present practice of dissection of selected areas. It is also of interest that few efforts seem to have been made to assess the students' abilities and technical skills in dissection, rather than their knowledge of topographical anatomy.

Experiments to test these assumptions, and to investigate the types of technical skills needed and used by successful surgeons and their pattern of development, could be relatively easily devised and carried out. It is devoutly to be hoped that some attempt to do so will be made, to reduce the sterility that will otherwise unavoidably enter this discussion.—I am, etc.,

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Prescribing on Clinical Grounds

SIR,—Dr. P. A. T. Wood (12 June, p. 655) is, of course, correct in pointing out that no system of medical care allows clinical judgements to be isolated from economic considerations. It was one of the myths of our National Health Service that this should be possible. However, he is wrong in suggesting that economic considerations have been forgotten in National Health Service prescribing. The Government's regional medical officers do not deal only with "those few doctors who are guilty of gross or careless prescribing." Every general practitioner whose prescribing costs are 25% above the local average has his attention drawn to the need for economy, and such doctors are frequently criticized for specific prescribing decisions. The Government also regularly mails all National Health Service doctors with information on comparative costs of different preparations. It is possibly owing in part to these activities that prescribing costs under the N.H.S. are both absolutely and proportionately lower than in practically any other country.

Where Dr. Wood might more appropriately focus his attention would be on the other 90% of Health Service expenditure. I wonder how many general practitioners consider the costs they are incurring for the taxpayer in referring a patient to hospital or in issuing a sickness absence certificate? Sickness benefit payments alone cost the Exchequer nearly twice as much as the pharmaceutical service. I wonder how often a surgeon considers the cost to the taxpayer of deciding to operate or even to keep a patient in hospital? Everyone working in the National Health Service must always remember that his decisions to prescribe or undertake treatment of any sort will preempt resources which could be used to satisfy unmet needs elsewhere.—I am, etc.,

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Dental Emergencies

SIR,—In relation to the letters by Mr. D. N. Barber (5 June, p. 590) and Mr. I. Domb (12 June, p. 651) regarding the lack of availability of emergency dental treatment for haemorrhage and toothache, it is reassuring to those doctors who are closely associated with the dental profession to know that the reluctance to provide these services stems

from the Department of Health rather than the dentist himself.

It has for long been a source of disappointment to doctors that, while the leaders of the dental profession apparently readily consented to the treatment of dental haemorrhage being considered "a part of the general medical services," the same leaders have steadfastly refused to allow general anaesthesia, when administered by a doctor, to become anything but "a part of the general dental service." This refusal has, of course, allowed the perpetuation of a system whereby the experienced doctor is treated as the agent or employee of the dentist, and, as such, is denied the right to negotiate the terms of his service directly with the Department of Health. The Department, for obvious reasons, is not eager to change this totally illogical system, but it is difficult to understand why the dental profession appears so anxious to allow anaesthetic fees, which are handed over to a doctor, to be deducted from the total pool of money available for the payment of genuine items of dental treatment from which, surely, the majority of dentists derive their "average gross income."—I am, etc.,

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Interpretation of Therapeutic Trials

SIR,—Dr. G. H. Hall (22 May, p. 463) raises an important and interesting point. He suggests that to identify why some patients do well when given a treatment while others do badly could be more rewarding than simply to ascertain what happens in a group. The organization appropriate to these two enterprises is, however, somewhat different. The question which we were primarily trying to answer (1 May, p. 239) was whether treatment with azathioprine and prednisone would be generally beneficial to patients in certain particular categories of renal disease, which we defined. This group analysis was in fact supplemented by a case-by-case scrutiny of the patients who appeared to do best with treatment and those who deteriorated most; but this revealed no more than that those who fared badly were those whose initial renal function was worst. We did, however, note among the control group some instances of "undoubted improvement." Experiences of this kind suggest that the controlled trial, despite its undoubted limitations, is a useful and sometimes necessary means by which to assess therapeutic policies, since these are sometimes based on a high ratio of enthusiasm to evidence.—We are, etc.,

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Is Fetal Monitoring Worthwhile?

SIR,—A paper by Steer and Beard¹ not mentioned in your leading article on fetal monitoring (6 March, p. 515) deserves to be more widely known.

They showed that clinical observations can provide information on fetal condition as useful as that from the fetal electrocardiogram and tocograph. Contractions were timed by palpation, and with an ultrasound trans-

ducer (Sonicaid or Doptone) the fetal heart rate could be followed during contractions.

There can be few obstetric units now without an ultrasound transducer. Thus effective monitoring of this aspect of fetal well-being can be introduced without any extra expense.—I am, etc.,

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¹ Steer, P. J., and Beard, R. W., *Journal of Obstetrics and Gynaecology of the British Commonwealth*, 1970, 77, 908.

Liver Damage and Methotrexate

SIR,—It is a pity that Dr. L. A. Price (22 May, p. 464) has quite missed the point of the article by Dr. M. G. C. Dahl and others (20 March, p. 625). First let me assure him that the role of the kidney in the excretion of methotrexate is well known. Dermatologists use this drug only after renal function has been found to be satisfactory by blood urea estimation and a creatinine clearance test. The sort of pharmacological data quoted by Dr. Price are equally well known. Such findings in experimental animals led to the introduction of intermittent parenteral therapy for psoriasis by Van Scott *et al.*¹

Dr. Price begs the question when he says that "the toxicity of methotrexate is not proportional to the dose but rather to the time for which a given plasma level is maintained." But what is the given level? Oral doses of 2.5 mg, given five days each week for psoriasis, produce peak plasma levels of about 200 µg/ml and levels above 30 µg/ml may be maintained for up to five hours daily—for example, for up to 25 hours of each week. In comparison, single weekly oral doses of 0.4 mg/kg body weight (the sort of dose used for psoriasis) give peak levels of up to 2,000 µg/ml, but levels of 30 µg/ml may be maintained for over 24 hours each week.² Do we really know which of these patterns of plasma levels is more or less likely to produce liver damage in the long term? Short-term suppression of bone marrow is quite different from long-term liver damage; the two organs are not "kinetically similar" as Dr. Price states.

The problems of massive therapy in patients with cancer are quite different from those in the healthy psoriatic in whom long-term treatment with methotrexate—possibly for years—is contemplated. Cipriano *et al.*³ have shown that leucovorin "rescue" after standard doses of methotrexate resulted in prompt relapse of psoriasis. It is likely that the epidermal cells obtain reduced folates from the liver and that long-term inhibition of liver production is necessary before psoriasis can be well controlled. The failure of topical methotrexate to influence psoriasis would support this notion.⁴

Papers such as that of Dr. Dahl and his colleagues are a valuable step along the road to clarification of the correct place of methotrexate in the management of psoriasis.—I am, etc.,

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¹ Van Scott, E. J., Auerbach, R., and Weinstein, G. D., *Archives of Dermatology*, 1964, 89, 550.

² Noble, W. C., Baker, H., and White, Pamela M., unpublished observations.

³ Cipriano, A. P., Selsky, L. M., and Bertino, J. R., *Archives of Dermatology*, 1970, 101, 651.

⁴ Comaish, S., and Juhlin, L., *Archives of Dermatology*, 1969, 100, 99.