implications of any pressure by doctors that might delay the implementation of a comprehensive free family planning service in this country.—We are, etc.,

GEORGE PICKERING
President

JOHN A. LORRAINE
Chairman,
Management Committee

CAROLINE DEYS
DENYS V. I. FAIRWEATHER
C. M. FLETCHER
PETER J. HUNTINGFORD
J. P. LESTER
GEORGE MORRIS

DAVID E. ROBERTSON
MICHAEL SMITH
TOM STUTTAFOED
TAYLOR
BARBARA TONGE
DAVID P. WINSTANLEY

Doctors and Overpopulation Group

143 Cranley Gardens,
London N.10

¹ Birth Control Campaign, *The Benefits of Birth Control—Aberdeen's Experience 1946-1970*. London, B.C.C., 1973.

Multiplicity of Tests

SIR,—Drs. A. V. Hoffbrand and A. Lavoie are to be complimented on their paper "Megaloblastic Anaemia" (8 June, p. 550) for its lucidity, conciseness, and comprehensiveness. It illustrates the best in modern medicine, and also the worst.

I would cavil with them on one point: they state that in order to make a diagnosis of megaloblastic anaemia it is necessary to carry out 14 tests and, to distinguish between vitamin B₁₂ and folate deficiency, another four. It is the 14 tests that I query. It may be that with some of the patients a diagnosis cannot be established until all these investigations have been completed, but I find it difficult to believe that most patients require more than a very few tests.

It seems to me that the authors are somewhat confused about differences between research and clinical practice. In the former the information collected about each patient is that which is relevant to the research as a whole; in clinical practice the information collected is that which is relevant to the patient.

Much research has been done which demonstrates that in various fields—for example, thyroid disease—the many tests available are unnecessary in a majority of cases since the additional information provided by more than a few tests is very small. This point is ignored in the teaching to medical undergraduates so that the present generation of physicians cheerfully orders innumerable tests which ultimately have no function other than to satisfy idle curiosity or to spend other people's money. The consequence of this is that when medical graduates leave research centres or go into general practice their inability to order innumerable tests makes them feel that they are not practising real medicine and this is one of the factors which leads to the lack of morale in the profession.

I am not suggesting that we should go back to the days of Addison, but I do think that in a definitive paper such as this the need for tests should be given full justification.—I am, etc.,

MAX HAMILTON

Department of Psychiatry,
University of Leeds

Medical Reconnaissance Service

SIR,—I refer to the article by Drs. R. J. F. H. Pinsent and J. B. Peacock (13 July, p. 129). If we wish to retain family doctoring the doctors must accept responsibility for providing

a 24-hour service to their patients, and while there will always be some unnecessary calls and some people unduly demanding of the service, it may be that better public education is what is required if these are in a majority. I am particularly concerned at the suggestion in this article that a state registered nurse should be used to provide a medical reconnaissance service. Diagnosis is a medical responsibility and the comparison with the hospital situation is invalid since the patients in hospital are already under medical direction for the complaints for which they were admitted and presumably were fully examined on admission.

In the nursing profession we too are suffering a severe manpower shortage. It is becoming increasingly difficult to provide an adequate nursing service and it is very doubtful whether nursing duties should be extended to relieve the doctors of medical duties while we are still unable to meet the nursing needs of our patients in the community. In some places a night visiting nursing service is in operation and there is no doubt that it would be desirable to extend this to many more areas. Patients already under the care of the district nursing sisters are referred to the night sisters so that 24-hour nursing surveillance can be given to very ill patients and necessary treatments carried out. When a doctor is required for one of these patients the night sister would normally first be contacted and would call him as in hospital, but we would not expect the night nurse to deal with primary calls. I am amazed at the suggestion that a second person could be used as driver/operator. This would seem to me to be a quite unnecessary waste of manpower and money. In planning the health services within the districts it is important for all health needs to be discussed on an interdisciplinary basis. It is depressing that some doctors still see the main nursing contribution to be one of saving doctors' time.—I am, etc.,

M. E. LINDARS

Area Nursing Officer,
Buckinghamshire Area Health Authority

Stone,
Aylesbury, Bucks

Tests of Hearing in School

SIR,—Your leading article on this subject (6 July, p. 3) draws attention to the usefulness of impedance audiometry and the known disadvantages of the more traditional sweep testing methods. While I agree that impedance audiometry is a most useful additional means of highlighting or confirming middle and inner ear pathology, I would respectfully point out that it does not screen hearing ability, except where the make of the instrument allows such a monaural screen at one frequency and one intensity level.

Ferrer's paper,¹ while indicating the percentage of children with abnormal middle ear pressures who pass a sweep hearing test, also indicates that 20% of children who had failed a sweep hearing test had apparently normal middle ear pressures. Were sweep hearing tests to be carried out as an isolated exercise I would agree that cases of eustachian incompetence or even possibly serous otitis media might be missed. The clinical signs of both these conditions are well described in the literature and provided

the mobility of the tympanic membrane is tested by insufflation most school medical officers at the first medical examination should be able to identify them, whether the employing authority is a local authority, as in the past, or the area health authority, as at present.

I hope that we will not lose sight of the twofold purpose of the sweep hearing test. It firstly identifies children who because of impaired hearing may suffer educationally. It places them in an "educationally at risk" category and such information is very important for both school teacher and medical officer. It also focuses the M.O.'s attention on the health of the external and middle ears and triggers off a series of full audiometric and clinical examinations. Admittedly some 55-58% of children who pass their sweep test may have abnormal middle ear pressures at the time of testing, but is this as crucial educationally or even prognostically as a proved drop in hearing threshold? The long-term effects of eustachian incompetence (often fluctuating) are relatively unknown; the long-term effects of even a minor fluctuating hearing loss are well documented and most authors agree that "glue ear" is more often than not discovered because of a failed sweep test and subsequent follow-up.

A valid criticism of both sweep testing and impedance testing relates to the time the tests are carried out. These measures represent only a clinical situation at a specific point in time; later tests may produce a different picture. This objection is partly met when a team of doctors, nurses, teachers, and audiometricians trained in the identification of children with hearing impairment rely upon each other's observations to ensure that no hearing-impaired children will be missed. Tho these workers sweep hearing test results are globally more acceptable as an observation than the relatively clinical nature of impedance audiometry.

We are fortunate in having an impedance audiometer in our Exeter children's audiology clinic and I have no doubt about its value and usefulness. I would, however, criticize its use as a screening technique because despite its advantages much more useful and educationally relevant information is produced when hearing is screened.—I am, etc.,

C. P. HALLETT

Senior Medical Officer (Audiology)

Exeter Health Care District,
(Devon A.H.A.),
Exeter

¹ Ferrer, H. P., *Public Health*, 1974, **88**, 153.

Diabetic Ketoacidosis Presenting as Neurosurgical Emergencies

SIR,—We read with interest the papers by Dr. J. M. Anderson and Mr. R. S. Maurice-Williams (6 July, pp. 22 and 24). In the first paper Dr. Anderson describes three cases of diabetic ketoacidosis presenting with focal neurological signs mimicking neurosurgical conditions. We have recently reported¹ six cases of fatal diabetic ketoacidotic coma in which there was conclusive histological evidence of focal ischaemic lesions due to small-vessel occlusion by fibrin which in our opinion accounted for the abnormal neurological state of the patients. We believe that the symptoms in all three cases described by Dr. Anderson can be explained on this

basis. Platelet counts are not included in the reported data and in our experience this investigation is a useful index of intravascular coagulation. In the two cases in our own series in which we suspected the syndrome clinically before death there was a profound drop in the platelet count and this was associated with an elevated level of serum fibrin degradation products and evidence of defective fibrinolysis.

Dr. Anderson discusses various explanations for his findings, including dehydration, cerebral anoxia, and acidosis of the cerebrospinal fluid. He implies that metabolic factors are probably more important than infarction or haemorrhage as the latter are not evident. It is clear from our own studies that this is not the case and that multiple ischaemic lesions are seen in the brain which are not always easily recognized macroscopically. Recovery from the abnormal neurological state is explicable on the basis of removal of the intravascular fibrin by fibrinolysis.

Dr. Anderson's first patient had a history of head injury just before admission and in Mr. Maurice-Williams's paper a patient is described with a history of mild head injury followed by progressive neurological deterioration and death. We have previously drawn attention² to the dangers of intravascular coagulation occurring as a complication of head injury. The vascular thromboses are not confined to the larger vessels and microscopical examination will often reveal thrombi within the microvasculature of the brain and other organs.

We wish to reiterate that involvement of the brain by intravascular coagulation is now known to complicate a variety of clinicopathological states; it is important that it should be recognized as treatment should include measures to combat it.—We are, etc.,

F. E. PRESTON
W. R. TIMPERLEY
J. D. WARD

Departments of Haematology, Neuropathology
and Medicine,
Royal Infirmary,
Sheffield

¹ Timperley, W. R., Preston, F. E., and Ward, J. D., *Lancet*, 1974, i, 952.

² Preston, F. E., *Journal of Neurology, Neurosurgery and Psychiatry*, 1974, 37, 241.

Drugs for Gastric Ulceration

SIR,—I write again in defence of your excellent leading article on this subject (27 April, p. 186).

May I ask your correspondent Dr. S. M. M. Karim (20 July, p. 169) to reread your article? He will then find that the "carefully conducted Scandinavian trial which showed no demonstrable effect" refers to deglycyrrhizinized liquorice (Caved-S) and not to carbenoxolone as he has stated in his letter. This may have misled some of your readers who were not already familiar with this excellent study by Engqvist *et al.*¹ This inaccurate quotation undermines confidence in some of his other references which are not yet available for verification.—I am, etc.,

F. AVERY JONES

Central Middlesex Hospital,
London N.W.10

¹ Engqvist, A., von Feilitzen, F., Pyk, E., and Reichard, H., *Gut*, 1973, 14, 711.

Oral Contraceptives and Health

SIR,—I am grateful for Dr. Ellen C. G. Grant's letter (13 July, p. 115) because she reveals a misunderstanding about loss rates which may be widespread among workers who are accustomed to prospective evaluation of contraceptives in clinic subjects. The situation in a general practice study is entirely different. Here all but a tiny proportion of the losses are due to the patient moving out of the district and registering with a new doctor. There is no reason to believe that this event is likely to be associated with the onset of an illness or the decision to stop the pill. In the Royal College of General Practitioners study¹ it was concluded that the loss of subjects, though substantial, was unlikely to have resulted in any material bias (chap. 3).

I do not know how Dr. Grant has determined that "only" 4,711 women were still taking the pill at the time of the analyses. In fact the correct number, in round figures, was 9,000. Here again, Dr. Grant's implication that the high proportion of women who stopped the pill invalidates the study must be based on her clinic experience. These women remained under observation as extanters.

The College's study is not "blind." Doctors and patients both know whether or not the pill is being used. In these circumstances biased reporting must be expected. In chapter 3 we give extensive and detailed consideration to the effect of this bias and show that it leads almost exclusively to over-reporting in takers. The average bias in all categories of illness is estimated to lead to a 19% excess reporting in takers. In some morbidity categories there are good reasons for believing that the bias is very small and in others we must expect it to be much above average. Depression is particularly likely to be subject to above-average biased reporting, since it is common, subjective, and frequently never reported to doctors. In these circumstances it came as a surprise to find that the excess reports in takers were as little as 30%. We were unable to show a relationship in pill users to the progestogen or oestrogen content of the pill, or to the duration of use. In these circumstances we concluded that "there is approximately a 30% maximum increase in pill users as compared with the controls. . . . However, a substantial bias is likely to be present, and a pharmacological influence of the pill may be much less than these observed differences."

Dr. Grant has misinterpreted the results of the statistical test. The test can indicate that an observed difference is unlikely to be due to chance. It gives no guide as to the likelihood of the difference being due to bias, since bias is not a chance phenomenon. It is presumably because of this misunderstanding that Dr. Grant suggests that we have found that the pill adversely affects 60 conditions, whereas we list only 25 morbidity categories on which we believe the pill has a possible adverse effect and several of these are likely to be subject to substantial biased reporting (fig. 13-1). In any case it is meaningless simply to count categories without taking into consideration the severity of the conditions and the excess incidence in pill users attributable to oral contraceptives. It is remarkable that Dr. Grant should be so concerned about the bias due to loss of subjects, which is trivial, and ignores completely

the very important influence of biased reporting.

Whenever a doctor prescribes the pill, and whenever a woman uses it, both parties are accepting that the advantages of oral contraceptives outweigh the risks. If a doctor does not believe this he has no right to prescribe the pill. Our report is based on the observation of 35,000 woman-years of pill usage and monitors the whole range of reported morbidity. It is the most comprehensive report on the effects of the pill yet published. While it confirms most of the previously reported adverse effects of the pill, it shows that some of these are of less importance than was previously supposed. It also shows that it has some beneficial effect on health. It provides very reassuring data on the outcome of pregnancy in previous oral contraceptive users and on subsequent fertility. Putting all this evidence into perspective the report must be interpreted as confirming the long-held view that the advantages of pill usage outweigh the disadvantages. This must, however, be subject to the proviso that "longer observation might reveal other untoward effects." I believe that the press very accurately reported these implications, though I must agree that some of the headlines were less objective than I would have wished. Nowhere does the report suggest that the pill is better than other contraceptives, and it is my personal belief that couples must be offered a range from which they can choose the method most acceptable to them. Nor does the report imply that doctors need now be less alert about the possibility of adverse effects amongst pill users.—I am, etc.,

CLIFFORD KAY

Recorder,

R.C.G.P. Oral Contraceptives Study

Manchester

¹ Royal College of General Practitioners, *Oral Contraceptives and Health*. London, Pitman Medical, 1974.

Conversations on the Social Services

SIR,—I feel sympathy for Mary S and her colleagues (6 July, p. 36) and, as a general practitioner, I feel guilty. However, I think there is a tendency for social workers to wring the last ounce of pathos out of dismal social situations and to discuss at length cases where neither they nor anyone else can suggest a remedy. Practical care tends to take second place to talk and correspondence.

What does Mary S say to this?—I am, etc.,

DENIS GLYN

London S.W.15

SIR,—My interested reading of this series has provoked the remarks enshrined in this letter and I hope these will stimulate further discussion on this most topical and important subject. I suggest that the eternal problem of communications or their lack is fundamental to the vexed question of relations between the old profession of medicine and the relatively new one of social services.

Having learnt from the advantages derived from the attachment of nurses and health visitors to general practitioners, we in the medical field tend to advocate a similar procedure aimed towards the improvement of relationships. I suggest that a study of the psychology of the situation demands a