next door, whose serum was found to be positive in the dye test at a titre of 1/256.

Although further work is needed to substantiate this link in human infections, it indicates that epidemiological work along these lines may well be rewarding.

We wish to thank Drs. J. B. Sayer and D. J. McBrien for help with this investigation. Serum from the cat was sent to us by Mr. J. C. Wooton, M.R.C.V.S.

—We are, etc.,

D. G. FLECK
B. S. CHESSUM
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Contaminated Drip Fluid

SIR,—Recent events involving intravenous fluids have prompted considerable comment in the scientific and popular press, with specific criticisms of autoclaves, solution containers, and quality control procedures.^{1,2} However, any improvement in manufacturing techniques, although welcome, must be accompanied by investigations on a much wider front into the whole practice of intravenous therapy, and this is the point which I was trying to make in my recent Questions to Sir Keith Joseph when he was making his statements in the House of Commons (see 18 March, p. 759). The responsibility that intravenous therapy remains a safe and effective technique rests with all the professional groups involved—the medical staff, the nursing service, and the pharmacist.

It is impractical to expect the doctor who prescribes treatment fully to appreciate the chemical pharmacology and incompatibilities of all drugs. Literature on the stability of drugs and the addition of supplementary medication to blood or infusion fluids is often contradictory. Tetracycline alone is incompatible with over 50 other common chemicals, and antihistamines are routinely added to blood packs. The recommended frequency of changing an administration set or cannula varies from "with every bottle"³ to "after 48 hours,"⁴ and the medical student receives little instruction on these points. In a recent case in a teaching hospital which came to my notice 13 different bottles were administered through the same giving set. Not surprisingly, this had become infected and there was an adverse, luckily mild, reaction.

Nursing staff, who invariably perform the last quality check, are increasingly expected to make complicated pharmaceutical calculations and reconstitute drugs for mixing with intravenous fluids on non-sterile wards, again without formal training or education. The pharmacist, for too long merely a dispenser, has the appropriate training and qualifications to provide all information and advice on drug interactions, aseptic technique, and bioavailability. He must, therefore, be encouraged to extend his responsibilities outside the pharmacy, provide a 24-hour service, and become an active member of the health team, the rest of whom, in their turn, must be encouraged to respect his advice.

Now that over 17,500,000 units of intravenous fluid are given to patients annually, the time is opportune to re-examine the habits which for too long have been allowed to evolve in a haphazard manner. With support from the teaching hospitals, N.H.S. administrators, and the medical and nursing professional bodies the responsibilities and

rules for trouble-free intravenous administration technique must be clearly defined. A circular from the Department of Health and guidance from the defence societies would help to achieve this end.—I am, etc.,

TOM STUTTAFFORD

House of Commons,
London S.W.1

¹ Perera, R., *Pharmaceutical Journal*, 1972, 208, 469.

² Sterne, M., *New Scientist*, 1972, 54, 272.

³ Mollison, P., *Blood Transfusion in Clinical Medicine*, 4th edn., 614. Oxford, Blackwell, 1967.

⁴ Dunbar, J. M., *Modern Medicine*, 1972, 17, 142.

Herpes Simplex and Temporal Lobe Epilepsy

SIR,—The discussion on the causes of temporal lobe epilepsy in the interesting paper by Mr. Murray A. Falconer (10 June, p. 631) revealed that herpes simplex infection had probably not been considered as a possible cause of this condition.

Many recent studies have now shown that herpes simplex infection is apparently the commonest cause of severe acute encephalitis in older children and adults, the usual histological picture being an acute necrotizing encephalitis.¹ It appears that this acute presentation is uncommon in young children. Thus, in our own laboratory during the 10-year period 1962-71, a firm diagnosis of herpes encephalitis was made in 20 patients in the west of Scotland on the basis of histological evidence of encephalitis along with isolation of virus from brain and/or serological findings indicative of current herpes simplex infection. Only one of these 20 was under 10 years old, and his illness differed from the others in having sub-acute onset at the age of 3 years followed by slow deterioration and death when 6 years old. In contrast, all the older children and adults had an acute severe illness; 12 of these 19 died, all in the acute phase of illness.

The possible importance of herpes simplex infection as a cause of severe convulsions in infancy later leading to temporal lobe epilepsy does not appear to have been adequately ascertained, because brain biopsy would of course not be carried out on such infants. However, a rising serum antibody titre for herpes simplex in such infants would give a firm indication of a current infection. I urge that paired sera for this investigation should be collected from all infants with severe convulsions so that the possible role of herpes simplex infection as an aetiological factor in temporal lobe epilepsy may be determined. Since antibody responses in infants are frequently slow the interval between the sera should be three to six weeks.—I am, etc.,

CONSTANCE A. C. ROSS

Regional Virus Laboratory,
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Glasgow

¹ Adams, J. H., and Miller, J. D., *Postgraduate Medical Journal*, 1972, in press.

Aetiology of Varicosity

SIR,—I was impressed with Mr. D. P. Burkitt's paper (3 June, p. 556) on the relationship of Western society's low residue diet and varicose veins, haemorrhoids, and deep vein thrombosis.

I would like to give emphasis to a different aspect of this problem. A major factor limiting appetite is gastric distension, which the refined Western diet does not achieve until a large number of calories have been ingested. With lack of deliberate self control, obesity is now causing a progressive decline in health in economically developed communities. This obesity does not develop without inactivity, and the proportion of people in Westernized society in sedentary occupations is very different from that in African society.

This inactivity allows venous pooling and distension in the legs causing incompetency of the valves, which is then considerably aggravated by straining at stool. Venous flow in the legs is against considerable gravity, and the bumping assistance of the muscles is needed to maintain a satisfactory rate of flow. Sluggish bowel movement and constipation occur in the generally inactive so that the sedentary person will do more straining at stool.

The postulation of the weight of the colon as the main cause of deep vein thrombosis is difficult to accept. The African bowel has a heavier content, larger volume, and is a bigger structure altogether, as shown by its tendency to volvulus. Thus there will be more compression of the deep veins in the African than by a low residue containing colon. Obesity and inactivity are as important aetiological factors as straining at stool. The chances of an individual developing deep vein thrombosis depend directly on his fitness and the condition of his veins before operation. The lean, fit African is at considerably less risk than the obese, unfit European.—I am, etc.,

A. A. R. GOSSAGE

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Treating Incontinence Electrically

SIR,—Your leading article "Treating Incontinence Electrically" (17 June, p. 670) presented a fair review of one of the methods of electrical treatment at present available but, by failing even to mention other techniques, highlighted the dismaying gulf that is apparent between those who have recently started using new electronic gadgets and those who have been treating incontinence electrically for over a century—namely, the physiotherapists.

If continuous electrical stimulation is to have any permanent place in the therapy of incontinence, it must be shown either to have an objective effect on the sphincter mechanisms justifying its use, which it does not,^{1,2} or to be effective in controlling types of incontinence for which no simpler method of treatment is available. Neither of these criteria is satisfied in respect of treatment of stress incontinence. Jones and Kegal³ reported a 43% cure rate by exercise alone, Tanner⁴ reports a 55% success using faradic stimulation as an adjunct to physiotherapy, and Moore and Schofield⁵ report 33% success in patients reviewed one year after 30 seconds treatment with powerful faradic stimulation under anaesthesia. We found a 50% cure rate in selected cases using a method of powerful faradic stimulation under anaesthesia followed by physiotherapeutic instruction augmented by the use of intermittent stimulation when neces-

sary. The stimulation is used purely as an educational aid to increase the patient's awareness of the pelvic floor musculature in order that she can actively retrain the muscles herself by repeated exercises.

It seems to be a reasonable rather than an extreme view to try to cure stress incontinence, for merely to control it with continuous electrical stimulation involves the permanent use of an electrode bearing device either in the vagina or anal canal and recurrent expense on batteries to the patient ad infinitum. It also seems reasonable to co-operate with physiotherapists whose special experience and skill can increase the effectiveness of these modern techniques.—We are, etc.,

C. D. COLLINS
EILEEN MONTGOMERY

Bristol

1 Collins, C. D., Brown, B. H., and Duthie, H. L., *Scandinavian Journal of Gastroenterology*, 1968, 3, 395.

2 Collins, C. D., *Proceedings of the Royal Society of Medicine*, in press.

3 Jones, E. G., and Kegel, A. H., *Surgery, Gynecology and Obstetrics*, 1952, 94, 179.

4 Tanner, E. R., *Physiotherapy* 1969, 55, 372.

5 Moore, T., and Schofield, P. F., *British Medical Journal*, 1967, 3, 150.

SIR,—It is indeed the case that the hopes raised when Caldwell's work was first published have not been fully realized. But it was ever thus. There is always undue optimism when any new thing is described. Your leading article (17 June, p. 670) fails to make the important point that the majority of patients treated by electronic stimulators have already undergone several operations to relieve their incontinence;¹ this is why we here refer to it as resistant incontinence. Further surgery in such patients is bound to be attended by less certain success. In the light of this, the 50-60% improvement rate of implants is not to be scorned.

We would stress, however, that the electronic implant is only one of the techniques available to treat resistant incontinence. It is important that centres specializing in this work be thoroughly conversant with all the methods available—drugs, simple pessary and spring devices, internal and external electronic stimulators. When such an armamentarium is available and appropriately employed the overall success rate in treating these cases is well above 60%.

We are not as pessimistic as you with regard to this work; the step forward has not been as big as was first hoped, but it is a surer footing than you imply.—We are, etc.,

J. P. WILLIAMS
STUART L. STANTON

Institute of Urology,
London W.C.2

1 Edwards, L., Harrison, N., and Williams, J. P., *British Medical Journal*, 1971, 1, 543.

Benign Breast Swelling

SIR,—I would like to go further than Dr. P. M. F. Bishop (24 June, p. 770). Our main difficulty in understanding the common breast complaints for which women consult doctors—pain and variation in the consistency of the breasts—arises from our using morbid anatomical terms, such as chronic mastitis or fibroadenosis, to designate functional variations in the vascular response of the breasts to hormonal, and I suspect also emotional, stimuli.

Such terms imply disease, whereas we are in fact dealing with physiological or parapsychological phenomena. Is not the first essential, therefore, the abandonment of these morbid anatomical terms?—I am, etc.,

DAVID PATEY

London W.1

Serological Reactions in Erythema Multiforme

SIR,—Drs. A. Macdonald and M. Feiwel report an interesting and unusual case (3 June, p. 570). The fluctuations in complement fixing antibody titres to many viral antigens are most unusual, and it seems scarcely adequate to dismiss them as anamnestic. The complement fixation technique is not described. Since serum from the early stage was anticomplementary, did the controls exclude the possibility that this activity rather than specific antigen-antibody reactions was involved in the phenomena? Were reactions given by control antigens prepared from non-infected eggs and tissue cultures? Were the tabulated titres obtained by simultaneous titration of all seven sera, or might inter-test variations have contributed to their differences? Were the antibody responses shown by any tests other than complement fixation? Although neutralizing antibodies to herpesvirus were not found at an unspecified stage of the illness, were the tests designed to detect complement-requiring antibodies which are often found in primary herpes infection? Were tests with bacterial and non-microbial antigens performed, and did these also show the variation in titre?

Information on these points would be helpful.—I am, etc.,

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Ruchill Hospital,
Glasgow

Skin Trauma and Corticosteroids

SIR,—I read with interest "Skin Trauma in Patients Receiving Systemic Corticosteroid Therapy" (10 June, p. 614). The problems in this hospital are in many ways the same as Mr. D. J. David's, and after many years of trial and error the following simple and inexpensive method has been found to be the most satisfactory, safe, and least uncomfortable for the patient.

The majority of patients were women aged between 40 and 65 with lesions on the mid to lower tibia. They had often had several previous hospital admissions and were loath to be admitted again. They were therefore treated as outpatients. On arrival, the patient was taken into theatre and given 10 mg of diazepam, by mouth or intramuscularly. The leg was elevated and covered with a large dressing soaked in Cetrihex (chlorhexidine gluconate 7.5%, cetrimide 15%). After half an hour, by which time the patient was sedated, the wound was cleaned with gauze soaked in the same solution. Usually no anaesthetic was required but occasionally 1% lignocaine without adrenaline was used. As Mr. David noted, most of these unpleasant looking injuries were due to trivial trauma in the house so the risk of infection was slight.

Bleeding was never a problem, and haemostasis was easily achieved. Micropore

surgical tape (Steristrip) was used to approximate the wound edges, applied in strips 4-5 in (10-12.5 cm) long, starting well away from the wound and passing diagonally across it, using the most stable part of the wound as the fulcrum for the first few strips and using the minimum number of strips which would hold the wound edges together. After leaving the leg elevated for a further half an hour, several layers of dry gauze and an elastic blue line bandage were applied, and tetanus toxoid and antibiotics were given. If the patient's condition was satisfactory, she was sent home to bed for 24-48 hours, then seen again, and if all was well, told to walk, wearing the elastic web bandage all the time she was out of bed until the wound had healed.

The patient was then seen weekly, the micropore tape removed or replaced where necessary, until healing was complete. Though this could take up to eight weeks, the final result was good. The patient had been spared admission, the risk of infection with hospital organisms, general anaesthesia, and a surgical procedure. Alteration in steroid requirements was not needed, and the possibility of thrombophlebitis from immobility was reduced.

Those of our patients who had previously been admitted for similar type of injuries have stated their preference for this outpatient treatment.—I am, etc.,

JOAN SNEDDON

Royal Hospital,
Sheffield

Child Abuse Syndrome

SIR,—While we read with interest the article by Dr. Graham Jackson (24 June, p. 756) on the misdiagnoses of cases of child abuse, we believe that it contained little new thought on the subject.

The battered child has emerged as a medicosocial problem, and only by a joint detection scheme in the community is there hope that these tragic cases will be prevented.¹ Regular re-examination of hospital records, although valuable, is only secondary to a proper co-ordinated scheme of community detection. Our experience in Nottingham has shown that a battered baby can occur in any family, irrespective of social class or standing (4 September 1971, p. 584).—We are, etc.,

WILFRID H. PARRY
MARGARET W. SEYMOUR

City of Nottingham Health Services,
Nottingham

1 Parry, W. H., and Seymour, M. W., *Community Medicine*, 1971, 126, 121.

SIR,—Dr. Graham Jackson is to be congratulated on pointing out (24 June, p. 756) that many children who present to hospital with trauma are unrecognized cases of children who have been physically abused by their parents. Over the last 18 months we have had personal experience of 103 cases of "unexplained injuries" in children under 5 years of age in the course of a broadly based research project. Some facts which emerge from analysis of the first 50 cases are the following. Their mean age is 14 months, over half being under 18 months of age. Boys were injured in 56%, girls in