Some intrauterine devices are easily seen on a plain x-ray. The Dalkon Shield, however, has a lower level of radio-opacity, and unless certain x-ray techniques are used the device may be difficult or impossible to see. The radio-opacity is achieved by the addition of barium sulphate, which has the undesirable effect of rendering the device more brittle. To enable the Dalkon Shield to be bent during insertion through the cervical canal it must be as thin and as pliable as possible, and the concentration of barium sulphate is therefore kept lower than in other devices.

Three techniques for the radiographic location of the Dalkon Shield are suggested for the average-sized patient: (1) "Regular" technique: machine setting 200 mA, 76 kV, 3/5 sec. (2) "Soft-tissue" technique A: machine setting 200 mA, 76 kV, 1/2 sec. (3) "Soft-tissue" technique B: machine setting 200 mA, 70 kV, 2/5-1/2 sec. We would recommend the use of one of the above radiological techniques should radiographic location of a Dalkon Shield be required.—We are, etc.,

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W. L. WHITEHOUSE

Academic Unit of Obstetrics,
Queen Mary's Hospital,
London S.W.15.

¹ Hall, R. E., *American Journal of Obstetrics and Gynecology*, 1967, **99**, 808.

Musical Bumps

SIR,—The patients Dr. P. Curtis describes (27 April, p. 226) with "guitar nipple" must surely have received faulty instruction in positioning the instrument. The classical guitar is played by a right-handed player with the instrument resting on the left knee and the base of the instrument cradled inside the right knee. The top edge of the soundbox should then overlie the region of the left nipple. Thus a right-sided player would be expected to develop left-sided mastitis. Perhaps the concept of "total patient care" should include pointing out the error of these players' ways.—I am, etc.,

JOHN MEYRICK THOMAS

St. Bartholomew's Hospital,
London E.C.1

SIR,—We wonder if Novalis was fully aware of the significance of his aphorism, "Every sickness is a musical problem." Cases of "guitar nipple" (27 April, p. 226) and "cello scrotum" (11 May, p. 335) have been reported. We should like to add a more serious condition, "guitarist's groin."

A classical guitarist aged 24 was admitted with a deep venous thrombosis of his left calf and thigh. Quite marked varicose veins in this leg were also noted. He was used to 4-6 hours of daily practice in the sitting position, with the left leg fully flexed and the guitar belly compressing the medial aspect of the thigh. Stasis in the long saphenous vein was inevitable and provided an aetiological clue.—We are, etc.,

ROBERT SEMPLE
JEREMY GILLINGHAM

Ninewells Hospital, Dundee

SIR,—Did Dr. J. M. Murphy's patient (11 May, p. 335) hold his cello in an un-

orthodox way? Personal observation suggests that the body of a cello is normally separated from the scrotum by several centimetres. Perhaps the patient supplemented his meagre musician's salary by sweeping chimneys.—I am, etc.,

PETER J. SCHEUER

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London W.C.1

Amitriptyline and Imipramine Poisoning in Children

SIR,—In reply to Dr. R. W. Newton (20 April, p. 176) we should explain more fully when and why we consider diphenylhydantoin (DPH) may be of use in treating tricyclic antidepressant poisoning.

We agree with Matthew¹ that muscular twitching and hyperexcitability may precede convulsions and should be treated. He suggests the use of phenobarbitone to prevent convulsions, but others have stressed the potential respiratory depression of barbiturates² and we feel that parenteral DPH is a good alternative. According to Matthew¹ sinus tachycardias need not be treated, but excessive ventricular extrasystoles and possibly sinus tachycardia precede more severe dysrhythmias. Obviously several drugs are available to prevent and treat these dysrhythmias³ and include intravenous practolol, DPH, and procainamide.

Thus if there are signs of impending dysrhythmias, either cardiac or of the central nervous system, parenteral DPH may be a useful prophylactic agent. The more direct approach of opposing the anticholinergic effects of tricyclic antidepressants with an acetylcholinesterase inhibitor which can cross the blood-brain barrier—namely, physostigmine salicylate^{4,5}—is obviously indicated in severely ill patients. But this is not without its dangers, and many side effects have been observed, including oversalivation, vomiting, convulsions, and bradycardia. Perhaps physostigmine salicylate should be reserved for toxic effects refractory to other forms of treatment.

In the wider context of paediatric care we support the view of Drs. K. M. Goel and R. A. Shanks (23 March, p. 575) that there should be a more critical approach to the use of tricyclic antidepressants in the treatment of enuresis and that careful warning should accompany their prescription.—We are, etc.,

R. J. POSTLETHWAITE
D. A. PRICE

Booth Hall Children's Hospital,
Manchester

¹ Matthew, H., *Prescribers' Journal*, 1971, **11**, 120.

² Rasmussen, J., *Lancet*, 1965, **2**, 850.

³ Matthew, H., *Medicine*, 1972, **51**, 273.

⁴ Rumack, B. H., *Pediatrics*, 1973, **52**, 449.

⁵ Newton, R., *British Medical Journal*, 1974, **2**, 176.

Was it a Drug? (Optimax)

SIR,—Under the heading "Was it a Drug?" (*Supplement*, 13 April, p. 16) there appeared a report of a decision by referees that in several cases general practitioners had been surcharged under regulation 16 of the N.H.S. (Service Committees and Tribunal) Regulations 1956 in respect of part of the constituents making up Optimax Powder. I think your readers should be aware that in the three cases where the

practitioners were represented by the Medical Defence Union applications have been made to the High Court for a writ of certiorari on the basis that the referees exceeded their jurisdiction and that their finding is erroneous in law. These cases are therefore sub judice and, pending the hearing of the application, the Department of Health has, I understand, deferred all action about numerous other similar cases.—I am, etc.,

J. W. BROOKE BARNETT
Secretary,
Medical Defence Union

London W.1

Adjustment of Plasma Calcium Measurements

SIR,—Dr. A. M. Parfitt (16 March, p. 520) suggested that the formulae relating total calcium to albumin concentration in plasma or serum proposed by Dr. E. M. Berry and others (15 December, p. 640) and by ourselves (p. 643) might introduce significant errors if applied when ionized calcium values were high or low. He is right. The slope of the regression of total calcium on albumin is steeper than normal when albumin is varied in the presence of a high ionized calcium and shallower than normal when ionized calcium is low. However, adjusted values are higher than they should be when the ionized calcium is high and lower than they should be when it is low, so, if anything, the clinical usefulness of the adjustment is enhanced.

We agree with Dr. Berry and the U.C.H. group (6 April, p. 53) that the selection of an albumin level as a point of reference for the adjustment of total calcium is arbitrary. We had considered avoiding the problem by suggesting that the adjustment should be to zero albumin concentration (total calcium minus the product of the slope of the regression and the albumin concentration). This would have given "unbound calcium" and would bring the Leeds and the U.C.H. adjustments closer together. However, such values would be unfamiliar to clinicians.

Dr. H. M. Hodgkinson (27 April, p. 223) asks whether we can discount the possibility that our estimate of the regression of calcium on albumin is biased because hypoalbuminaemia is often associated with hyperglobulinaemia, and globulins may contribute to the protein-binding of calcium. The association in our data between albumin and total globulins is a relatively weak one ($r=0.299$ for 200 pairs). Pedersen¹ calculated that less than 4% of normal total plasma calcium is bound to globulins, while he found negligible binding to the gamma-globulins in hypergammaglobulinaemia—by far the commonest globulin abnormality in our patients. Furthermore, the intercept of our regression line at zero albumin concentration, 5.7 mg/100 ml, is close to reported values for normal plasma ultrafiltrable calcium,^{2,4} indicating that our regression coefficient is not in serious error.

However, we should like to emphasize that we excluded patients with the nephrotic syndrome from our investigation and stated that our adjustment cannot be applied to them. Nephrotics have higher calcium levels than patients with the same degree of hypoalbuminaemia from other causes,^{5,6} possibly owing to an increased plasma concentration

of certain globulin molecules other than gammaglobulin which bind calcium more effectively than albumin.¹—We are, etc.,

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R. B. WILLIAMS
J. R. MILNER

Department of Chemical Pathology,
Leeds (St. James's) University Hospital,
Leeds

- 1 Pedersen, K. O., *Scandinavian Journal of Clinical and Laboratory Investigation*, 1972, 30, 321.
- 2 Robertson, W. G., *Clinica Chimica Acta*, 1969, 24, 149.
- 3 Pedersen, K. O., *Scandinavian Journal of Clinical and Laboratory Investigation*, 1970, 25, 223.
- 4 Rose, G. A., *Clinica Chimica Acta*, 1972, 37, 343.
- 5 Danowski, T. S., et al., *American Journal of Diseases of Children*, 1957, 93, 604.
- 6 Jones, J. H., et al., *Quarterly Journal of Medicine*, 1967, 36, 301.

Surgery in Crohn's Disease

SIR,—Your leading article (23 February, p. 295) is slightly misleading. The following comments are pertinent to the subject:

(1) The vast majority of surgeons in the U.S.A. favour resection rather than bypass. A short-circuit procedure is advocated only in cases of Crohn's disease of the duodenum or in the elderly, debilitated patient with a "burnt out" stenosing lesion.

(2) Controversy no longer rages over the optimum extent of excision. Most centres experienced with the disease do not advocate excision of enlarged lymph nodes. Conservative surgery is the rule.

(3) The surgeon should be warned of perianal disease associated with asymptomatic intra-abdominal Crohn's disease. In our experience at the University of Chicago Hospitals adequate treatment of perianal lesions should be accompanied by excision of the intra-abdominal disease.

(4) The recent recognition of occult obstructive uropathy complicating Crohn's disease¹ should now be an essential part of the evaluation of these patients. Adequate treatment includes intestinal resection and ureterolysis to achieve renal decompression.—I am, etc.,

A. R. MOOSSA

Department of Surgery,
University of Chicago,
Chicago, Illinois

- 1 Block, G. E., Enker, W. E., and Kirsner, J. B., *Annals of Surgery*, 1973, 178, 322.

Assessing the Safety of Comatose and Postanaesthetic Patients

SIR,—I was interested to read the technique for assessing the safety of postanaesthetic patients described by Drs. A. W. Grogono and A. R. de C. Deacock (20 April, p. 174). I am sure that it will prove to be a valuable and much-needed aid, but one aspect of the procedure deters me from adopting it regularly. However gently one might apply the pressure to the chin and however successfully the patient might resist it, any attempt to throttle a patient soon after he has recovered consciousness must cause some alarm. I think I know a sign that is just as sensitive but causes no discomfort.

The patient is laid in a flat supine position with the head on a low pillow. The toes of one foot are grasped and the foot gently dorsi- and planti-flexed alternately, the heel being kept in firm contact with the mattress. If the patient is unconscious the point of the chin will follow the movements of the

forefoot. As the movement is transmitted by ligaments rather than by muscles, paralysis does not significantly affect it. If the patient is conscious the movement of the chin is greatly reduced or absent. It is possible to rock the head visibly and so move the chin in a fully conscious person by exaggerating the movement of the foot, but such movement of the chin is so much less and requires so much more force to be applied that the sign is an effective way to assess the level of consciousness of a patient recovering from an anaesthetic.

Sometimes a patient may actively move his foot in response to the passive movements. Alternatively he may raise his head in puzzlement as to what is going on. Either reaction confirms the alertness of the patient.—I am, etc.,

E. N. S. FRY

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Diet and Colonic Cancer

SIR,—With reference to your leading article (2 March, p. 339) we agree that it would be of interest to know if the incidence of cancer of the large bowel is appreciably lower in vegetarians than in the rest of the population. At present it is estimated that there are between 100,000 and 500,000 vegetarians in Britain. For some years we have been studying the incidence of disease in vegetarians. The findings so far would indicate that there is no apparent difference in the incidence of cancer in general between vegetarians and the rest of the population.

Estimation of the incidence of cancer of the large bowel among vegetarians is no simple task. The average annual incidence of cancer of the large bowel among the general population is estimated to be in the region of 30-40 per 100,000. Thus the detection of any significant difference in its incidence between vegetarians and the rest of the population would require the study of a very large sample, possibly the total vegetarian population of the country. In practical terms this is very difficult. However, we are currently investigating the incidence of all cancers and other diseases of the alimentary tract in vegetarians and hope that this may throw some light on the matter.—We are, etc.,

FREY R. ELLIS

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Self-administered Clinical Questionnaires for Outpatients

SIR,—Drs. J. M. Gumpel and A. M. S. Mason (27 April, p. 209) have shown that standard items of information are obtained much more consistently by questionnaire than by conventional history taking. The information is also much more accessible since it is found in a standard place on a printed sheet not in a random spot in illegible notes. A longer questionnaire of the type they describe has been filled in conscientiously by more than 90% of new patients attending my clinic for the past 12 years. The practice may be the norm in a few years. A few additional hints may therefore be helpful.

(1) The questionnaire should be individualized to suit the clinician's specialty. My special interests are renal and hepatic diseases, so half my patients sent by general practitioners have urinary infection

or hypertension or both and half the referrals from other consultants are for renal failure. A questionnaire that did not explore these subjects in depth would be of little use to me but the three pages I give to renal disease would be excessive for most other clinicians. A personal version is not administratively difficult to use. The secretary knows which consultant the patient will see and can readily extract the appropriate version from a few files.

(2) There should be clear instructions on how to fill in the form—for example, "Please answer the questions by putting a ring round the appropriate answer." A questionnaire with the answers ringed is much easier to read than one with the alternatives deleted. Some questions are better couched in vernacular. A Tynesider instantly recognizes "backbody" and "forebody" as synonyms for anus and vulva.

(3) Positive (that is, pathological) responses should be arranged down the right hand side of the page, with a wide margin for brief comment, like this:

Can you start to pass water without hesitation?
Yes No.

Do you dribble for a while after stopping?
No Yes.

How often do you rise at night to pass water?
Never Occasionally Regularly Twice Thrice
once once or more

With this arrangement a largely negative questionnaire can be read at a glance.

(4) Family history is difficult to obtain on a questionnaire. I have found it necessary to mention each category of relative individually and ask specifically for age, state of health, or cause of death.

(5) Information about past and present drug therapy is important. Analgesics and oral contraceptives are worthy of specific questions since they are often omitted if not spelt out in detail (including common trade names of analgesics). Drug identification at the clinic can be improved by using a sample display, which must be kept in a locked cupboard when not in use.

(6) A modified questionnaire can be used for the repetitive questioning of follow-up, such as in dialysis and transplant review clinics. One has been used at our dialysis follow-up clinic for five years and has proved invaluable in research as well as patient care. It is readily adaptable to computer storage. We are experimenting with one for conservative management of chronic renal failure.

(7) It is uneconomic to print individualized questionnaires but cyclostyled versions are acceptable and may be revised in the light of experience. Some questions have to be eliminated because they generate too many positive responses—about half the women in this area claim to be uncomfortable in both hot and cold weather. No rephrasing of these questions eliminated the false-positives answers.—I am, etc.,

DAVID KERR

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Nurses in Administration

SIR,—For some considerable time members of the medical profession have been using your correspondence columns to express their disquiet with the consequences of the Salmon recommendations for nursing staff. I would like now to draw the attention of your readers to an even more pernicious development in nursing care than Salmon. This is the proliferation of administrative nurses which is a consequence of the reorganization of the Health Service and the setting up of the area health authorities.

In the Cleveland A.H.A., where I work, we formerly had three general hospital groups, each of which had been Salmonized with appropriate administrative nurses and, in addition to this, we had two local authority nursing services, each of which had