

(2) I can see no rationale for the technique described by Drs. Shepherd and Watt of mixing *d*-tubocurarine chloride with thiopentone and atropine, if I have understood them correctly. In the first place it alters the amount of fluid in which each drug is dissolved, complicating calculation. Secondly, it prevents variation of one drug without a proportionate variation in the others. Yet it is as important to reach by calculation the correct end-point with thiopentone as it is with curare.

My technique with thiopentone is to give the drug at a steady rate of about 0.1 g. every five seconds, making the patient count rapidly, and to stop the injection as soon as the patient's voice starts to tail off. In this simple way unconsciousness with the minimal amount of thiopentone is achieved. To do this effectively it is essential for the thiopentone to be administered separately from the curare, although through a single venepuncture. For in-patient therapy it has been found most simple to give a standard dose of atropine, 1/75 gr. (0.9 mg.), subcutaneously 1½ hours before treatment, as is done pre-operatively.

(3) Drs. Shepherd and Watt have had little use for neostigmine, while, it appears, tolerating apnoea in their patients of up to 45 minutes. Patients begin to come round from the post-convulsive coma in 5-10 minutes. There can surely be no justification for submitting a patient to the distress of waking up weak and apnoeic, and one's staff to the needless imposition of continuing artificial respiration for up to 45 minutes, when a routine intravenous dose of "prostigmin" (1½-2 mg.), given immediately upon cessation of the convulsion, so rapidly and effectively abolishes the curare-effect that artificial respiration, in my experience, can invariably be discontinued directly after the injection, and no patient wakes conscious of having been curarized.

—I am, etc.,

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### Transfusion Compatibility Tests

SIR,—The commonly employed direct compatibility test, using the patient's serum and a saline suspension of donor's cells, is unsatisfactory and dangerous. The transfusion reaction described by Drs. A. C. Buchan and John Wallace (April 16, p. 660) illustrates the danger attending its use, and emphasizes the absolute necessity of using a compatibility test that will detect incompatibilities due to Rh and other irregular agglutinins, both of the saline- and albumin-agglutinating types.

The application of the indirect Coombs test would probably provide the greatest safety, for it is apparently the only test that detects the rare cryptagglutinoids, but it seems too laborious for routine use and too involved for many who might have to perform urgent cross-matching. In this laboratory saline suspensions are never used, all compatibility tests being performed with albumin suspensions by the open-slide method of Diamond and Ableson. For the past six months we have simplified our arrangements for this test, so that it can be easily performed by anyone wishing to cross-match in the absence of laboratory staff. Our procedure is as follows:

Blood in the citrated pilot tubes, supplied attached to the bottle, is allowed to settle, and two drops of the sedimented cells are transferred aseptically to sterile plugged tubes (2 × ¾ in.; 5 × 0.9 cm.) containing two drops of 30% bovine albumin; care is taken not to include any supernatant fluid. These small tubes are fixed to the pilot tubes with adhesive tape. All blood is treated in this way before being made available in the "bank."

Compatibility is tested for by mixing equal volumes of this albumin suspension and the patient's serum or plasma on a slide and reading after 15 minutes in a 37° C. incubator or over a lamp—precautions being taken against drying. Advantages are that the suspension is ready for immediate use and no additional reagents are needed.

Specific agglutinability is retained for at least 10 days; we have made no tests over a longer period. Owing to the optical properties of albumin the cells in the tubes may appear haemolysed although they are well preserved.

Dangerous reactions are likely only in the presence of pre-formed agglutinins. The use of a satisfactory compatibility test is therefore a more important safeguard against dangerous reactions than is routine Rh testing with a limited range of sera, for only in this way can the reactions due to the rarer Rh antibodies and other irregular agglutinins be avoided. A test on the above lines can provide a considerable measure of safety; it remains only to convince all those prescribing blood of the inescapable obligation of employing a compatibility test.—

We are, etc.,

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B. GODWIN.  
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### Routine Medical Examinations

SIR.—A conference was recently held under the auspices of the British Council for Rehabilitation on "The Problem of the Cardiac Patient in Industry." One of the principal speakers inferred that the routine medical examination of individuals in industry had very little value except for the supervision of special cases under specialist direction. He spoke, perhaps unintentionally, with something of the disdain of a certain type of specialist for anyone not equipped with specialist training and a battery of scientific apparatus. The specialist has been described as one who knows more and more about less and less, and certainly many specialists know far too little about the indivisible problem of health as opposed to the specific classification of disease. The specialist too often is concerned primarily with cure and salvage, after neatly fixing a label.

The doctor in industry, as team-mate of the general practitioner, is concerned with very different problems—how to help people to keep out of range of the specialists by promoting health and preventing disease. The value of the routine medical examination is not primarily to detect disease. The good doctor has to develop a fine clinical sense in conjunction with knowledge of men and a sound training in examination and the taking of a full history. This enables him to select a certain proportion of cases for reference to their G.P., and a smaller number of these are sent for detailed investigation by the specialist. Often the cases are sent to him not so much for his advice as for the special investigation by apparatus which the ordinary doctor has not at his disposal. Such cases would otherwise come forward at a much later stage in their disease.

This is only a very small proportion of the cases seen by the industrial doctor. Primarily, I think, the value of routine examinations lies in reassurance, guidance, and general health education. In every consultation the doctor learns something of human nature, and may have an opportunity of using his knowledge for the aid of his patient.

We hear much to-day of the stress diseases which cause such vast national loss. The industrial doctor is in the front line in the study and prevention of these diseases, which owe so much to bad mental hygiene and disharmony of interpersonal relations. In this capacity he is a catalyst in industrial affairs. Beyond this, the routine examination gives great opportunities for the study of the natural history of disease and the practice of social medicine. If improvements are to be made much will depend upon the quality and the philosophy of those who guide the development of students into doctors. In this role, is it too much to say that the specialist has perhaps his greatest opportunity, for good or ill, as the teacher and ultimately the support of the front-line doctors?—I am, etc.,

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### POINTS FROM LETTERS

#### Diet in Disseminated Sclerosis

Dr. C. D. Ross (Stafford) writes: The study of the geographical distribution of disease has brought to light many important facts in its aetiology. It has been pointed out by Snapper (*Chinese Lessons to Western Medicine*, 1941, New York) that arteriosclerosis occurs rarely in Northern China, in spite of the fact that diabetes is common. He suggests the fundamental differences in dietaries to be the underlying cause of this phenomenon. It is known that the Chinese diet contains only small amounts of cholesterol but considerable quantities of unsaturated fatty acids, especially linoleic and linolenic acids. From the available literature it is found that disseminated sclerosis is rare or absent in China, where the staple diet is rice. It would appear that disseminated sclerosis, as well as arteriosclerosis, is connected in some way or other with diet and metabolism. Would it be wishful thinking to assume that in a case of disseminated sclerosis the substitution of an average Chinese diet would prevent the further ravages of the disease?

#### Diathermy Prong Forceps

Mr. A. WILFRID ADAMS (Bristol) writes: I am grateful to Mr. David Aiken (April 30, p. 780) for giving his further experiences with diathermy devices for haemostasis. They will help in emergency, but do not allow me to dispense with a pattern specially designed and correspondingly efficient. The prong forceps never fails me, and is a well-warranted adjunct which is in incessant use when operating.