taking a decision as uncongenial to him as it is to her. To quote from Michael Foot's *Aneurin Bevan, 1945-1960*,[1] "He agreed that specialists would encourage the establishment paying patients in hospitals. The risk was obvious, but the representatives of the Royal Colleges of Physicians and Surgeons had told him that without this concession some specialist would encourage the establishment of private nursing homes. To get the specialists into the hospitals and to keep them there as regularly as possible was crucial to the whole enterprise. He bowed to the necessity before he had ever opened consultations with the B.M.A."

The minority of patients who would like to pay for privacy and a specialist of their choice in *their* hospitals, which as taxpayers they provide and maintain, have, I submit, the right to demand that this should not be denied them. When Mrs. Castle had a bed in the private wing of University College Hospital she, as a Minister of the Crown, simply had to have a room of her own with a telephone so that she could continue to conduct essential business. To call this queue-jumping is to ignore the fact that the time and services of some people are far more important to the community than the time and services of most of us.

No one would want the Prime Minister and his ministerial colleagues, and their counterparts in the opposition, to add their names to a long waiting list or to be obliged to go into nursing homes likely to be less well equipped than a modern N.H.S. hospital. When it comes to general practitioner treatment I expect our governors have to have private practitioners. When Mr. Harold Wilson had his recent indisposition after a visit to Paris no one would have expected him to sit in the waiting-room of a health centre or to be told that his doctor could not visit him for two or three days. And if he needed hospital treatment he would, for security reasons alone, have had to have a private room, preferably in a well-equipped modern hospital.

And then there are many other persons whose time and services are more valuable to the community than those of the ordinary man in the street. They need privacy to conduct their business as leaders of industry and managers of public enterprises. Though as a medical man I might expect extra consideration from my old teaching hospital if ill, I preferred to subscribe for years to a medical provident scheme. This enabled me to pay the surgeon of my choice for severe operations on my wife in the private wing of his hospital. I think it is unwise—politically unwise—of Mrs. Castle to deny this to others who take this prudent precaution—deny to them the facilities she took advantage of when in need of expert care herself. To quote from your excellent leading article (4 January, p. 4), "Is she really so indifferent to the welfare of British medicine?"

May I end, Sir, by suggesting that it is time we stopped describing a *medical* service as a *health* service. And let us at the same time restore to some of its old dignity what was a fine health service, called the Public Health Service.—I am, etc.,

HUGH CLEGG

London N.W.3

[1] Foot, M., *Aneurin Bevan, 1945-60*. London, Davis-Poynter, 1973.

G.P.s and the Crisis

SIR,—Surely now, if ever, the moment of truth for the medical profession is arrived, and I for one wish to express my support for our consultant colleagues in the action they are taking. I much regret that such action has been left to a small and perhaps vulnerable section of the profession and, while firmly supporting the B.M.A. in this matter, feel that a united front might have been more appropriate. It is scarcely possible to doubt that the turn of general practitioners will come.

The medical profession, by and large a dedicated body of men and women with a sense of vocation, have in the majority slaved over the past 26 years to make the Health Service a success. Their reward for this effort has been repeated obstructive interference with their professional rights and a salary scale that has made them the objects of pity and incredulity by other medical professions in the free world.

As much as anything we are fighting for self-determination and the freedom to treat our patients in the way we think fit, either within the Health Service or without it. We must brook no more interference, no more meddling, no more political intrigue, and must demand that a totally non-political corporation should be set up, similar to the B.B.C., to run the service.—I am, etc.,

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SIR,—The hospital consultants are showing action; so must we general practitioners. There is only one way: resign. This does not mean go on strike. Of course we shall still attend to all patients, but a fee will be charged. Prescriptions will not be written on EC10s; therefore the patient will have to pay for the prescription at the chemist. It will take only a week or two for the public to inform the Government of their displeasure. We shall then receive our just increase in income to maintain our standard of living. We must not wait until April; it will then be too late.

The B.M.A. must send to all general practitioners a referendum asking if we are willing to resign, with no other alternative. I am sure that the positive response will be great.—I am, etc.,

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Well-woman Clinics

SIR,—It is distressing that the cost effectiveness and priorities of patient care need to be evaluated as a medical compromise in our underfunded Health Service. But if this is to be we must support the challenge of Mr. R. T. Burkitt (7 December, p. 588) in questioning the value of well-woman clinics for young patients. However, not wishing to appear to be the Luddites of preventive medicine, we would urge the creation of menopause clinics within the N.H.S. as an alternative. Apart from the growing evidence that the climacteric is an insidious deficiency state requiring oestrogen therapy in order to protect the skeleton and general well-being, this selection of the female population offers a greater source of early and treatable disease.

The first 200 patients attending the two menopause clinics in our hospitals have yielded four positive cervical smears (two carcinoma in situ), three breast lumps (one early carcinoma), and one each of endometrial carcinoma, melanoma, diabetes mellitus, hypertension, and hypercalcaemia.

The postmenopausal population is clearly a high-risk group. It is also our belief that women can more readily be lured into well-woman clinics by their distressing vasomotor symptoms, their diminished sexual responsiveness, and their hopes, however misplaced, of "feminine forever" than by a primary concern about the presence of early disease.—We are, etc.,

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Haemophilus influenzae in the Elderly

SIR,—A leading article (1 June, p. 462) recently pointed to the increase in the prevalence of infections with *Haemophilus influenzae* in the past three or four decades. Dr. Susannah J. Eykyn and others in the same issue (p. 463) described an apparently new trend towards meningitic infection with this organism in adults, but in your articles and in the available literature it is emphasized that the main importance of *H. influenzae* is in infections of infancy and childhood. In my experience, however, the organism is already a significant cause of morbidity, and occasionally mortality, in the elderly population.

In a consecutive series of 42 patients admitted to a geriatric assessment unit nasal swabs, throat swabs, and specimens of sputum were cultured. *H. influenzae* was identified from the sputum as the causative organism from four patients, all male, who had clinical evidence of chest infection and from the sputum of two women who were asymptomatic. Two of the men and one of the women had *H. influenzae* in their sputum on admission to hospital; both the men died of bronchopneumonia, in spite of treatment with apparently appropriate antibiotics, within a month of admission. The rest of the positive sputum cultures presumably resulted from cross-infection in the hospital wards within one week of admission of the patients, who were initially free from chest infection.

In all six patients *H. influenzae* was shown in the laboratory to be sensitive to ampicillin, tetracycline, and co-trimoxazole. Resistance to cephaloridine was noted in several specimens from one of the patients who died. Though resistance to other drugs was not encountered in laboratory tests, *H. influenzae* proved to be much more difficult to eradicate clinically than its theoretical sensitivity suggested. The prognosis was clearly worst for those patients infected with the organism before admission, but the introduction of *H. influenzae* into a geriatric unit provided a significant and continuing morbidity among

patients susceptible to, but not initially complaining of, a chest infection.—I am, etc.,

P. L. ZACHARIAS

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Keratoconjunctivitis Caused by Adenovirus Type 19

SIR,—We were interested in the cases of adenovirus type 19 keratoconjunctivitis reported from Belgium and Holland by Dr. J. Desmyter and others (16 November, p. 406). Though a few strains of this virus have been isolated elsewhere in Britain during 1973-4, it was not until July 1974 that it was first detected in Scotland. The patient, a male anaesthetist aged 52 years, first developed photophobia and "gritty" discomfort of the right eye and five to six days later the left eye became affected. Ophthalmological examination confirmed the diagnosis of keratoconjunctivitis with deep scleral inflammation. A conjunctival swab was submitted for virological examination and meanwhile treatment with chloramphenicol was instituted, with no effect. Though the episode lasted one month, the patient continued his normal duties throughout. An adenovirus, subsequently identified as type 19, was isolated in human amnion cell cultures.

This appeared to be an isolated incident. There was no relevant history of recent travel abroad or contact with a similar case. However, this does raise the question whether anaesthetists may be at special risk from their proximity to the face and oronasal secretions of their patients.—We are, etc.,

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Forecasting Subarachnoid Haemorrhage

SIR,—In your leading article (5 October, p. 6) you stress the importance of premonitory symptoms of subarachnoid haemorrhage and advise certain procedures to be performed in order to achieve early diagnosis and treatment of patients threatened by fatal intracranial bleeding from aneurysms.

In this connexion we want to draw attention to early sequential scintigraphy of the brain in patients suspected of cerebral arteriovenous malformation as a method of investigation which is free from complications, without inconvenience to the patient, and easy to perform, thus being well suited as a screening method also in outpatients. By this investigation a sequential visualization of an intravenously injected bolus of ^{99m}Tc-pertechnetate is obtained in its initial intracranial distribution. We have described a characteristic "starfish" configuration visualizing the pathological process in cerebral arteriovenous malformations when this technique is applied.[1]

Sedzimir and Robinson[2] found that arteriovenous malformations were the underlying pathological lesion in spontaneous subarachnoid haemorrhage in 26·6% of patients in the age group 0-20 years and in 9·3% of all ages in a series of 1847 patients.

In order to forestall haemorrhage from intracranial arteriovenous malformations we recommend the observation of the initial symptoms of such lesions—epileptic seizures which have or have had focal traits or when focal cerebral signs are present; always unilateral, ipsilateral migrainous headache with or without sensory or motor symptoms; and epilepsy in combination with headache. In such cases early sequential scintigraphy should be of value as a preliminary investigation, though angiography should also be applied for confirmation or exclusion, even if the scintigraphic study is negative, as the experience with small arteriovenous malformations is as yet too limited. It is probable that some large saccular aneurysms may also be visualized by early sequential scintigraphy, but so far we have had no experience with such lesions.—We are, etc.,

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1 Buhl, M., *et al.* To be published.
2 Sedzimir, C. B., and Robinson, J., *Journal of Neurosurgery*, 1973, **38**, 269.

Effective Dosage of Tricyclic Antidepressants

SIR,—It is generally agreed that a standard dose of a tricyclic antidepressant will produce a larger than 15-fold variation in steady-state plasma levels in different subjects. The steady-state nortriptyline concentration is influenced by genetically determined factors and differing rates of metabolism and is also affected by the interaction of barbiturates and certain other drugs.[1]

This enormous variability of steady-state plasma levels on standard dosage poses the question of the relationship of plasma level to therapeutic effect. Most studies have concentrated on nortriptyline.[2-4] With this drug there is a consensus which supports the view that both too high and too low levels are associated with a poor clinical outcome. Though in most patients given 150 mg of nortriptyline the plasma level will fall in the therapeutic range, the clinician without access to steady-state plasma levels will be unable to decide whether to raise or lower the dose. Kragh-Sørensen *et al.*[5] have shown in their very interesting prophylactic follow-up of endogenous depressives treated with nortriptyline that relapse occurred only in those patients with serum levels outside the therapeutic range.

Our knowledge of other tricyclic antidepressants is very sparse. For example, there has been only one systematic study on the most commonly used tricyclic antidepressant, amitriptyline.[6] This reported a high positive correlation between plasma steady-state concentration and therapeutic outcome. It also indicated that the standard dose of amitriptyline (150 mg daily) was probably insufficient in half of the patients. Results like these suggest that we urgently need further investigations on these commonly used drugs in both acute and long-term therapy. These studies must provide systematic measures of the severity of the illness and use clearly defined diagnostic and descriptive criteria for the patient population studied. The drug under investigation must, of course, be accurately measured and differences that arise between different laboratories explored. It is probable that some of the discrepancies reported in the literature are the result of lack of attention to these points.

The tricyclic antidepressant drugs are clearly a potent therapy for certain groups of depressive illness but it is also very evident that much work remains to be done to establish the effective dose for each particular drug for the individual patient and also the optimum time for the patient to be maintained on the medication after recovery.—We are, etc.,

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1 Åsberg, M., *Nortriptyline in the Treatment of Depression*, Karolinska Institute Monograph, 1973.
2 Åsberg, M., *et al.*, *British Medical Journal*, 1971, **3**, 331.
3 Burrows, G. D., Davies, B., and Scoggins, B. A., *Lancet*, 1972, **2**, 619.
4 Kragh-Sørensen, P., Åsberg, M., and Eggert-Hansen, C., *Lancet*, 1973, **1**, 113.
5 Kragh-Sørensen, P., *et al.*, *Psychological Medicine, Medicine*, 1974, **4**, 174.
6 Braithwaite, R. A., *et al.*, *Lancet*, 1972, **1**, 1297.

SIR,—Dr. G. D. Burrows and Professor B. M. Davies (30 November, p. 533) have given their reasons for questioning Professor M. D. Rawlins's assertion (12 October, p. 91) that the therapeutic activity of nortriptyline occurs *only* when the plasma concentration of the drug lies between 50 and 140 ng/ml [190 and 532 nmol/l]. There are other objections.

In the first place patients 15 and 28 of the series upon which Professor Rawlins's conclusion is apparently based[1] both did well though their plasma nortriptyline concentrations were 150 ng/ml [570 nmol/l] and 164 ng/ml [623 nmol/l] respectively. The mean plasma nortriptyline concentration of another group of patients from the same source[2] was 141 ng/ml [536 nmol/l], one patient only having a concentration less than 50 ng/ml and several doing well at levels between 140 ng/ml and 170 ng/ml [646 nmol/l]. Dr. Burrows and Professor Davies have patients who responded only to even higher concentrations of the drug. In yet another series[3] of 45 patients who had received various doses of nortriptyline plasma nortriptyline concentrations were log-normally distributed over the same range, both for those who had progressed satisfactorily and those who had not. About half of both groups fell within the 50-140-ng/ml band. It follows that adjustment of dose to bring any particular "failed" case from outside to within this band may well not be beneficial after all.

The several methods of assaying nortriptyline in blood all demand scarce resources of laboratory skill and time and if, as I believe to be the case, the information gained is of doubtful value as a guide to most individual patients' requirements, then clinicians would do better to proceed according to the clinical response than to resort to