services, the working party's proposals seem prejudicial to their optimal development.—We are, etc.,

R. SEAR.
B. J. BOUCHER.
M. COHEN.

Departments of Physics and Medicine,
The London Hospital,
London E.1.

REFERENCES

- 1 Working Party on the Organisation of Radioactive Isotope Services. *Report*. London, H.M.S.O., 1970.
- 2 Department of Health and Social Services. *Hospital Scientific and Technical Services. Report of the Committee 1967-1968*. London, H.M.S.O., 1968.

Sensitivity Tests in Tuberculosis

SIR,—Your leading article's approach (5 September, p. 538) to the management of tuberculosis may suit developing countries, but will not be accepted in Britain where the cost of the bacteriology is a trivial fraction of the outlay on a case. The mistreatment of one patient is more expensive than a precautionary test for 99 others. Moreover, both patient and physician are anxious to switch from triple to dual chemotherapy, a transition which can be made earlier and with more confidence when the organism has been shown to be sensitive. The suggestion that cases can be managed by reference to quantitative microscopy will gain little support here. In Britain it is essential fully to identify isolates from cases diagnosed as tuberculosis since 2% prove to be infections due to opportunist mycobacteria. Combining a sensitivity test with the identity check adds little to its cost and contributes to its efficiency.

The warning in your leading article against the dangers of inaccurate sensitivity tests is fortunately being overtaken by events. The remedy is of course not the abolition of such tests but their improvement. Evidence will be published in due course that this has been furnished by the Public Health Laboratory Service scheme of regional centres working with the Tuberculosis Reference Laboratory. All we need is the widest possible use of this facility which is available to the whole of England and Wales. Scotland has made similar arrangements.—I am, etc.,

J. MARKS,

Director,
Tuberculosis Reference Laboratory.

Cardiff.

Fatal Intrathecal Penicillin

SIR,—In your description of the inquest (15 August, p. 412) it was stated that the child died from convulsions following the intrathecal injection of a mega-unit of penicillin and that there was nothing that could be done to reverse the effects.

An analogous situation may rarely occur following the inadvertent injection of water-soluble radiographic contrast medium into the subarachnoid space. This has been successfully treated¹ by controlling the convulsions with curare and artificial ventilation while at the same time the theca was irrigated with normal saline through the cisternal and lumbar routes. I am not aware

that this method of treatment has been used to reverse the effects of penicillin or other toxic substances in the theca, but it would seem worthy of trial in such an emergency.—I am, etc.,

Liverpool.

G. ANSELL.

REFERENCE

- 1 McCleery, W. N. C., and Lewtas, N. A., *British Journal of Radiology*, 1966, 39, 112.

Remissions in Diabetes Mellitus

SIR,—I am spurred to write this letter by your admirable leading article (5 September, p. 539) though I realize that my experience is insufficiently documented to be convincing to severer critics. The records were unfortunately lost during the last war. Nevertheless, the report may have some slight intellectual value for workers in the field of diabetes.

In 1936 I was consulted by an elderly clergyman whom I found to be severely diabetic. His symptoms were recent. He had those associated usually with the juvenile form of the disease, polydipsia, polyuria, fatigue, and severe loss of weight. His glucose tolerance test confirmed the diagnosis of diabetes mellitus. His disorder was stabilized by insulin and he became completely well. I observed him until I left my then place of work in early 1938. In the summer of 1939 he became ill again and followed me to London, when I found that in spite of following a rigid diet and continuing to use insulin he had become desperately ill with loss of weight and severe glycosuria and ketonuria. I told him that he must enter hospital immediately.

He refused my advice. His sister was dying in Hastings and no words of mine would dissuade him from going there. I arranged for his admission immediately on his return. When he came, some ten days later, and I called on him promptly, I was greeted by a puzzled look from a sister who had expected a dying man. He looked extremely well, had put on weight, and had neither glycosuria nor ketonuria. His glucose tolerance test was normal.

He told me that on leaving me ten days earlier he had attempted to board a moving train at Oxford Circus. His foot had been trapped and he had been pulled the length of the platform before it was released. In his own words, "I was terrified. I heard in my ears the beating of the wings of the angel of death." He had no injuries other than bruises and continued his journey to Hastings. From that moment he "felt a new man."

I know that he remained well for a year with no treatment, but the war separated us. I heard of his death a few years later, but the doctor who attended him had died too and I never learned the cause, despite many enquiries.

The shock of his accident must, one feels, have produced an increase in adrenal medullary secretion which should have inhibited insulin secretion, if he had any. Why then did he immediately experience a remission, which may not have been permanent but certainly lasted for about a year?—I am, etc.,

RAYMOND GREENE.

London W.1.

Folate and Vitamin B₁₂ in Epilepsy

SIR,—I was interested in Dr. C. Neubauer's article (27 June, p. 759), but the following points are some that need to be explained before his conclusions on the efficacy of giving folic acid and vitamin B₁₂ to prevent mental deterioration in epileptics on anticonvulsants can be accepted.

The investigation is concerned with folate deficiency in 50 epileptic children and adolescents who have been on anticonvulsants from one to 11 years (Table I), and if the case numbers in Table III refer to this trial then 17 patients, at least, have been excluded and the reasons for this have not been mentioned. Has bias already entered into the selection of cases?

If the figures in Table II relate to the start of the trial, then 22 patients (44%) in columns 3 and 4 who have serum-folate levels within the accepted normal Newcastle range from 3 to 20 ng./ml. have been included and have presumably been given a maintenance dose of 5 mg., at least, of folic acid per week. At what more normal limits could their serum-folates be maintained?

What doses of folic acid were given to the 17 and 10 patients in columns 2 and 4 respectively of Table II?

Did serum-folate levels rise in all the 50 patients during the course of the trial? Was any relationship noted between these levels and the improvement in mental condition that was reported in 22 patients?

Actually 39 patients have been mentioned as showing improvement in their mental condition under 15 group-headings, but there is no record of the overlapping between groups that must have been present to reduce this figure to 22 patients showing some improvement.—I am, etc.,

A. J. RALSTON.

Oulton Hall Hospital,
Leeds, Yorks.

Home or Hospital?

SIR,—Your admirable leading article on this subject (15 August, p. 357) is timely and of very great importance. I should like to underline some of your observations and add a few of my own.

During the last 15 years or so I have supervised well over 1,000 home confinements. During that time a method of family doctor obstetrics has been developed and has gradually improved in efficiency, and this has to a great extent been due to midwife attachment and readily available pathological and other hospital services. Our method is not difficult and its aim is absolute continuity of care. At each attendance the patient is examined by three members of a team—a pupil midwife, an experienced midwife, and a doctor. In this way it is rare for anything to be forgotten or for anything abnormal to be missed. The patient is nearly always attended at her confinement by the same team.

As the national trend has been a gradual increase in the relative number of hospital deliveries the trend in this practice has been in the opposite direction and yet has been related to a low perinatal mortality: 4/1,000.¹ We never persuade patients to have home deliveries and always insist on hospital delivery where indicated.

The recent report of the committee headed by Sir John Peel² is an admirable one, but I think it is based on inadequate knowledge of the real situation. I imagine that the report is based on the standard of teaching hospitals and it should be realized that these represent a minority of hospitals where good obstetrics is practised; in other places in my own experience the standard can be less than satisfactory. I submit that the statement that we should aim for 100% hospital confinement is quite wrong. Surely our ultimate aim should be a reduction in mortality and morbidity? There is certainly no convincing evidence that this would be achieved by 100% hospital confinement. Most women who have experienced both home and hospital will prefer home delivery, particularly as they all know that the great majority of confinements are uncomplicated. The report states that one of the reasons for the failure to achieve 100% hospital confinement in this country has been partly due to tradition, and that we have not emulated certain other countries in this respect. Is there convincing evidence from any of these countries that their results are better? I think not.

The idea of unifying the obstetric service is an excellent one, but the statement that domiciliary obstetrics should be organized from the hospital seems ill-advised. Surely it would be much better to have increasing time for expert consultation at family doctor clinics and in the patient's home. Most hospital facilities can be made available in the patient's home without much difficulty. This would have many advantages, not the least being a decrease in the amount of infection and an increase in successful breast feeding.

You suggest that the proposed new system might deteriorate into a factory production line. I have evidence that this is already happening.

If my ideas are sound and my experience valid, the subject is certainly of political importance as the new proposals would obviously increase the cost of the N.H.S.

Above all we should realize that obstetrics is as much an art as a science, and that the mother's choice of where she will have her baby—other things being equal—is of primary importance.—I am, etc.,

G. L. PARK.

London E.17

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- 1 Park, G. L., *Lancet*, 1968, 2, 1388.
- 2 *Domiciliary Midwifery and Maternity Bed Needs*, Report of the Subcommittee of the Standing Maternity and Midwifery Advisory Committee of the Central Health Services Council. London, H.M.S.O., 1970.

Anaesthetic Services

SIR,—Dr. T. H. Taylor and colleagues' researches into this subject (4 July, p. 39) have provided, for the first time, concrete evidence of the situation in this country.

It seems no exaggeration to state that, on a national scale, obstetric patients are being provided with a second, or even third-rate, standard of clinical care so far as anaesthesia and neonatal resuscitation are concerned. The effect of this in terms of morbidity is incalculable; the result

in terms of mortality (in respect to mothers, although not in respect to infants is displayed in the chastening figures contained in the most recent *Report on Confidential Enquiries into Maternal Deaths*.¹ I have dealt at some length with aspects of this subject,² and you referred to this in your recent leading article (23 May, p. 437).

During the past year a group of consultant anaesthetists (now approaching one hundred in number), having a special interest in obstetric problems, have decided to form the Obstetric Anaesthetists' Association (O.A.A.). After well-attended meetings in Liverpool, Birmingham, and London a steering committee (of which I have the privilege of being chairman) has been formed which will present plans for formalization of the association at its next general meeting in Glasgow in October. Our concern is not only with the details of clinical care of mothers and infants but also with the adequacy of staffing of obstetric units by anaesthetists.

There are two aspects to the question of staffing in our opinion: the provision of adequate on-the-spot trainee anaesthetist cover, with enough consultant supervision of the training of juniors; and the maintenance of satisfactory standards of equipment for anaesthesia and resuscitation. Most obstetricians, paediatricians, and anaesthetists have recognized for many years that the work of an anaesthetist in an obstetric department is of a specialized nature, demanding training and experience beyond that provided by the basic involvement in the work of a general hospital. The responsibility for this work is great, and it is highly undesirable that unsupervised and virtually uninstructed junior anaesthetists should have to bear it any longer.

To ensure a better and safer standard of patient-care in obstetric units encouragement must be given to the anaesthetic supervision of both mothers and infants by senior and experienced practitioners who have a contractual commitment to the work. It is ludicrous that within the 344 hospitals surveyed by Dr. Taylor only 222 consultant anaesthetist sessions were devoted to obstetric work, and that in no less than 242 of these hospitals there was no consultant with an official commitment to this important area of medicine.

Members of the Obstetric Anaesthetists' Association fully appreciate that a sudden increase in the number of consultant anaesthetist sessions available in the United Kingdom would throw considerable stress on other aspects of the anaesthetic services. However, members urge that remedial measures be undertaken with some urgency, and are eager to consult, through their representatives, with N.H.S. administrators, and with representatives of the general bodies of anaesthetists, obstetricians, and paediatricians to see how progress may most rapidly be achieved.—I am, etc.,

J. SELWYN CRAWFORD.

Birmingham Maternity Hospital,
Birmingham 15.

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- 1 Arthure, H. et al., *Report on Confidential Enquiries into Maternal Deaths in England and Wales* 1964-66. London, H.M.S.O., 1968.
- 2 Crawford, J. S., *British Journal of Anaesthesia*, 1970, 42, 70.

Soccer Supporters' Wrist

SIR,—I wish to draw attention to the occurrence of hyperextension wrist injuries to spectators at association football matches and to the characteristic manner in which they are sustained. These observations are the results of a three-year retrospective study of wrist injuries sustained by soccer supporters in Manchester who were treated at this hospital.

During the period of study seven cases of bony injury to the wrist were seen in football supporters. All were male and aged between 12 and 18 years. The injuries included three cases of greenstick fracture of the distal radius and ulna with dorsal angulation, three cases of fracture-separation of the distal radial epiphysis (one displaced, two undisplaced), and one case of fracture-separation of the distal ulnar epiphysis. All were single closed injuries.

Though this hospital is situated close to both the Manchester City and the Manchester United Football Club grounds, it is possible that many more such injuries occurred but were either treated at other Manchester hospitals or were sustained by visitors, who subsequently presented themselves at their local hospitals. It is interesting that on only one occasion was the attendance at which patients sustained these injuries less than 60,000.

The mechanism of injury in all cases was similar. Each patient stated that he had been standing immediately behind a crowd barrier with his hands on the upper transverse tubular steel bar, when a forward thrust of the crowd down the slope of the terracing behind him applied a crushing force to his shoulders and a forced hyperextension of his wrists. At one match three friends standing together received these injuries simultaneously.

Although it appears likely that similar cases of such injuries are being treated in accident departments in other hospitals I have been unable to find a description of this mechanism of injury in the literature.—I am, etc.,

PETER SYKES.

Royal Infirmary,
Manchester.

Influenza Vaccination

SIR,—For the past ten years or so we have vaccinated council staff against influenza in the autumn. It has not been possible accurately to assess the value of the procedure, but last winter's figures are of some interest though the number are small.

Difficulties arose in obtaining vaccine against the Hong Kong strain in the autumn of 1968, and a monovalent vaccine did not arrive until January 1969. As the expected epidemic had not yet materialized it was decided to vaccinate those who were willing. In the autumn of 1969 vaccination again was offered with a bivalent vaccine. In the first 25 vaccinated persons there was an unduly high proportion complaining of minor side effects, and the dose for the remaining 87 was reduced from 1 ml. to 0.5-0.75 ml., and no further trouble was experienced.

During the period 16 December 1969 to 27 January 1970 an outbreak of influenza occurred as part of the national epidemic with a peak locally in early January, when