eral practitioners working in consultant hospitals. The obscurity of the question and the context in which it appeared (vaguely suggesting a plan for general practitioners to invade consultant wards and take over "total clinical control") made it impossible to know what it was meant to discover. Certainly, this report did not produce any reliable evidence on the views of general practitioners about inpatient facilities in general-practitioner hospitals.

A survey of medical and surgical inpatients was carried out this year in the Radcliffe Infirmary, Oxford. The survey was concerned with general practitioner care as a possible alternative to consultant care for inpatients. The report of this survey will be published in the autumn. The main finding was that one third of the patients in the acute wards of a very busy teaching hospital could be under general practitioner care for all or part of their stay in hospital. The saving in consultant bed-days would also be a third. This report² will also contain ample evidence that a majority of general practitioners would like to have access to hospital beds in general practitioner units. The latter phrase includes general practitioner hospitals and general practitioner wards attached to consultant hospitals.—I am, etc.,

I. S. L. LOUDON.

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SIR,—“Chairman: Could we come to obstetrics—with the g.p. units and wards under specialist control there’s a fairly close parallel to what we’re talking about.”

“Admin.: Let’s look at the evidence of the care in these units. The perinatal morbidity or mortality is relatively high for the type of patient they should be admitting...”

“Admin.: The trend in obstetrics—and the B.M.A. report confirms this—is that mothers should be admitted to consultant units, and the role of the g.p. is in antenatal and postnatal care—and not the critical period of delivery. If the g.p. has sufficient expertise and experience he could work within the unit.”

These quotations are from Contemporary Themes (8 August, p. 335). If the last line had read “he should work within the unit” instead of “he could work within the unit” a fairer assessment would have been given of the role of the general practitioner in obstetrics. There are many consultant obstetricians, and I am one, who believe that 70% of the obstetrics in England and Wales could be supervised by general practitioner obstetricians working as adequately trained and responsible members of the obstetric team. “Admin.” refers to the high perinatal morbidity and mortality which may exist in some areas but certainly does not in others. In 1969 the general practitioners responsible for three units attached to this division delivered 993 mothers with no stillbirths, and no neonatal deaths. Moreover in the past five years they have delivered 4,254 mothers with a perinatal mortality of 3.5/1,000.

Honour should be given where it is deserved, and the general-practitioner

obstetricians of this region have played a major part in achieving a national record low figure of 16.3 for perinatal mortality and the lowest maternal mortality in the country for many of the years since the present *Enquiry into Maternal Deaths* began in 1952.—I am, etc.,

J. STALLWORTHY.

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SIR,—My first reaction of astonishment that anything so inept as your Middle Article (8 August, p. 335) should have been published was soon replaced by one of great relief that in fact it had. If this conversation in any way represents those that have been taking place behind closed doors then the time is more than ripe for proper discussion in public places.

The physician, while acclaiming “cottage” hospitals initially, was later challenging the ability of the general practitioner to select cases. If the general practitioner does not do the selecting who shall? Has this physician any true understanding of day-to-day life in general practice? The regional board medical officer believes that “on general principles” the idea that general practitioners should have beds is wrong (who formulated these principles?) and that the hospital is not the place for social admissions (where then shall they go?). Let this medical officer leave his desk and actually visit the general practitioner hospitals in his region and his mind, unless atrophied beyond reprieve, will soon discover the truths of real life. The only comment I will make here on the general practitioner’s performance is that he tried hard in trying circumstances.

But why, Sir, now that this subject is at last being actively discussed, the anonymity of the speakers? Why was it “necessary” (your term) for these gentlemen to use pseudonyms to enable them to speak frankly? Clearly there were no ethical objections to their names being divulged, so one is forced to think that the reason must be some sort of fear. If so, of whom are they afraid? A strange and sad state must have been reached if those who give strong opinions on important subjects have to hide behind screens when talking.—I am, etc.,

MEYRICK EMRYS-ROBERTS.

Walton-on-Thames, Surrey.

SIR,—It is a pity that the stimulating discussion between the three doctors in the article “Has The G.P. a Place in The Hospital?” (8 August, p. 335), should have been marred by the omission of the cardinal argument in favour of his place there. Both the physician and the G.P. argued on the same ground, that of good physical care, which is the ground on which we have all leaned. As the complexity of medicine becomes more marked, so specialization becomes more necessary, and a man who decides to specialize does so because the complexities of that specialty fulfil his intellectual needs, and he hopes, in the long run, his financial needs. The study of each specialty fills all his working and much of

his spare time. The mastery of these complexities entitles him to a consultant position.

Because his time is fully occupied, he does not have time to become a master outside his own specialty, unless he be very exceptionally gifted. In the past 100 years diseases have been studied, and their causes elucidated. It is only recently that the reaction of people to disease is being elucidated, and this can only be done in an environment in which the home is the centre. Here, by courtesy of our patients, the general practitioner comes into his own, and knowledge is being gained which will enable doctors of future generations, both working in and out of hospital, to deal more effectively with the emotional reactions of their patients to disease. The general practitioner is not only a primary physician, he is a continuing physician, a family physician, and should be the terminal physician. It is in these fields that the general practitioner’s “specialty” lies, and which by the complexity of his subject, the hospital specialist does not have time to study. It is because of the fascination of this work that general practice, without hospital beds, is satisfying. As the general practitioner, quite rightly, can learn from the specialist, so can the specialist, however eminent he may be, learn from the general practitioner some of the things outlined above. The more eminent he is, perhaps the more willing he is to recognize this.

At the moment, the domiciliary consultation is perhaps the most effective weapon in continuous education on both sides that we have. If the general practitioner were able to maintain his continuous care in hospital then similar contact between general practitioner and consultant would be extended limitlessly to the advantage of all, not least the patient immediately concerned.

The young physician, on leaving hospital for general practice, has to learn the hard fact that he is not as expert as his colleagues in the specialties, in physical diagnosis, and management of physical disease. It behoves also those who stay in the specialties to learn that they cannot become as expert as their colleagues who choose general practice in the emotional reactions of people to the disease. And from the patients’ point of view these cannot be separated. As a general practitioner I can treat effectively the less complex physical disease and the more complex emotional and family reaction. A specialist, even a consultant specialist, can treat effectively the more complex physical disease, and the less complex emotional reaction, but not the more complex one. Many patients need two doctors.

Finally, is it not a pity that in such a profession as ours even the Editor of the *B.M.J.* agrees that such an important subject must be discussed under pseudonyms—and what pseudonyms!—I am, etc.,

JOHN W. BAKER.

Tonbridge, Kent.

Paraquat Toxicity

SIR,—This month has seen the death, in his 87th year, of the legendary biochemist and Nobel prize-winner, Otto Warburg (see *B.M.J.* 15 August, p. 409). It is probably

fair to say that while the majority of plant biochemists are not prepared to accept his singularly personal view of photosynthesis they have hesitated, because of his undoubted eminence, to dismiss it entirely. While we ourselves are not qualified to comment, we suspect that his theory concerning the origin of cancer cells¹ might promote an entirely similar reaction. Nevertheless we feel compelled to draw attention to a chemically induced condition which appears to be remarkably consistent with his proposals. We refer to the increasing number of reports^{2,3} on the toxic effects of methyl viologen and related bipyridyls such as the weed killers Diquat and Paraquat. It is now well established that poisoning by these agents is characterized by a proliferation of the epithelium of the lung.^{4,5}

Methyl viologen can accept electrons from reduced coenzymes and carriers of appropriate redox potential and then undergo rapid reoxidation at the expense of molecular oxygen which is in turn reduced to hydrogen peroxide. In the absence of sufficient catalase, accumulation of peroxide will itself be damaging, but the point that we wish to emphasize is that near anaerobiosis is also easily established. Thus in some oxygen-producing photosynthetic systems the addition of methyl viologen is rapidly followed by a fall in oxygen to a concentration at which it can no longer be readily detected by polarographic measurement. Therefore, even in a well-aerated oxygen-consuming system, such as lung epithelium, methyl viologen (because of its rapid autoxidation and affinity for oxygen) might also be expected to promote near anaerobic conditions within the cells. Oxygen diffusing into the cells would then be consumed as long as the methyl viologen continued to undergo cyclic reduction and reoxidation. External administration of oxygen would facilitate this process. The effect of cycling would be to promote reoxidation of reduced coenzymes⁶ in such a way that the normal processes in which energy is conserved as ATP would be by-passed. As we understand it, this is also the crux of Warburg's theory of carcinogenesis.

It may be that this striking parallel (between Warburg's proposals and this chemically induced proliferation of a well-aerated tissue) is entirely fortuitous, but at least it would appear to merit further investigation.—We are, etc.,

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Sleeping Pills

SIR,—Your leading article (8 August, p. 296) ends: "... it has become increasingly clear that good clinical practice requires every doctor to undertake a searching

review of his prescribing of hypnotic drugs."

In my view we have been soft-peddalling this aspect of prescribing long enough. I therefore propose to stick my neck out with the following pronouncements.

Dependence on sleeping pills is a condition created and maintained by doctors.

There is no condition known to medicine for which the sole treatment is a sleeping tablet every night for an indefinite period.

Any doctor prescribing sleeping tablets in this way is giving unnecessary and possibly dangerous treatment—alternatively he is giving inadequate treatment.—I am, etc.,

A. LEWIS.

London W.9.

Heparin and Haemolytic-uraemic Syndrome

SIR,—Heparin therapy in the haemolytic-uraemic syndrome is of theoretical value by preventing fibrin deposition in the kidneys and other organs. Its efficacy in this condition is by no means proved, however, and its use after renal biopsy and/or in the presence of thrombocytopenia and bleeding may occasionally lead to problems greater than those caused by the disease itself. The suggestion of Drs. M. W. Moncrieff and E. F. Glasgow (25 July, p. 188), based on only three cases, that heparin was beneficial must be interpreted with some caution. In the three cases discussed evidence is lacking that heparin was of benefit in terms of patient survival or histological improvement, and indeed it may have contributed to the death of the first patient. It is probable that heparin must be given in the earliest stages of the disease to be of benefit, and when administered after afferent arteriolar thrombosis has occurred may have little or no therapeutic effect. It is also of interest that two patients in the series of Clarkson *et al.*¹ and 14 out of 22 in the series of Gilchrist *et al.*² recovered without heparin therapy.

In a small series of six adult patients recently studied in Edinburgh evidence has been accumulated that in vivo platelet aggregation and impaired fibrinolysis may play a significant role in the natural history of this condition. Heparin is unlikely to interfere with these factors.

The evaluation of heparin therapy in the haemolytic-uraemic syndrome must therefore depend on further knowledge of the type of coagulation abnormality involved and better understanding of its aetiology. It seems possible that in some patients drugs directed at suppressing tissue damage or platelet aggregation may be more appropriate, whereas in others some form of thrombolytic therapy would be indicated.—We are, etc.,

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Examination of the Prostate

SIR,—Your leading article on prostatic syncope (11 July, p. 61) led to my reconsideration of the orthodox positions of the patient during prostatic palpation. A search of the literature revealed many references to the dorsal, the kneeling, and the standing-leaning-forward positions, and to the *left* lateral position. To my surprise I was hard pressed to discover a mention of the *right* lateral position, which I prefer.

The positions of the patient in which prostatic palpation is most easily, satisfactorily, and comfortably done are kneeling or standing-leaning forward. If for any reason these positions cannot be used, then the position of preference is the *right* lateral position. I find it hard to believe that the *right* lateral position is not widely used, but if it is then it has passed without remark.

A brief consideration will show that in the kneeling and standing-leaning-forward positions the curve and the pulp end of the examining finger fall naturally to face the prostate. So too in the dorsal position, in which bimanual examination is easiest. However, in the *left* lateral position the opposite is the case for a right-handed examiner; inserted naturally here the extensor convexity of the finger and the finger nail face the prostate. In this circumstance it is necessary to rotate the examining finger, hand, and forearm anticlockwise through 180 degrees, so as to bring the flexor (and flexible) concavity of the finger and its pulp to face and explore the prostate and adjacent structures. This is an awkward manoeuvre which is for the examiner both uncomfortable and inefficient as it is not easy to move the examining finger freely and to appreciate well what it is feeling. In this position there is a tendency for the examiner to move round the end of the couch and to go to some part of the way to standing on his head.

All these disadvantages are avoided if the patient, after emptying his bladder, lies on his right side with his knees tucked up towards his chest, his head to the right handed examiner's left. In this right lateral position palpation of the prostate is comfortable, easy, and effectual.—I am, etc.,

NEVIL H. SILVERTON.

Leeds 17.

Laboratory Diagnosis of Rubella

SIR,—In your excellent leading article (1 August, p. 237) on the subject of rubella diagnosis there is an assertion that centrifugation is the method of choice in identifying IgM specific for rubella virus. This may deter many clinical virologists from undertaking early diagnosis of this disease during pregnancy. Moreover, I disagree with it.

Experience during the past two years has taught us in this department that assay of specific antibody fractions by immunofluorescence is an accurate and convenient clinical method. Indeed, you have already published some data from Belfast on such antibody levels in uncomplicated and complicated rubella (18 July, p. 130) though full records of the diagnostic value