try, knowing that consultant posts are not likely to be available for them, we should welcome them and use them. Their numbers may well diminish during the next ten years or so, but they at least give us a chance to adjust to the new situation gradually.

If and when these most valuable Commonwealth doctors do stay at home our problem will become more difficult. I don't think the "medical assistant" grade will ever get off the ground, but the "assistant surgeon" with the promise of full status after a limited period—perhaps of only three or four years—may perhaps be more acceptable.

Finally, there must be many hospitals where even now the resident strength is well below what has formerly been regarded as desirable, and it would be interesting to hear the views of the consultants involved.—I am, etc.,

Coventry,
Warwickshire.

T. H. BERRILL.

Maternity Services

SIR,—Like the National Health Service, the maternity services in this country are undergoing a revolution, and there is an air of change for the better in the future. But there are so many authorities concerned, and so many interests to be considered, that the necessary change is in imminent danger of being delayed—perhaps for decades. Perhaps, if fundamentals could be agreed, progress might be more rapid. (1) There is fairly universal agreement that 100% hospital delivery is desirable. (2) The structure of the maternity services for centuries in this country has generally considered that (a) the patient comes first; (b) then the midwife; (c) the general practitioner next, and (d) the consultant. Given time the two fundamental facts may be achieved.

To apply this to the Harrogate area—

(1) For 20 years we have been striving towards a 100% delivery rate in hospital. We are fortunate, for at least 15 years we have never had less than an 80% rate; in 1967 it was 91.5%; we could tomorrow make it 100%. This has been achieved by means of the now accepted early discharge and the opening of a 20-bedded antenatal ward four years ago. As regards early discharge, 48-hour, or what you will, may be administratively tidy, and a 10-12 day stay may have suited the Central Midwives Board for their Part I pupil midwife training schools, but as clinicians we know quite well that time, as regards stay after delivery, is infinitely variable. I would have no objection to 80% of the patients going home in 12 or even three hours, provided their physical and social conditions permit. In fact there are many advantages in this. On the other hand, some patients really require a 1-6 months' stay after delivery.

(2) How does this fit in practically with the structure of the maternity services? Again, I can only give an opinion as it applies to this area.

(a) *The patient.* She now gets better care during pregnancy, labour, and the puerperium than she ever did before. There is, however, still far too much bouncing about between the midwife, general practitioner, hospital, and local authority.

(b) *The midwife.* Very recently a Ministry directive has permitted domiciliary midwives to work in hospitals. Already this is too late for us. And in any case it is very doubtful how many domiciliary midwives will wish to work in hospitals unless the red tape is completely severed—which is certainly not yet. Domiciliary midwives have their independence and import-

ance in the community. If they were permitted to deliver their own patients in hospital without let or hindrance, and exactly on the same conditions by which they now deliver them at home, there would be no problem. But they must have the full hospital facilities for delivery and care of the child, and be able to call upon the general practitioners and consultants as required. As it is, our domiciliary midwives must at present be satisfied with an annually decreasing number of home deliveries, and have the very unsatisfactory job of looking after an increasing number of early discharges. Even if they could have access to deliver their patients in hospital—and we are willing to let them—there are far too many other administrative difficulties to make it feasible.

(c) *The general practitioner.* In this area they have a first-class 14-bedded unit, but it is not nearly enough. We have a high proportion of well-trained excellent general-practitioner obstetricians. We would like them to come into hospital. It is not possible because:

(i) We are a Part I training school for pupil midwives and the Central Midwives Board will not permit general practitioners into our unit.

(ii) They would all have to have a contract with the regional board, which is possible, but difficult.

(d) *The consultant.* No need for comment.

Eventually, no doubt, all women will be delivered in hospital under the united team of midwives, general practitioners, house officers, and consultants—as indeed is visualized in the recent publications of the Royal College of Obstetricians and Gynaecologists.¹

The one thing I disagree with in this report is that teams should be formed of which the consultant will be the leader. We have enough of the Army already in the N.H.S. I see no difference between a general practitioner calling in a consultant obstetrician, and a general practitioner calling in a consultant surgeon if he thinks he has a case of appendicitis, or a physician if he needs medical advice. Nor do I think beds should be allocated to midwives, general practitioners, or consultants. Beds should be for the patient. The numbers under each category will obviously vary from day to day, but I should imagine that overall they would average out at some 50% for midwives, 30% for general practitioners, and 20% for consultants.

This ideal (or something like it) will be achieved—but when? I suggest it is up to midwives and doctors, and not administrators, to decide.—I am, etc.,

C. RUTHERFORD MORISON.

Harrogate, Yorks.

REFERENCE

- ¹ *Report of Council of Hospital Obstetricians and General Practitioners. Royal College of Obstetricians and Gynaecologists Pamphlet, July, 1968.*

Hospital in Salford has gone a long way in resolving this difficulty. The mother is under the sole care of her own general practitioner and domiciliary midwife, is delivered in the unit, and is taken home within hours of delivery. From the patient's point of view this means continuity of care (antenatal, intrapartum, and postpartum) and from the hospital midwifery sister's point of view it avoids having to deal with 40 or 50 general practitioners, each with his own ideas of management in labour and the puerperium.

With our system there has been no upset in hospital routine; it has improved the liaison between the general practitioner and the hospital obstetrician, and between the domiciliary midwife and the hospital midwife. The general practitioner seeks early (and obtains) a second opinion from the hospital obstetricians and paediatricians if the labour shows signs of becoming abnormal, or if there is any difficulty with the baby. The transfer of a patient from her home to hospital late in labour with all the associated difficulties and dangers is obviated.

Dr. Gareth Lloyd (21 December, p. 776) states that if present trends continue a nurse with less specialized training could carry out the postnatal care. With our scheme the domiciliary midwife maintains the functions for which she was specially trained. In fact, the only change in the role of the domiciliary midwife is for the better. She works in more satisfactory surroundings, and has all the facilities and services of the hospital in an emergency if the general practitioner cannot be contacted. It may well be that the midwives of the future will be unified under the hospital administration; the "domiciliary" midwife will work in units of this type, will also carry out the reduced number of domiciliary deliveries, and will look after the early discharges (if any) from hospital.

This scheme solves many of the other problems mentioned by Dr. Lloyd: "conducting delivery in a place of maximum security" yet allowing for the "strong desire by many general practitioners to become a part of the hospital-centred unit." As Dr. F. E. S. Hatfield points out (21 December, p. 776), it avoids the emotional hazards of the mother being separated from her other children. In many cases the mother has been back in bed at home without the other children knowing that she has been away.

Our experience has been more encouraging than that of Professor P. Rhodes (23 November, p. 509). With four beds we have safely delivered more than 600 women in the two years the unit has been opened, and the numbers are increasing month by month (compared to 86 in two and a half years at the Lambeth Hospital).—I am, etc.,

Hope Hospital,
Salford, Lancs.

E. E. RAWLINGS.

Amphetamine Theft

SIR,—I would like to draw the attention of your readers to a seldom-encountered risk. The photographs show a particularly criminal method used by an addict (unfortunately undiscovered) to obtain a supply of amphetamine (Methedrine). These ampoules, with various other anaesthetic drugs, were set out daily for the operating lists at the Princess Margaret Hospital, Swindon. As can be

seen, a small hole had been made in the neck of the ampoule, the contents abstracted and replaced by water, and the inert and contaminated phial carefully put back in the rack, with the hole at the back, where it was virtually invisible. Fortunately, an astute staff nurse noticed this, and Methedrine has now been withdrawn from the racks.

Although the enlargements make the holes appear obvious, I can assure you that in fact they were incredibly inconspicuous. It was most fortunate that no use was made of these drugs on any patient with congenital or rheumatic heart disease.—I am, etc.,

R. B. ROE.

Department of Anaesthetics,
Princess Margaret Hospital,
Swindon.

Screening for Phenylketonuria

SIR,—At a time when it is widely appreciated that a change must be made from the Phenistix to a more reliable method, it is particularly regrettable that official guidance from the Ministry of Health circulated on 4 October to the regional hospital boards, local authorities, and all general practitioners should carry the heading "Screening for Phenylketonuria by the Guthrie Blood Test Method" and by every emphasis imply that this is the method of choice, and that the recommendation is based on the Report of the Medical Research Council Working Party on Phenylketonuria (5 October, p. 7). The Ministry letter, referring to the Report, says, "The evidence available at present indicates that this test [the Guthrie on blood] is least likely to fail to detect phenylketonuria in an affected newborn infant. . . ." The letter fails to say that the 1965 Working Party was concerned with the appraisal of four tests, and only four tests—namely, the Phenistix test, Guthrie test on blood, Guthrie test on

urine, and the paper chromatography of *o*-hydroxy-phenylacetic acid in urine, of which they considered the Guthrie test on blood the most satisfactory.

In point of fact the Working Party comments that the paper chromatographic technique is simply and cheaply performed in large numbers, and advocates the continued use, and further study, of alternative screening tests, but they did not themselves assess the plasma chromatographic technique¹ as used by Komrower *et al.* in Lancashire² at a time when the Medical Research Council study was already under way, nor did they consider the relative merits of screening procedures for inborn errors of metabolism other than phenylketonuria, though they comment that the chromatographic procedures "have the merit" of detecting more than one disease.

Experience has shown that plasma chromatography is simple, cheap, and reliable. Heparinized capillary blood samples, of which 0.01 ml. is used, are as easily collected, dispatched to the laboratory, and identified as are blood-impregnated discs for Guthrie. In practice, the quantitative evaluation of zones of growth in the Guthrie test is not always easy, no permanent record is available, borderline positive tests might be missed by junior staff suffering the boredom of repetitive work, and the rate of referral for full chemical investigation might be unnecessarily high. Preliminary screening should not be done by technicians in a bacteriology laboratory when all subsequent work must revert to a more relevant department. Indeed, if screening is to be confined to phenylketonuria then automated fluorimetry would be preferable.

When the choice plainly lies between two simple and cheap tests (such as the Guthrie and the Scriver)—one of which detects only phenylketonuria and the other phenylketonuria plus other aminoacidopathies—what possible justification can there be for choosing the limited test? Some of the other aminoacidopathies lead to mental and physical disease whose treatment, in the interests of both patient and community, is as desirable as that of phenylketonuria. The fact that treatment of some of these conditions is at present less well established than that of phenylketonuria, or even as yet non-existent, is merely a challenge to identify the conditions and learn more of their nature, as indeed was the situation with phenylketonuria itself not so long ago.—I am, etc.,

MARY McMILLAN.

Lewisham Group Laboratory,
London S.E.13.

REFERENCES

- 1 Komrower, G. M., Fowler, B., Griffiths, M. J., and Lambert, A. M., *Proc. roy. Soc. Med.*, 1968, 61, 294.
- 2 Scriver, C. R., Davies, E., and Cullen, A. M., *Lancet*, 1964, 2, 230.

Radiocontrol for General Practitioners

SIR,—Radiocontrol of the domiciliary midwives in Lincoln started in December 1966. Each midwife has a small receiver and transmitter which easily fit into uniform pockets and together weigh 18 oz. (510 g.). Soon after this move it became obvious that general practitioners also could use this equipment

to great advantage. As Lincoln employs only 10 domiciliary midwives, and the total number of general practitioners is approximately 45, it was felt that a number of doctors would be able to use the system without overloading the control station. Several expressed an interest and borrowed the equipment for trial purposes. Each general practitioner who tried out the equipment has subsequently decided to purchase his own set.

The scheme in Lincoln is that the general practitioners purchase their own pocket receiver and transmitter and have the use of the main transmitter equipment and control service of the City Ambulance Service—the ambulance station control room being manned day and night. The Lincoln City Council have agreed to this arrangement and make a nominal charge for the service provided. The advantages for both doctors and patients are manifold. A general practitioner is expected to be available at short notice to deal with emergencies. When he is visiting the homes of his patients, it is virtually impossible to contact him. With radiocontrol any messages requesting the doctor to visit can be transmitted to him, if necessary, as soon as they are received and time in travelling can be reduced considerably. If a general practitioner wishes to call an ambulance, order oxygen for a patient, contact the hospital, etc., he can do this by radio and does not have to leave the patient or go to the nearest telephone. The use of radiocontrol by general practitioners in and around Lincoln has gradually expanded over the past two years, and approximately half of them now use the equipment. All are most enthusiastic about the help it has been to them and also to their patients.

Several local authorities have now arranged radiocontrol for their midwives, but I am not aware of any, apart from Lincoln, which have allowed general practitioners to take part in the scheme. This is a splendid example of co-operation between general practitioners and the health department. Experience indicates that a suitable "module" is 100,000 population with about 55 general practitioners and 10 midwives. With this number, messages at busy times would not be so frequent as to lead to confusion.

The main point of my letter is to draw attention to the fact that local health authorities in many areas are organizing radiocontrol for their staff, and now is the time to organize this on a rational basis and cater for the needs of general practitioners as well. In some large cities, control has been arranged using five or six transmission stations of the same radio frequency and catering for 50 to 100 staff. Clearly, general practitioners will not now be able to join in such schemes, as the total number of participants would be excessive. I feel the time is appropriate for a working party to be appointed to consider the whole problem of communications both inside and outside hospitals. If the Ministry of Health and Social Security feels that this is not necessary, possibly the Royal College of General Practitioners could take the initiative and inquire into and report on communications outside the hospitals. The opportunity has already been lost in some areas and further delay is inexcusable.—I am, etc.,

R. D. HAIGH.

City Health Department,
Lincoln.