liver biopsy did not "on the whole" warrant any more specific a diagnosis than chronic hepatitis, but that the patient with PMR had clinical and biochemical features more suggestive of primary biliary cirrhosis (PBC) than chronic aggressive hepatitis. We were anxious to give credit to the workers who first mentioned the coexistence of PMR with chronic hepatitis having features of PBC, particularly as only one of Sherlock's 100 cases of PBC had a rheumatological presentation and that was rheumatoid arthritis. Finally we wish to point out that our opening paragraph states that our cases had "features of PBC," and that we stated that we merely believed that the two conditions were not associated by chance.

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¹ Walker, J G, Doniach, D, and Doniach, I, *Quarterly Journal of Medicine*, 1970, **153**, 31.

Precordial exercise mapping

SIR,—I was interested to read the papers of Drs Andrew Selwyn and Kim Fox and their colleagues (9 December, pp 1594 and 1596) on the uses of precordial exercise mapping.

While I am glad to see the use of different electrocardiographic systems for the diagnosis of myocardial ischaemia, I feel the differences in the accuracy of such systems need careful investigation. For many years the relative merits of the orthogonal three-lead system and the 12-lead system in routine electrocardiographic analysis have been controversial. Many of these arguments have been due to individual preferences for one or other system. Vectorcardiographers have preferred the three-lead system and most British cardiologists have preferred to use 12 leads. Objective verification more recently has shown few differences. Sensitivity of the electrocardiogram can be improved slightly by combining measurements from the 12 leads and the orthogonal leads.¹ However, specificity is reduced somewhat. These results have been found to apply to exercise testing and even extensive precordial mapping has not improved sensitivity by more than about 5%.²

Dr Fox and his colleagues found a greater increase of sensitivity (27%) without loss of specificity. Different methods of exercise testing are important causes of variation in results, but differences in subsequent electrocardiographic analysis may also be important. The sample of patients examined was smaller than that of Kilpatrick³ and since it contained a minority of patients with normal coronary arteries specificity could never be less than 75%. It would be interesting to know the results of mapping in a wide variety of conditions, perhaps by computer analysis.

From the data on exercise testing it seems likely that the 10 patients in whom ambulatory monitoring showed only 14% of episodes of ST depression at V5 that were found at the point of maximal ST depression represented mainly patients without any ST depression at V5 (Dr Selwyn and colleagues). It would seem likely that the 35 patients with lesser ST changes at V5 than at the maximal point would show about 50% of the episodes of ST depression at V5 that could be found at the

point of maximal ST depression. It would be interesting to know if the point of maximal ST depression corresponds to the point of maximal R wave (or the direction of the QRS loop). If so, many cardiologists could immediately improve the sensitivity of single-lead ambulatory monitoring and bipolar exercise testing by placing the precordial electrode on the position of the maximal R wave in the 12-lead ECG.

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¹ Talbot, S, et al, *British Heart Journal*, 1976, **38**, 1247.
² Block, P, et al, in *Proceedings of the 7th European Congress of Cardiology*, 1976, p 737.
³ Kilpatrick, D, *Lancet*, 1976, **2**, 332.

Training in internal fixation of fractures

SIR,—Mr J C Griffiths (9 December, p 1615), perhaps unintentionally, has given the impression that the orthopaedic surgeon involved in the treatment of fractures may only pursue excellence by the regular use of the ASIF system, assuming that he has the time, patience, necessary facilities, and supporting staff.

Nothing could be further from the truth than this astonishing suggestion. An orthopaedic surgeon who has the time and patience and the necessary facilities and supporting staff may just as well pursue excellence through conservative treatment, provided that he has been properly trained and the methods are properly applied. Modern fracture management requires an eclectic approach which will come naturally to the orthopaedic surgeon whose training has preserved a sense of balance.

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"Therapy Options in Psychiatry"

SIR,—In his reviews of psychiatric books for the *BMJ* Dr Henry R Rollin demonstrates his traditional "medical model" approach to psychiatric practice and this denies your readers the opportunity of learning about the various forms of treatment which are available to, and used by, many psychiatrists today. This is especially important as he writes in a general medical journal and therefore acts as the "shop window" for psychiatry to many hospital specialists and general practitioners.

In his recent review of "Therapy Options in Psychiatry" (18 November, p 1423) he writes regarding marital therapy and family therapy, "By what token are doctors entitled to interfere in or to control the lives of other mortals?" We would like to point out that the aims of these therapies are no more to "control" or "interfere with" the lives of patients than are other forms of psychiatric treatment. In fact, establishing a contact at the outset will often give the patient a very much clearer choice and more control over the treatment than, say, with the use of drugs.

These forms of treatment may also be more appropriate and effective than the traditional psychiatric treatments. For instance, general practitioners and hospital practitioners are increasingly faced with sexual problems, behavioural disturbances in children, and forms of anxiety and depression in which drug treatment or traditional psychotherapy

are either ineffective or inappropriate and marital or family therapy is the treatment of choice.

While Dr Rollin may wish these therapies to remain outside medicine, we believe that all doctors should at least become acquainted with them in the best interest of their patients.

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What is a cohort?

SIR,—In their series "Epidemiology for the uninitiated" (2 December, p 1558 and 9 December, p 1616) Professor Geoffrey Rose and Dr D J P Barker use the word "cohort" to describe a group of persons selected by exposure to an environmental factor and studied during a subsequent period of time. This is not the meaning of "cohort" as it was first used in epidemiology by Wade Hampton Frost in a letter¹ to Dr Edgar Sydenstricker dated 29 July 1935. His meaning is quite clear from the text of that letter, published posthumously, and from its use in his paper^{2,3} "The age selection of mortality from tuberculosis in successive decades," also published posthumously. Subsequently this useful term was used in the sense which Frost intended, of which the shortest and best definition is that given by Case⁴ in 1956: "The essential feature of cohort analysis is that it follows the mortality rate of a population defined by its birth years throughout the life time of the surviving portion of that population" (my italics). The extension of its use to the study of population attributes other than mortality would be reasonable, but to extend its use to a group not characterised by birth within a defined period of time destroys the usefulness of the term and I hope that this is not now generally accepted. If it is, yet another word has lost its true value.

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¹ *Papers of Wade Hampton Frost*, ed K Maxcy, p 580. New York Commonwealth Fund, 1941.

² *Papers of Wade Hampton Frost*, ed K Maxcy, p 593.

³ Frost, W M, *American Journal of Hygiene*, 1939, **30**, 91.

⁴ Case, R A M, *British Journal of Preventive and Social Medicine*, 1956, **10**, 172.

Tetracycline preparations for children

SIR,—Dr R J Rowlatt (18 November, p 1436) suggests that it is irresponsible of us as manufacturers to make available liquid oral preparations of tetracyclines owing to the possibility of causing stained or deformed teeth in children.

In no way do we support the routine use of tetracyclines for the management of infections in children or pregnant women. However, these products have a significant role in the management of infections in which tetracyclines are the treatment of choice. The commonest of these are, of course, brucellosis and mycoplasma infection. As mycoplasma is being identified more and more as the cause of respiratory tract infection in children we feel that the continued manufacture of these formulations is justified on this basis. We do, of course, include a statement referring to the possibility of tooth staining and enamel hypoplasia on our data sheets so as to make

physicians more aware of the risks which are taken if this practice is followed.

In addition, there is a requirement for the liquid oral preparations for geriatric and psychiatric use and for patients unable to swallow solid dosage formulations.

Many other pharmaceutical preparations are available which, if used incorrectly, can lead to adverse effects although their clinical worth is not questioned. We do not feel that tetracycline should be an exception to this rule.

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Treatment of spasmodic torticollis with diazepam

SIR,—With reference to your excellent leading article on spasmodic torticollis (16 September, p 786) we wish to emphasise the efficacy of diazepam in the management of this disorder.

Case 1—In December 1976 a 19-year-old white woman presented in the emergency department with the typical picture of spasmodic torticollis. Intravenous diazepam 10 mg was given with immediate and full remission of this condition in 7 min.

Case 2—In December 1977 a 19-year-old white man was brought to the emergency department with fairly diagnostic features of spasmodic torticollis. Based on previous experience diazepam 5 mg was given intravenously with immediate and dramatic recovery. Relapse has not occurred in either of the patients to date.

Spasmodic torticollis is an uncommon problem generally of unknown aetiology. A strong psychosomatic component has been suggested. There is no specific therapy except when an underlying correctable process is found. Diazepam has been used successfully in the management of this disorder previously¹ and these cases further emphasise its efficacy. Hence we respectfully submit that diazepam should be considered in the management of spasmodic torticollis before the patient is referred to psychiatric or neurosurgical departments.

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¹ Bianchine, J R, and Bianchine, J W, *Southern Medical Journal*, 1971, **64**, 893.

BPAS and AID

SIR,—I regret that the information given by Diane Munday (16 December, p 1712) does not "clear up . . . the anxieties . . . in people's minds" about BPAS's new service but only increases them, since it is clear that they still do not understand the ethical and practical problems involved.¹ For example, if, as she says, the husband's semen was used in two out of three cases then this was not AID (donor insemination) but AIH (husband insemination), where there are few religious or ethical objections. In that case either BPAS does not distinguish between AIH and AID or, if it does, then AID was being considered where it

was not required, thus confirming my argument that AID should only be performed by experts in male and female infertility.

She states that "BPAS is not going to exclude anybody for AI by laying down prejudged criteria." Why not? There is no parallel in her comparison of sterilisation requirements; after sterilisation there should be no end-product of a child, "whose welfare should be paramount," whereas after AID there is. That child will be born into a single-parent family. I still maintain that a one-parent family should not be accepted for AID with the very high risk that both child and mother will be a burden to themselves and to society.²

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¹ Sandler, B, *Guardian*, 8 February 1958.

² Davis, J A, *Lancet*, 1978, **2**, 1257.

DIY blood-pressure machines

SIR,—It is well recognised that elevated blood pressure is associated with increased risk of cerebrovascular and also possibly of cardiovascular disease and death. We also know that high blood pressure is usually without symptoms. It is therefore sensible to suggest that all adults should occasionally have their blood pressure measured. A possible way to do this is to educate family doctors to ensure that all their patients have this done. Inevitably such an approach would take a lot of time and effort and it would be much simpler for the public to take their own blood pressure, as they do their own weight.

We therefore find it remarkable that a BMA spokesman should appear on television and suggest that "do it yourself" blood-pressure machines may do more harm than good, and that people need only have their blood pressure taken by their general practitioner if they have symptoms such as headache, dizziness, etc.

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Influence of diphenylhydantoin on the effect of streptozotocin

SIR,—Dr A B Atkinson and his colleagues report on an apud cell carcinoma in a diabetic patient treated with streptozotocin (18 November, p 1397). We observed a 24-year-old male patient suffering from an organic hypoglycaemic syndrome caused by a metastatic apud cell carcinoma of the pancreas. The polypeptide hormone contents of 1 g of wet tumour tissue were: insulin, 34.66 IU (proinsulin, 37%); gastrin, 211 pg; glucagon, 4.725 µg (proglucagon, molecular weight 9000, 46%). The patient was treated with streptozotocin and diphenylhydantoin as adjunctive therapy since we had not experienced any appreciable effect with diazoxide,¹ 2 g of streptozotocin being given every 4 days together with 400 mg of diphenylhydantoin daily. After the third dose of streptozotocin nausea and vomiting forced us to stop oral treatment with diphenylhydantoin. Five days later the patient again received 2 g of streptozotocin but without diphenylhydantoin. As shown in the figure, when diphenylhydantoin

Responses of plasma insulin to 2 g of streptozotocin intravenously during (curves 1, 2, and 3) and after (curve 4) diphenylhydantoin treatment.

Conversion: SI to traditional units—Insulin: 1 nmol/l $\approx$ 145 mU/l.

was administered simultaneously streptozotocin caused only slight insulin release compared with the effect observed after the withdrawal of diphenylhydantoin, when streptozotocin caused a marked insulin response. Thus pretreatment with diphenylhydantoin seems to protect the beta cells from the cytotoxicity of streptozotocin as it does in the case of alloxan,² and the characteristic insulin release induced by streptozotocin fails to occur. We suggest that when streptozotocin is given simultaneous treatment with diphenylhydantoin should be avoided.

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¹ Knopp, R H, et al, *Archives of Internal Medicine*, 1972, **130**, 903.

² Schimmel, R J, and Graham, D, *Hormone and Metabolic Research*, 1974, **6**, 465.

The troubles at Normansfield

SIR,—During the early troubles at Normansfield Hospital I was president of the Consultants' Association, to which Dr Terry Lawlor subscribed. One point might be of interest to your readers; to the best of my knowledge it did not emerge from the official inquiry.

On the collapse of the ad hoc inquiry chaired by Mr G Kidner, strenuous efforts were made to reach a settlement in a highly confidential manner. We were all aware that neither Dr Lawlor nor any other party was likely to come out of a Section 70 inquiry unscathed, though the degree of trauma suffered by almost all parties has surprised some of us.

A compromise was indeed reached with the overt or covert agreement of all parties concerned. I have no intention of revealing the terms save to disclose that under its terms Dr Lawlor was to be offered another, similar consultant post in the same region. The terms of the compromise were put to Dr Lawlor in chambers in my presence; I advised him most strongly to accept them. That he refused them