurate over the range of weights between 1.5 and 100 kg. My clinical experience has shown this to be the case except in the presence of gross oedema, as in the nephrotic syndrome. The formula is extremely useful for estimating fluid requirements in the dehydrated child whose mother knows a recent weight.

The ideal method of estimating dosage in paediatrics is a moot point. Wood² states that there is general agreement that calculations of dosage based on body surface area provide the most reliable estimate of therapeutic dose. Nelson³ concurs in stating that many physiological phenomena are more closely related to body surface area than to age, height, or weight.—I am, etc.,

DENIS GILL

Department of Child Health,
Royal Children's Hospital,
Brisbane, Australia

- 1 Costeff, H., *Archives of Disease in Childhood*, 1966, 41, 681.
- 2 Wood, B. S. B., *A Paediatric Vade-Mecum*, 7th edn. London, Lloyd-Luke, 1970.
- 3 Nelson, W. E., ed., *Textbook of Pediatrics*, 9th edn. Philadelphia, Saunders, 1969.

Psychiatric Nurse as Therapist

SIR,—We are glad that Dr. M. T. Haslam (1 September, p. 500) raised his misgivings about our article (21 July, p. 156) as they are probably shared by many people and it is useful to bring the issues out into the open.

We do not think that doctors need worry about ever being short of work as a result of nurses developing a more therapeutic role. The rise of physiotherapists, occupational therapists, social workers, and others has improved the quality of patient care but has hardly made doctors redundant. There is more than enough work to swamp everybody in the health professions for the foreseeable future. The demand for treatment far exceeds the supply, and at a time when many patients are being denied effective therapy for lack of therapists there is an urgent need to make treatment available to more people who can benefit from it.

Nurse therapists are not being trained to replace doctors—naturally, many years of medical training cannot be compressed into 18 months. The nurse-therapists have been trained to exercise specialized therapeutic skills for which prolonged medical training

would be largely redundant. Nor do we consider that a person with an academic training would wish to spend a substantial portion of his time on skills which do not represent a wide range of the potential for which his training fits him. The doctor would deploy his time more effectively as consultant to a team. Nurses have as strict an ethical code as doctors but require much less training than medical consultants or clinical psychologists.

Far more patients can be offered effective treatment by teams of this kind, the majority of whom are nurses, together with a psychiatrist and/or psychologist. The cost of treatment per patient is far less with such teams than where treatment is given mainly by the doctor or psychologist. The lower cost results from shorter training periods for nurses as much as from their lower pay. If Britain is to offer any hope of alleviating most of those neurotic disorders which can respond to newer psychological methods there is a pressing requirement not only for many more nurse-therapists, but also for more consultant psychiatrists who are qualified to supervise teams which include such therapists. It would be unfortunate and counterproductive if the ability of nurses to undertake therapy is taken to mean a need for fewer doctors. In fact the opposite is the case—if treatment services are to be extended, more doctors are needed to lead treatment teams, which cannot function without them, but of course proportionately more nurses than doctors will be required, as always. Adequate delivery of services requires careful development of workers of varying skills, some with shorter and others with longer training, requiring less or more supervision—but supervision, as Dr. M. J. C. Thompson (8 September, p. 545) rightly insists, that must be informed and interested. The nurse-therapists whose work we reported are shortly to carry their skills to other settings in which this point will be investigated.

Psychiatric nurse-therapists can play a valuable therapeutic role with psychotic as well as neurotic patients (as Dr. T. Lear points out (29 September, p. 69), but this field was outside the scope of our research, which was directed to those adult neurotic problems which can usually be treated successfully in fewer than 30 sessions. Such include many marital and family problems, which the nurse-therapists have dealt with skilfully after a year's training.

The numbers required to service the whole of Britain cannot be projected until detailed epidemiological and cost-effectiveness studies have been completed. With adequate personnel available, treatment of neurotic disorders in their acute phase might well reduce the prevalence of chronic problems, which form such a burden on the social services at present. Preventive psychiatry might then be more realistically attainable.—We are, etc.,

ISAAC M. MARKS
J. CONNOLLY
R. S. HALLAM

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London S.E.5

Suffocation in Epilepsy

SIR,—A year or two ago Dr. H. J. A. Longmore and I reported¹ the deaths of two of

our epileptic patients who died during sleep. Both were found with their faces buried in their pillows and postmortem examinations confirmed that they had died of suffocation, presumably in the course of a grand mal seizure. Subsequently three further cases from different parts of the country came to our notice.

Since these deaths usually occur in the home, information about them is difficult to acquire, though such an event, with its inevitable heart-searchings and background of tragedy, is not readily forgotten. In an attempt to determine the frequency of suffocation in their pillows as the cause of death in these unfortunate patients, therefore, the 48 general practitioners in Dumfriesshire were circulated to find out whether they had knowledge of any such cases in the past 10 years. All the questionnaires were returned and two further cases were identified. Thus in 10 years, in a population of about 89,500, four such cases had occurred, or, if this incidence was typical, over 20 cases each year in Scotland or 200 in the U.K. All but one of the seven victims identified were young or middle-aged males.

What of the prevention of this unfortunate complication of grand mal epilepsy? The obvious solution would seem to be the provision of some kind of smother-proof pillow such as was introduced some years ago for babies. As a result of our original report¹ such pillows have already been introduced to a hostel in Edinburgh for epileptic women, while the Epileptic Institute in Heemsde have taken this precaution for some time. In none of the cases so far identified was such a pillow used, and study of this series of cases would suggest that provision of suitable smother-proof pillows could prevent the occurrence of further cases. In this book *Epilepsy and Convulsive Disorders in Children* Bridge² makes the recommendation, referring presumably to children, that "no epileptic patient should sleep on a pillow or soft mattress."

So far as I am aware the only manufacturers prepared to supply such pillows are Melco Products Ltd., of Tottington, whose experimental product made of polyether foam is developed from their Divine baby pillow. Their pillow is washable and is relatively cheap.—I am, etc.,

JOHN B. WILSON

Lochmaben, Dumfriesshire

1 Longmore, H. J. A., and Wilson, J. B., *Lancet*, 1970, 2, 782.

2 Bridge, E. M., *Epilepsy and Convulsive Disorders in Children*, New York, McGraw Hill, 1949.

Delayed Drug-induced Dystonias

SIR,—The production of abnormal dystonic movements by phenothiazines and butyrophenones commonly occurs in general medical and psychiatric practice. Such reactions may be very unpleasant for the patients, yet may not be recognized for what they are, even by experienced medical and nursing attendants, especially when the onset of symptoms occurs some time after the administration of the drug. Akathisia, for example, often starting after the causative drug has been taken for some time, may not be reported by the patient, who does not associate that curiously uncomfortable sense of restlessness with his tablets. If reported, it may be mistaken by the doctor for simple

agitation, leading to an increase in the dosage of the very drug responsible for the symptoms.

With recent months I have seen two separate and dramatic cases of acute and severe drug-induced torsion dystonias and oculogyric crises which were not initially recognized by the nursing or junior medical staff. Both cases occurred after suicidal young male patients had been given a single dose of 15 mg of haloperidol with 10 mg of procyclidine as an accompanying anti-Parkinsonian agent. They were well sedated and comfortable for the rest of the day, but in the afternoon of the following day began to develop severe, painful, and frightening reactions, with dystonic spasms and posturings of the neck, trunk, and limbs and marked oculogyric movements. One boy assumed a position of opisthotonos and the other showed mouth movements resembling marked *schnauzkrampf*. As no drugs had been administered that day, the possibility of a drug reaction was not considered by the staff, who regarded them as probably hysterical and attention-seeking responses to anxiety. In each case, called to the patient, I found it possible to relieve all symptoms easily and within two minutes by administering 10 mg of procyclidine intravenously.

Both patients had a history suggestive of minimal brain damage earlier in life. One boy described an earlier episode when he had developed a similarly severe oculogyric crisis some days after receiving an intramuscular injection of fluphenazine and procyclidine. This episode had been similarly unrecognized

when he sought help at a teaching hospital casualty department.

It would seem, then, that some patients are especially sensitive to the dystonic effects of phenothiazines and butyrophenones, and sufficiently so to produce an acute dystonic reaction more than 24 hours after the drugs have been given and after the protective effects of an accompanying anti-Parkinsonian agent have obtained.

—I am, etc.,

MICHAEL A. SIMPSON

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Hamilton, Ontario

The Point of the Lancet

SIR,—In your recent eulogy of the *Lancet* (29 September, p. 680) on the occasion of its 150th anniversary celebrations I was disappointed but not particularly surprised to notice that you omitted the following phrase from the preface to the very first number, published on 5 October 1823.

"We shall exclude from our pages the semibarbarous phraseology of the Schools, and adopt as its substitute, plain English diction. In this attempt we are well aware that we shall be assailed by much interested opposition. But, notwithstanding this, we will fearlessly discharge our duty. We hope that the age of Mental Delusion has passed, and that mystery and concealment will no longer be encouraged."—We are, etc.,

ROGER PROWSE

Bristol

Points from Letters

Incidence of Postoperative Deep Vein Thrombosis in the Tropics

Mr. L. F. TINCKLER (Wrexham) writes: I refer to the article by Mr. M. A. Hassan and others (3 March, p. 515) on postoperative deep vein thrombosis in the Sudan in Sudanese patients, and the subsequent letter from Mr. K. B. Orr (9 June, p. 615) recounting his experience in Vietnam. Their findings of decreased incidence of postoperative thromboembolism in their patients compared with the incidence of that complication in British hospitals using objective means of investigation is interesting. . . . It seems to me that in Britain there is now an unvalued opportunity to distinguish between genetic and environmental factors in relation to this discrepancy as in some parts of the country there are immigrant populations of Afro-Asian origin in which the incidence of postoperative thromboembolism could be compared with the incidence in indigenous people in the same area. Whatever the outcome of such a controlled investigation might be, it would have potentially important implications for management of the postoperative patient and perhaps throw light on the question of the genesis of postoperative deep venous thrombosis.

Surgery for Coronary Occlusion

Dr. S. TALBOT (Sheffield) writes: I was interested in your leading article (25 August, p. 420) which appears to advocate the widespread use of vein grafts for coronary occlusion. The literature on the subject is in favour of such a view but British experience with such operations is limited. I have recently returned to England after spending a year in cardiology in the U.S.A., and my experience there would lead me to a different conclusion. Opinion among cardiologists is still divided as to the merits of the operation. In particular there is considerable doubt that ventricular function is improved and myocardial infarction averted.

Symptoms, particularly angina, improve following the operation, but assessment of objective improvement is difficult after such a financially exacting procedure. Beta-blockers are still not used fully for the relief of angina, and only propranolol is available in some centres owing to Food and Drug Administration restrictions. Many patients undergoing the operation might have achieved comparable improvement with beta-blockers. . . .

Ring Tourniquets for Fingers

Mr. S. C. CHEN (Enfield, Middlesex) writes: I wish to draw the attention of your readers to the dangers of using the above device—especially of the transparent plastic variety—in hand surgery. During the past year in the Enfield group of hospitals two ring tourniquets were inadvertently left behind on fingers after minor surgical procedures. They were discovered only after a lapse of several hours, when the patients returned to the casualty department complaining of pain in one case and numbness of the finger in the other. Fortunately the outcome in both cases was not disastrous, although both fingers were blue and one was insensitive to light touch, by the time the mistakes were discovered. . . .

Long-term Retention of Oesophageal Foreign Body

Dr. R. B. BRUCE (Auckland) writes: With reference to the case reported by Mr. R. H. Johnson (26 May, p. 461), it may be of interest to recount that in 1946 a boy of 8 came into Green Lane Hospital, Auckland, with a history of vomiting blood. The history was that he had swallowed a penny some eight months previously, but had been x-rayed and the penny was not seen. The child died during that night, and at postmortem the penny was found in the oesophagus, having ulcerated through into the aorta. . . .