SIR,—Your leading article (24 May, p. 464) on this subject provoked a disappointingly short correspondence. Like Professor J. H. Middlemiss (11 October, p. 107) I felt that the main issue rapidly became lost.

Universities will obviously continue to express their ideas regarding educational priorities in general. It is up to faculties of medicine to provide the essential support for academic departments of radiology. At present universities are not greatly concerned with postgraduate education. The coming of Todd¹ may provide the necessary stimulus, and indeed health departments may find themselves in the position of making a case for additional academic units. It is my belief that radiology in the United Kingdom has a poor "chance" in the absence of the energetic support of both these bodies.

Radiologists are well aware that academic development in radiology cannot be hurried, but they would like to see a definite start being made.—I am, etc.,

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REFERENCE

- ¹ Royal Commission on Medical Education, 1965–68: Report 1968, Cmd. 3569. London, H.M.S.O.

Follow-up after Abortion

SIR,—We reported earlier (22 February, p. 506) some preliminary impressions of our experience in this area of all patients referred for termination of pregnancy since the Abortion Act came into force.

The women referred were given a full psychiatric interview before deciding whether termination should be carried out. Of the 72 cases referred, there were 53 married or cohabiting and 19 were unmarried women. Fifty-nine of the 72 women were accepted for termination. This included 45 of the 53 married women and 14 of the 19 single women. A conscientious attempt was made in all cases to follow the guide lines of the Abortion Act. Termination was advised when the psychiatrist considered that continuation of the pregnancy would involve a greater burden or greater emotional strain than the woman should be expected to endure or could be expected to tolerate. The state of the marriage (or absence of marriage), the number of young children, and closeness of recent pregnancy or pregnancies and the economic situation were all considered in relation to the woman's psychiatric state, especially the degree of depression, her estimated stability, and her personality.

The follow-up of all these cases has confirmed the preliminary impressions previously reported. Of the 13 cases rejected at the time of referral, the final outcome so far as the mother is concerned may be considered as satisfactory. Minor symptoms only have been mentioned in two cases. In the 59 cases accepted for termination 45 of these were found to be completely well, without any self-reproach or psychiatric symptoms which could possibly be related to the termination. These included seven who were specially enthusiastic, claiming that they had "never felt better" or some similar statement. The 45 cases included three cases where pre-pregnancy psychiatric symptoms existed. No deterioration occurred in any of these, and in fact one was slightly improved at the time of review. The 10 cases who had at one or other

or both reviews shown some self-reproach were only mildly inconvenienced by these feelings, and the social worker obtained the impression that in some cases the women seemed to think that this was what they were expected to say. In none of the cases did the feelings expressed or the condition of the patient constitute an illness or disturbance warranting psychiatric treatment.

The follow-up period is still relatively short, although other studies, especially that of Höök,¹ have shown that where difficulties or symptoms have occurred they have occurred earlier rather than later. The results so far confirm those of the preliminary survey in that none of the cases followed-up have shown any significant psychiatric symptomatology which could be related either to the termination of the pregnancy or to rejection of the request for abortion.—I am, etc.,

AARON GILLIS.

Cherry Knowle Hospital,
Sunderland, Co. Durham.

REFERENCE

- ¹ Höök, K., *Acta Psychiatrica Scandinavica*, 1963, 39, Supplement 168.

Premedication for Hypotensive Anaesthesia

SIR,—I have read with interest Dr. P. J. Thompson's letter (2 August, p. 300), as, with small but important differences, we have been using similar techniques for aural surgery for many years.

Until early this year our procedure was as follows: Premedication with papaveretum 10 mg., hyoscine 0.4 mg., and haloperidol 2.5 mg. given 1–1½ hours prior to induction. Induction was with sodium thiopentone 250–400 mg. suxamethonium 75 mg. followed by intubation. Maintenance was achieved with mild hyperventilation with N₂O:O₂ (2 l./m: 1 l./m) in a closed circuit using an East Radcliffe ventilator with negative pressure during the expiratory phase. On the return of spontaneous respiration, D-tubocurarine chloride 20–30 mg. was given, and increments of curare and thiopentone were given when indicated during operation.

The external auditory meatus was infiltrated with lignocaine and adrenaline and the table tilted about 10° head up. By these means systolic pressure was reduced to 80–100 mm./Hg and in most cases satisfactory operating conditions ensued. This year we have introduced fentanyl 0.2 mg. about five minutes before induction with increments of 0.1 mg. as indicated. Otherwise the anaesthetic is conducted exactly as before except that less thiopentone is used. (150–300 mg.)

Like Dr. Thompson I find that the blood pressure does not fall as readily or as far since using fentanyl, but I still do not experience troublesome bleeding. I cannot explain why fentanyl should appear to block the hypotensive action of halothane, but suggest that, as halothane is a potent vasodilator, if the pressure does not drop, bleeding may be troublesome. Atropine too produces tachycardia and an increase in cardiac output which, when I have allowed bradycardia to frighten me into giving it, has elicited immediate surgical protest about bleeding. I have always used intramuscular hyoscine as a premedicant, feeling that its vagolytic action is adequate and its sedative and amnesic properties a useful adjunct. I do not think the butyrophenone derivatives affect the issue in either direction, but I prefer to use halo-

peridol for its more prolonged anti-emetic effect.

Dr. Thompson does not say whether he uses negative pressure during the expiratory phase—I do, having an unproved and purely clinical impression that it minimizes venous congestion and helps to reduce bleeding.—I am, etc.,

J. G. GOODBODY.

Sir Patrick Dun's Hospital,
Dublin 2.

SIR,—I read with interest the letters of Dr. P. J. Thompson (2 August, p. 300) and Dr. F. S. Keddie (4 October, p. 51) concerning premedication for induced hypotension. Their experiences certainly do not accord with my own. For some time I have used droperidol 5–10 mg., papaveretum 10 mg., and atropine 0.6 mg. as premedication prior to inducing hypotension. Induction of anaesthesia has been with either a further dose of droperidol 5–15 mg. followed by fentanyl 0.4–0.6 mg. with suxamethonium to aid intubation, or thiopentone followed by D-tubocurarine prior to intubation.

Both groups are ventilated with oxygen and nitrous oxide, and fentanyl 0.05–0.1 mg. is given to all patients to maintain adequate analgesia. Hypotension is induced with appropriate doses of either pentolinium or trimetaphan. I have found this technique to give satisfactory results in almost all patients. Tachyphylaxis and tachycardia are uncommon, and the latter can usually be controlled with a small dose of propranolol.

I would agree with Dr. Keddie in questioning the rationale of giving atropine 0.6 mg. at induction. Satisfactory operating conditions will not be produced in the presence of a tachycardia. It would be interesting to know if Dr. Thompson's results could be improved by omitting the atropine. I agree that cardiovascular stability is a feature of anaesthesia after droperidol premedication, but do not agree that its use prior to induced hypotension is contraindicated. Indeed, Larson¹ has reported a series of 25 patients premedicated with droperidol and atropine and induced with a further dose of droperidol and fentanyl. Hypotension was produced with ganglion-blocking drugs, and he states, "Ease in controlling the level of hypotension, and absence of tachycardia and tachyphylaxis, were noted."—I am, etc.,

M. MORGAN.

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Hospital,
London N.17.

REFERENCE

- ¹ Larson, A. G., *Lancet*, 1963, 1, 128.

"Prune-belly" Syndrome

SIR,—Some children born with congenital defect of the abdominal muscles have the "prune-belly" appearance in early life, but the term is generally applied to older children where there is characteristic irregular distension, especially when intra-abdominal pressure is increased.

It has been pointed out that if a binder is applied to the abdomen from the earliest days the end result can be appreciably improved. Presumably the existing muscle elements are protected and enabled to grow across more effectively to fill the gap. This has been documented photographically,¹ and

raises the point that the presence of the prune-belly syndrome in an older child should be unacceptable because it represents failure to apply early preventive treatment.

In addition to the psychological and cosmetic benefit it might well be that the stronger abdominal wall would also be a positive advantage in the child's urinary dynamics.—I am, etc.,

NEIL O'DOHERTY.

West Middlesex Hospital,
Isleworth, Middx.

REFERENCE

- ¹ Gellis, S. S., and Feingold, M., *American Journal of Diseases of Children*, 1965, 109, 571.

Febrile Convulsions

SIR,—Dr. N. S. Alcock in his letter (13 September, p. 655) seems to me to reveal the confusion which exists in the minds of most medical as well as lay men regarding the meaning of the word epilepsy. If he would formulate a useful definition of the word he would better be able to test the validity of his implied assertion that children who have febrile convulsions are epileptics. Perhaps he would argue that everybody is an epileptic. His use of the term "epileptic threshold" seems to suggest this. However, it would be small comfort to the parent of a child who asks: "Doctor, is he an epileptic?" to be told: "Madam, we are all epileptic." Nor will this approach clarify our thoughts about the best treatment of the individual patient.

I will not presume to enter the lists in the argument for or against lumbar puncture in the investigation of all convulsions. That is another question.—I am, etc.,

G. P. McMULLIN.

Nottingham Children's Hospital,
Nottingham.

Hypotensive Reaction after Propanidid and Atropine

SIR,—We would suggest that hypotensive reactions to propanidid are not as rare as Dr. B. Kay (16 August, p. 413) and Dr. G. Johns (4 October, p. 52) would seem to suggest. In low dosage (4 mg./kg.) after atropine premedication, thiopentone and propanidid have a similar and low incidence of hypotension,¹ but with doses over 7.5 mg./kg. the incidence after propanidid is about 30% or three times that with thiopentone.² The limit regarded as significant in the above studies was a fall of 40 mm. Hg, but with large doses of propanidid several patients showed extreme hypotension to be restored by lowering the head of the table and inflation with oxygen. These studies were carried out injecting at the slow rate of 1 ml./4 seconds and faster rates undoubtedly increase the incidence of hypotension.

All such cases showed a widespread peripheral vasodilatation, though the work of Johnstone and Barron³ suggests that cardiac depression is an important factor. With a drug of such short duration as propanidid it is tempting to give more than is strictly necessary or safe as an initial dose to pro-

long anaesthesia. However, not only does this increase the dangers described but it increases the incidence of excitatory phenomena and hiccough. Podlesch and Zindler⁴ and Lear⁵ have also stressed the dangers of propanidid in the "poor-risk" patients and the necessity to reduce the dose. It seems, therefore, that the cases described by Dr. Kay represent the marked hypotensive response to a relatively large dose of propanidid in ill children.—We are, etc.,

R. S. J. CLARKE.
JOHN W. DUNDEE.

Royal Victoria Hospital,
Belfast.

REFERENCES

- ¹ Dundee, J. W., and Clarke, R. S. J., *British Journal of Anaesthesia*, 1964, 36, 100.
² Clarke, R. S. J., and Dundee, J. W., *Proceedings Fourth World Congress of Anaesthesiology*, 1969, Excerpta Medica Foundation, in press.
³ Johnstone, M., and Barron, P. T., *Anaesthesia*, 1968, 23, 180.
⁴ Lear, E., *Anesthesia and Analgesia Current Research*, 1968, 47, 154.
⁵ Podlesch, I., and Zindler, M., in *Die intravenöse Kurzarkose mit dem neuen Phenoxycyessäurederivat Propanidid*, edited by K. Horatz, R. Frey, and M. Zindler, p. 160, 1965. Berlin, Springer-Verlag.

Equipment for Road Accidents

SIR,—I read with interest the article on equipment for use at roadside accidents (25 October, p. 214). In this a list of equipment is suggested for general practitioners to carry. I feel that one could make a strong case for the supply by the Ministry of Health of a small basic kit to all medical practitioners in whatever branch of medicine they are employed—for example, in my own specialty, psychiatry.

The article points out that the accident services are tending to be more and more centralized all the time, and the time which elapses between the accident and the patient being admitted to an accident unit is therefore likely to be longer. Having quite recently been first on the scene at two road accidents, while able to use makeshift splints and so on, I was unable to give the patients what they probably needed most—a pain-relieving injection—because I was not carrying at the time the syringes and a supply of morphine or pethidine. The Ministry of Health could surely devise a small standard kit which all doctors could keep in their car for use in such circumstances.—I am, etc.,

W. J. STANLEY.

Marple, Cheshire.

Respirators in Respiratory Failure

SIR,—I am grateful to Professor J. S. Robinson for clarifying the misconception arising out of the reporting of comments made by him at the Annual Scientific Meeting of the B.M.A. at Aberdeen (19 July, p. 165). I am pleased to note his remark (27 September, p. 780) that there is indeed still a place in medicine for the cabinet respirator. However, I cannot accept as valid his assumption that because the Cape Engineering Co. have neither sold nor manufactured these machines in recent years it is proof that they are obsolete or useless. The fact that the demand for them has so drama-

tically vanished does not mean that it is accepted that they are valueless. It merely indicates that the disease for which they were devised had virtually disappeared shortly after the machine was produced. The manufacturers are not subsidized to keep stock of expensive apparatus for potential sales in such circumstances.

In the same issue (p. 781) Dr. G. T. Spencer has most ably demonstrated the class of case in which the cabinet is so valuable. Moreover, the final sentence of his letter adds weight to the point I have made above concerning the commercial aspects of demand and supply. I would, however, like to add that not only those patients with chronic respiratory defect will continue to require that machine, but also those who are in the acute stage of respiratory paralysis and in the category mentioned by Dr. Spencer. From a very wide experience of the cabinet in such cases—and indeed in those with total respiratory paralysis—I should be sorry to see a void left in the availability of this machine and in the expertise needed in its application. It would be unwise to assume that acute poliomyelitis leading to such a class of respiratory defect will never again occur, either sporadically or in epidemic form.—I am, etc.,

W. HOWLETT KELLEHER.

Bournemouth, Hants.

Know Your Nematodes

SIR,—Last week I watched an episode of a programme called "Know Your Onions" on B.B.C. 2 in which the participants talked about the preparation and cooking of a set meal. Eventually the question of sausages was discussed. You can imagine my concern when I saw one of the "experts" cut into what appeared to be the raw article, extract a morsel, and eat it.

If the sausages were pork, as I imagine they were, the technique demonstrated was ideal for acquiring trichinellosis. Anyone who had the misfortune to see the patients infected during the outbreak in Liverpool in 1953 will share my concern at this deplorable failure to respect the simple elements of hygiene.

If the particular individual in the programme likes his sausage meat that way that is his own business, but since it can be presumed that this programme has some following the B.B.C. should surely pay reasonable attention to health details in it.

I have written to you rather than to the *Listener*, which I suppose would be the more obvious thing to do, because my last letter to that journal was not published. In it I pointed out that the television doctor had given a programme on the medical aspects of holidays abroad without mentioning the dangers of imported disease in the returned traveller. In view of the extensive literature on the subject—for example, the recent report of 2,000 cases of falciparum malaria with 58 fatalities over the last 15 years in this country¹—I regarded this as quite a performance.—I am, etc.,

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Liverpool L3 5QA.

REFERENCE

- ¹ Shute, P. G., and Maryon, M., *British Medical Journal*, 1969, 2, 781.