months resulted in early and continued overall improvement. The stools became firmer and the frequency reduced to two or three a day. There was relief of the abdominal pain and discomfort. His weight has remained constant at 8½st. (55 kg.). He has been maintained for 11 months on one tablet t.d.s. with no evidence of tolerance developing, and now has returned to his normal work as a garage mechanic.

My thanks to Dr. B. Cream and his unit at St. Thomas's Hospital for their investigation of this case.—I am, etc.,

J. A. B. WESTON.

Chertsey, Surrey.

REFERENCE

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Action on Amphetamines

SIR,—The Ilkeston Hospitals' Medical Staff Advisory Committee, including in its membership all the general practitioners in the town of Ilkeston, at a recent meeting recommended that there should be a total ban on the prescription of amphetamine and its analogues.

The committee took this action in the light of the many break-ins of chemists' premises in the town in recent months, where amphetamine has been one of the main targets of the raids. Its members are aware that lack of prescription will result in the chemists ceasing to stock the drugs, with the end result that the uncontrolled use of the drug will be diminished, if not eliminated.

While this action has been taken because of the local situation the committee recommend a similar voluntary action by doctors elsewhere to combat the problems created by the use of this particular drug, especially among young persons [see also *B.M.J.* 8 May, p. 361].—I am, etc.,

T. H. GILLISON,
Chairman,
Medical Staff Committee.

Ilkeston General Hospital,
Ilkeston, Derbyshire.

Fluphenazine Enanthate in Schizophrenia

SIR,—The use of fluphenazine enanthate[1-3] and more recently decanoate in schizophrenia has been shown to be a considerable therapeutic advance.[4] This, coupled with advances in community care, has had a very beneficial effect on the management and prevention of relapse of rehabilitated schizophrenics living outside the hospital.

The drug is also useful in initiating the treatment of some acutely disturbed patients when they refuse regular medication. On a number of occasions patients who refused all forms of treatment were persuaded to receive a test dose of 12·5 mg. of fluphenazine decanoate and subsequently were willing to continue with a full dose of 25 mg. five days later because of the improvement in their mental state due to the initial dose. Two cases are described because they are illustrative, although in no way exceptional.

A 72-year-old paranoid schizophrenic woman had been in hospital for nine years. Over six months she showed a steady deterioration in her contact with reality, in her co-operation with other people, and in her habits. She was spending all day in a side room with the curtains drawn holding loud conversations with her voices. She refused to attend meals, co-operate in ward activities, or keep her room or her person clean and tidy. She was abusive towards the nursing staff claiming they were stealing her property. She was prescribed chlorpromazine, which she refused to take. She was then prescribed fluphenazine and eventually persuaded to receive this after having seen its beneficial effect on another patient whom she knew well. Within two days she claimed to feel better. She started taking more interest in other people and co-operated better. She gradually stopped sitting and talking in her room. She accepted further injections. Within two weeks she was working at occupational therapy mixing well on the ward, and even taking an interest in the health of the ward staff.

A ward sister, aged 37, was transferred from another hospital in a manic episode of manic-depressive psychosis. She showed extreme irritability, motor restlessness, pressure of talk, and flight of ideas with lack of insight—conforming closely to Jung's "manic ill humour"[5] She refused chlorpromazine denying that she was ill. However, when it was explained that treatment was obligatory, she permitted an injection of fluphenazine to be given. Her extreme irritability responded within a week, and there was a decrease in restlessness and speed of thought. She was willing to accept her second and subsequent injections. It was possible to transfer her to haloperidol orally, on which she was maintained. It was thought inadvisable to discharge a patient with her diagnosis on fluphenazine because of the theoretical possibility of depression[6] and the difficulty of reversing depression with a long acting drug.

It is suggested that disturbed patients who refuse treatment may sometimes successfully start treatment with fluphenazine decanoate, a long acting phenothiazine drug. In several instances improvement was sufficient after initiating treatment for second and subsequent injections to be accepted by the patients without demur.—I am, etc.,

A. C. P. SIMS.

All Saints Hospital,
Birmingham 18.

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Traveller's Diarrhoea

SIR,—Having recently returned from Mexico, where I was medical officer to the 1,500 or so England supporters, I would like to present the following observations gathered from an admittedly small but probably significant study appertaining to the present controversial use of prophylactic therapy for "traveller's diarrhoea."

I was consulted by 108 people suffering from diarrhoea with or without vomiting/abdominal pain and, of this number, 65% were already taking Entero-Vioform. Most had taken it prophylactically since their holiday started and had increased the dose as recommended when symptoms started.

Only four patients had generalized upset manifested by raised pulse and pyrexia, etc., and they were all taking Entero-Vioform as above.

Ninety-five per cent. of all patients were symptom free within 72 hours of dietary restraint and kaolin compound for the more severe cases. The 40 with toxic symptoms responded well to Streptotriad (sulphadiazine, sulphadimidine, sulphathiazole, and streptomycin) in addition. The remaining 5% had intermittent diarrhoea for a further 7-10 days but were not seriously incommoded by it.

The conclusions from this are easily drawn I think.—I am, etc.,

R. CRUTHERS.

Croydon,
Surrey.

Body Contour for Radiotherapy

SIR,—I was interested to read Dr. D. E. Meredith Brown's letter on the determination of body contour for radiotherapy (8 August, p. 345). This system has been in use for many years, of course, but it is welcome news that a commercial instrument is available. It is to be hoped that the use of flexible metal strips will soon be relegated to history.

One point, however, is worthy of consideration. If a set of parallel needles is used, skin surfaces which are perpendicular to the direction of the needles are recorded accurately, but those lying almost parallel to the needles are recorded very inaccurately. This difficulty can be overcome either by using two sets of needles positioned on a right angled frame, or by using a device with needles arranged radially around the arc of a circle.—I am, etc.,

L. ARTHUR FIRTH.

Leamington Spa,
Warwicks.

Propranolol and Serum Calcium in Thyrotoxicosis

SIR,—We were interested to read the paper by Drs. R. G. Twycross and V. Marks (20 June, p. 701) on the control of symptomatic hypercalcaemia in hyperthyroid patients by means of conventional antithyroid therapy. We would like to record our unusual experience of the effect of propranolol in two hyperthyroid patients.

An Indian male, aged 41 years, was first admitted to hospital on 5 January with a history of loss of weight (33 lb., 15 kg.) over two months, weakness, and marked sweating. Clinically he was found to have diffuse thyroid enlargement with a systolic bruit, exophthalmos, lid lag, fine tremor of the hands, pulse rate 140/min., sweaty palms, and a proximal myopathy. His protein bound iodine (P.B.I.) was 13·3 μg./100 ml., 24-hour ^{131}I uptake 82·2% (normal 15-50%), and latex particulate triiodothyronine ^{131}I 47·5% (normal 18-28%). He was discharged on propranolol 20 mg. t.d.s. and carbimazole 10 mg. t.d.s.

We saw him for the first time 6 weeks later with new complaints of anorexia, constipation, polyuria, and polydipsia, and he stated that he had stopped his antithyroid drug therapy. Hypercalcaemia was suspected and his serum calcium

was 14·4 mg./100 ml., and serum phosphorus 4·5 mg./100 ml. The serum alkaline phosphatase was 20 King-Armstrong units, and the 24-hour calcium excretion in the urine was 400 mg. Clinically he was markedly hyperthyroid, and propranolol 80 mg. q.i.d. was administered in an effort to ameliorate his symptoms. This was followed by a drop in the serum calcium to 10·6 mg./100 ml. by the fifth week and subsidence of the symptoms of hypercalcaemia with a return to a euthyroid state. An attempt to reproduce the hypercalcaemic state by stopping propranolol for two weeks failed, though the clinical features of thyrotoxicosis became overt. Financial considerations made the patient unwilling to remain in hospital, and he was given ^{131}I 4 mCi and discharged on propranolol 40 mg. q.i.d.

An Indian female, aged 58 years, was first admitted on 9 March to King Edward Hospital with a seven-year history of dyspnoea, palpitations, and loss of weight. Clinically she was found to have diffuse thyroid enlargement, exophthalmos, lid lag, fine tremor of the hands, proximal myopathy, hot sweaty palms, and a pulse rate of 120/min. Her P.B.I. 10·6 μg./100 ml., 24-hour ^{131}I uptake 86%, and latex particulate triiodothyronine ^{131}I 48%. No serum calcium study was done, but an E.C.G. excluded evidence of any calcium disturbance. She was treated with propranolol 40 mg. q.i.d. and ^{131}I 4 mCi was administered on 22 April. She was subsequently discharged, but readmitted on 1 May in congestive cardiac failure. An E.C.G. showed prolonged QT_c interval (0·45 sec.), and the serum calcium was 6·6 mg./100 ml., serum phosphorus 4·4 mg./100 ml., and serum potassium 4·4 mEq/l. Propranolol was stopped on 23 May and two days later she died suddenly. Necropsy failed to reveal any definite cause of death.

Though propranolol has been shown to improve many of the clinical features of hyperthyroidism[1-4] it does not alter thyroid function per se, as evidenced by its lack of effect on P.B.I. and ^{131}I uptake by the thyroid gland.[4] Furthermore, propranolol produces no change in other metabolic derangements in hyperthyroidism—for example, the raised free fatty acid abnormal glucose tolerance or human growth hormone response.[4] Hence it is surprising to find reduction in serum calcium in patients treated with propranolol. Thus it seems worthwhile investigating the effects of propranolol on hypercalcaemia in hyperthyroidism noting that hypocalcaemia may be a dangerous side effect.—We are, etc.,

Y. K. SEEDAT.
A. I. VINIK.
E. G. STEWART-WYNNE.

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Republic of South Africa.

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Peritoneal Dialysis in Pulmonary Oedema

SIR,—In reply to the letter of Dr. M. I. M. Noble (25 July, p. 224) on the above subject, we should like to make the following comments.

The four patients who underwent peritoneal dialysis were selected from 850 with proved myocardial infarction who passed through our coronary monitoring unit, so that the problem of resistant pulmonary oedema is a rare one. All four patients were given salt-restricted diets, and we agree that it may be valuable to observe serial weight changes during the patients' stay in coronary monitoring units. However, in a nine-bedded unit of a regional hospital it was not thought to be an economic proposition to have weigh-beds and, of course, such patients as we have described are usually too ill to get out of bed for routine weighing.

Our experience of large intravenous doses of frusemide for pulmonary oedema or pulmonary congestion after myocardial infarction is not impressive. Doses of 300-600 mg. have been administered to such patients with no greater diuretic response than that achieved with 100-200 mg., so as a consequence of this we now no longer tend to use such high dosage. It should also be appreciated that the patients who were dialyzed were critically ill, and it was thought that no more time should be wasted using routine diuretic methods, since the removal of fluid by peritoneal dialysis can be very rapid. Furthermore, this procedure allows some measure of correction of any metabolic disturbance.

All patients with pulmonary oedema after myocardial infarction are nursed well propped up in bed with the head of the bed raised and the foot of the bed lowered 6 in. (18 cm.)

Finally, peritoneal dialysis in capable hands, using rapid one-litre cycling, is not usually upsetting to the patient, and to date we have not experienced any worrying complications.—We are, etc.,

M. P. CHOPRA.
R. B. GULATI.
R. W. PORTAL.
CLIVE P. ABER.

Kingston General Hospital,
Hull, Yorks.

Anticoagulants and Cardiac Infarction

SIR,—There is ever-increasing literature on the subject of anticoagulants and cardiac infarction, with strongly varying views on its value even from clinicians with considerable experience and equal ability. Medical students are taught that, unless there is some definite contraindication in myocardial infarction, anticoagulation is part of the routine treatment for coronary thrombosis, especially in young men.

While early work on this subject appeared to make this a reasonable conclusion, the most comprehensive survey by the Medical Research Council, published in the *British Medical Journal* (8 February, 1969, p. 335) has shown that earlier hopes of the value of these drugs have not been justified, and on the over-all mortality they have made little or no difference. For some extraordinary reason this important paper seems to have been ignored and most students and newly qualified doctors still think this therapy is of the utmost importance, and almost regard people who do not give it as withholding essential therapy. In the paper mentioned it did seem to bring out, as have other papers, that the liability to thromboembolic phenomena is slightly reduced, and this of course is important, but such phenomena are by no means more comon in the young, and in my own experience seem to be related to the size of the infarct. If this is so, where a big infarct is suspected there would seem to be a greater indication for anticoagulant therapy, otherwise the value of these drugs seems in such grave doubt that it is extraordinary to me that they are still being regarded as a routine therapy.

I would be most interested to know if any of the team who took part in this extensive trial have any views on which patients are the most likely to get thromboembolic phenomena, or is it still impossible to assess this?

As a physician working at two regional hospitals dealing with very large numbers of these patients, I have been increasingly unimpressed with the value of this therapy but would not wish to withhold it entirely unless its lack of value is conclusive.—I am, etc.,

P. J. W. MILLS.

Lister Hospital,
Hitchin, Herts.

Entonox in the Ambulance Service

SIR,—Following the report on the use of Entonox in the Ambulance Service by Drs. P. Baskett and A. Withnell (4 April, p. 41), we have analysed the 91 cases that have been treated in the first six months of the use of Entonox in the Brighton Ambulance Service. The analysis has been made under the same headings as those used by Drs. Baskett and Withnell, and are as follows, their figures being given in brackets:

Limb Injuries	41	(27)
Burns	2	(3)
Chest Injuries	6	(4)
Back Injuries	5	(2)
Cuts and Scrapes	0	(2)
Acute Abdomen	13	(13)
Myocardial infarction (Heart Cases)	14	(3)
Pneumonia and Pleurisy	1	(2)
Meningitis	0	(1)
Terminal new growth of stomach	1	(1)
Obstetric	8	(6)

The distribution of cases is very similar, except for a much larger number of cases in the Brighton series when Entonox was used for myocardial infarction.

No follow up has been attempted on the lines of the Gloucestershire experiment, but the ambulance men were asked to record on a form, completed immediately after the incident, upon the degree of pain relief. In 75 cases relief was stated to be satisfactory, in 15 it was partial, and in one case only was no benefit gained from use of Entonox.

The experience in Brighton so far indicated that this is a method of treatment that is welcomed by the patients and ambulance men alike, and may be regarded as a most valuable addition to an ambulance service.—We are, etc.,

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Brighton and Lewes Group of Hospitals.

W. S. PARKER.
Health Department,

E. R. KIMBER.
Ambulance Department,
County Borough of Brighton,
Sussex.

Scleroderma and Primary Biliary Cirrhosis

SIR,—In view of our own observations we were interested in Professor A. E. Read's comments on the association between systemic sclerosis and primary biliary cirrhosis (1 August, p. 278) and also the two case reports by Dr. I. M. Murray-Lyon and colleagues (p. 258).