UK, a careful analysis of diagnostic procedures and treatment regimens has to be undertaken to plan the most effective way of using limited funds for the benefit of the maximum number of people, as is done in India² and East Africa.³ Of course, basic diagnostic skills are required everywhere; extensive practice at applying them to local people with problems common in the local community are also required. But the doctor who qualifies unable to function effectively within the limits set by local resources and to use these resources to the best advantage seems to me to be a failure of medical education whom the country had better have not trained at all or, rather, who ought to have had a different medical education.

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SIR,—I did not feel that the most interesting article by Dr B Senewiratne and others (4 October, p 27) should be allowed to pass without comment. It contained much sound common sense which is relevant not only to the training of postgraduates in this country but to the training of medical students. Fashions in education come and go. Many of us have our special interests—some in nephrology, some in teratology, some in cardiology, some in mental deficiency, some in extremely rare diseases, and some in the normal child—but whatever our interest, and whatever the popular subject at the time, those who plan teaching must preserve a sense of balance and not overemphasise their own interest or one subject at the cost of others of equal or greater importance.

Of course all students have to be taught about the vital importance of the social aspects of medicine, of surgery, paediatrics, obstetrics, and other subjects, and probably most of us have taught that in outpatients, casualty, and the wards. These social aspects greatly interest students if properly taught, but students must also be taught about illness and disease, how to recognise the sick child, and how to treat the common important conditions. I believe that in Britain there is a danger that too much time may be devoted to social medicine. If one adds one subject or increases the time allotted to it one has to take it off something else. I fear that after some modern curricula new graduates will be unable to recognise an ill patient when they see one, and not know what to do with him.

The imbalance which Dr Senewiratne and others describe in Sri Lanka, with 973 hours devoted to teaching public health and only 979 hours to the rest of medicine (and 256 hours to paediatrics) when half the population is under the age of 15, could well occur here and elsewhere.

RONALD ILLINGWORTH

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Mao's China

SIR,—It is sad to read so many testimonials to life in China. We should remember that the ruler is a pitiless dictator—a man of extraordinary genius, on a par with Hitler and Stalin. We should remember the attack on South Korea involving Chinese troops and brain-washing by torture; the imprison-

ment of people in solitary confinement in tiny cells for no crime and after no trial; the cultural revolution which encouraged young thugs to beat up the intelligent people. We should note, too, that the Chinese fish in any pool where they think they can cause trouble. In how many African countries are they doing the devil's work?

Apparently everybody in China obeys. Are there no non-conformists? And what happens to them? I do not suppose that more than a handful even of Chinese know what is happening in that enormous country, yet the latest admirers (11 October, p 99), after three weeks' visit, tell us that they have abandoned acquisitiveness—in other words they have abolished original sin. I remember in my youth reading in the liberal *Daily News* about the Russian revolution—how marvellous that out of this terrible war should have come the dawn of freedom for the Russian people. I remember all the good things Mussolini did in Italy and how Hitler cured unemployment.

I wish some of your correspondents could bring home from China some news of missing Christians. The thoughts of Chairman Mao are poor spiritual food indeed and not a good exchange for freedom. The price of freedom is a heavy one. I am beginning to wonder if we are any longer prepared to pay it. If not, perhaps we should welcome someone who would tell us exactly what to think and what to do.

R W COCKSHUT

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"Bright ring of words"

SIR,—May I congratulate you on the vastly improved appearance of the *BMJ* since 4 October? In 1963¹ I deprecated its antique house style, which involved scattering capital letters throughout the headlines, captions, legends, and so on, as though sprinkled from a pepperpot, and suggested you join the rest of us in the 20th century. It has taken time for my suggestion to bear fruit, but the result is worth the wait.

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¹ de Glanville, H, *British Medical Journal*, 1963, 1, 1417.

Treatment of clonidine overdose

SIR,—It is unfortunate that the interesting short communication on clonidine overdose by Dr S N Hunyor and others (4 October, p 23) should include the statement that "forced frusemide diuresis seems to be an effective means of removing clonidine." This conclusion appears to be drawn from the observations on their first patient, who received frusemide and excreted 47% of the ingested clonidine in the urine within 24 hours. Since healthy subjects excrete about 44% of single doses of clonidine in the urine within 24 hours¹ without frusemide it seems unlikely that the diuretic made much difference, although it would probably be wiser to draw no conclusion from this single observation.

The authors themselves did no more than administer a single dose of 50 mg frusemide, but the term "forced frusemide diuresis" implies a more elaborate procedure² which is

potentially hazardous and would be particularly undesirable in hypertensive patients with cardiovascular complications. Statements of this kind are readily incorporated into the folk lore of clinical toxicology and are difficult to remove.³ I suggest that the treatment of clonidine overdose should not include any form of forced diuresis until some evidence for its efficacy has been produced.

L RAMSEY

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- 1 Rehinder, D, *Catapres in Hypertension*. London, Butterworths, 1970.
- 2 Linton, A L, Luke, R G, and Briggs, J D, *Lancet*, 1967, 2, 377.
- 3 Matthew, H, *British Medical Journal*, 1971, 1, 519.

Diseases of central nervous system

SIR,—Since when has myasthenia gravis (18 October, p 152) been a disease of the brain or spinal cord?

J M K SPALDING

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Antipsychiatrists and ECT

SIR,—Your leading article (4 October, p 1) highlights the importance of encouraging research into the mechanism by which ECT produces improvement in depressive illness. Possibly it stimulates the sympathetic system. Weil-Malherbe¹ showed that ECT raised blood levels of adrenaline briefly. It has also been shown to cause a rise in plasma ACT.²

The effect of ECT might be directly on cerebral cell membranes. If so, membrane stimulation could well produce an increase in intra- and hence extracellular 3'5' cyclic adenosine monophosphate (cAMP). This possibility was investigated by Hamadah,³ who found rises in urinary cAMP on the day of ECT. In our recent study on urinary cAMP and ECT we could find no such rises.⁴ Further studies on ECT are urgently required because, in the final analysis, the only way to counter criticisms of it as a therapeutic tool will be a clear understanding of its mechanism of action.

Perhaps if the same resources were put into this field as into the research and development of a new drug in the pharmaceutical industry ECT would no longer remain a mystery and would take its rightful place in psychiatric practice.

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- 1 Weil-Malherbe, H, *Journal of Mental Science*, 1955, 101, 156.
- 2 Allen, J P, et al, *American Journal of Psychiatry*, 1974, 131, 1225.
- 3 Hamadah, K, et al, *British Medical Journal*, 1972, 3, 439.
- 4 Moyes, I C A, and Moyes, R B. In press.

Silicone foam sponge for pilonidal sinus

SIR,—The paper by Mr R A B Wood and Professor L E Hughes on silicone foam sponge for packing granulating wounds (18 October, p 131) was instructive. The statistics and discussion which follow about their series of patients with pilonidal sinus is bewildering. Some years ago Mr Peter Lord

demonstrated a most simple outpatient technique of excising the sinus and cleaning out any tracts under local anaesthesia. Over the last six years I have used this method for almost a hundred patients and the rate of recurrence has been negligible. The procedure takes less than 10 minutes, only a dry dressing is required, and many patients return to work the following day. Most patients can then attend to their own dressings, and one or two follow-up visits to the clinic are all that is required before discharge. Instead of six inpatient days with the foam elastomer sponge those treated by the "Lord" technique spend more like six minutes in the hospital.

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Early thymectomy for myasthenia gravis

SIR,—I have long accepted the value of early thymectomy in myasthenia gravis¹ and I therefore read with interest Mr A E Kark's (6 September, p 593) and Mr C Grimshaw's (4 October, p 40) comments.

No one would deny that a less mutilating surgical procedure must benefit the patient (and also the surgeon), but what worries me is the likelihood that anything less than a full exposure of the anterior mediastinum may result in a procedure which is less than a total thymectomy. The following case illustrates this.

A woman aged 41 underwent trans-sternal thymectomy for generalised myasthenia. A typical fleshy thymus gland weighing 10 g was removed. It must be stressed that the gland was clearly delineated and easily dissected in its entirety, and one would have been justified in assuming that the whole thymus had been removed. However, a final look round before closure revealed fatty masses on either side and extending into the lung hila. These were then dissected and also examined histologically. Section of the thymus revealed thymic tissue with areas of adipose tissue between lymphoid aggregates, germinal centers being very prominent. Section of both lateral fatty masses revealed adipose tissue with fragments of thymic tissue similar to the histological features noted in the main thymus gland.

While it is known that ectopic thymic tissue is not uncommon, the above findings have been noted and proved histologically on numerous occasions, and this is the main reason for my continuing to use the trans-sternal approach.

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¹ Lange, M J, *British Journal of Surgery*, 1960, 48, 285.

Diagnosis of gastric cancer

SIR,—The article by Dr A W Segal and others (21 June, p 669) emphasises the poor diagnostic yield of direct vision gastric biopsy in relation to gastric carcinoma. Their result of only 70% biopsy confirmation of carcinoma is by no means in keeping with experience in other centres. Kasugai reports a 92.8% positive biopsy correlation in 751 proved gastric carcinomas.¹

In all but four of 130 gastric carcinomas examined by endoscopy at this hospital in just over four years the diagnosis was confirmed by biopsy evidence. Two of the patients with the false-negative biopsy results

were recognised by the endoscopist to have advanced carcinoma. There were no false-positive biopsies. We take 8-12 bites routinely of all doubtful or suspicious ulcers, using the Olympus GFB or JFB instruments. Our current policy is that surgery for cancer is not performed unless a positive biopsy report is obtained. However, if a lesion is suspected of being malignant endoscopy and biopsy are repeated until x-ray, endoscopy, and biopsy findings correlate.

Dr Segal and his colleagues do not refer to the problem of the diagnosis of early gastric cancer, which is so well recognised by Japanese workers.²

Despite the falling standardised mortality rate in Australia for gastric cancer³ the recognition of these early lesions does much to increase survival figures. In our experience with early gastric cancer⁴ the reliance on biopsy and its interpretation is paramount and the overall value of direct-vision gastric biopsy cannot be over-emphasised.

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¹ Kasugai, T, and Kobayashi, S, *American Journal of Gastroenterology*, 1974, 66, 199.

² Murakami, T, *Pathomorphological Diagnosis*, Gann Monograph II, p 53. Tokyo, University of Tokyo Press, 1974.

³ Scott, G, *Cancer Forum No 5*, Australian Cancer Council, August 1975, p 250.

⁴ Barrett, P J, *et al*, *Gut*. In press.

Paradoxical effect of pindolol

SIR,—Drs Hendrika J Waal-Manning and F O Simpson (19 July, p 155) report on nine cases among 260 hypertensive patients whose blood pressure (BP) fell when the dose of pindolol was reduced. From our experience with pindolol in hypertension the incidence of this so-called "paradoxical" effect may be more general than is suggested.

We have recently carried out a controlled study,¹ in which a reduction of the pindolol dosage from about 30 mg daily to about 20 mg daily consistently gave a further reduction in blood pressure.

Of 38 patients with essential hypertension (WHO grade 1) with a diastolic BP of 100-129 mm Hg, 20 were treated with pindolol and 18 with propranolol for 14 weeks after an initial placebo period of four weeks. The patients were examined six times—initially, after the placebo period (visit 2), after a pretreatment period, after four weeks' treatment with the full dosage of pindolol (29 mg daily) or propranolol (232 mg daily), after four weeks' further treatment with an individually adjusted dose of pindolol (average 29 mg daily) or propranolol (average 241 mg daily) (visit 5), and finally after a

further four weeks' treatment during which the individual doses were reduced by one-third by the elimination of the midday dose so that patients received medication in the morning and evening only (visit 6).

The table shows how the BP changed between visits. At visit 5 the BP reductions on pindolol and propranolol were similar; further reductions followed on pindolol treatment when the dose was lowered and given only twice daily during the last four-week period. The results with propranolol were somewhat different: the systolic, diastolic, and mean pressure decreased up to visit 5 but increased again after dosage reduction and the change to twice-daily administration.

PER BJERLE
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G AGERTDepartment of Clinical Physiology,
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¹ Bjerle, P, *et al*, *Current Therapeutic Research*. In press.

Serum cholesterol and enzyme-inducing agents

SIR,—We read with interest the report by Dr Risto Pelkonen and others (11 October, p 85) of increased serum cholesterol levels in patients receiving phenytoin. We have recently completed an investigation of the effects of phenobarbitone on serum lipids in healthy young volunteers (the results of which have been submitted for publication elsewhere). We similarly found a significant increase in the level of total serum cholesterol occurring within three weeks, which was entirely accounted for by a rise in low density lipoprotein cholesterol. Total serum triglycerides and very low density lipoprotein triglycerides were not altered, although a significant rise in low density lipoprotein triglycerides did occur. Evidence that drug-metabolising enzymes were induced was provided by a considerable increase in antipyrine clearance.

Microsomal enzyme induction, an effect of both phenobarbitone and phenytoin, would be a possible mechanism for the rise of serum cholesterol, since the rate-limiting enzyme for cholesterol biosynthesis, β -hydroxy- β -methylglutaryl-CoA reductase, is microsomally located.¹ Increased hepatic and intestinal cholesterol synthesis has been produced experimentally in phenobarbitone-treated animals.^{2,4}

Raised levels of serum cholesterol have previously been shown in persons receiving phenobarbitone,⁵ in children on anti-convulsant therapy,⁶ and in a patient undergoing medical treatment with phenobarbitone for gallstones.⁷ Therefore we would agree that a rise in serum cholesterol is a

	High dose visit 2→5		Reduced dose visit 5→6	
	Pindolol	Propranolol	Pindolol	Propranolol
No of patients	20	18	20	16*
Mean dosage change (mg)	0→29	0→241	29→176	241→176
Resting BP changes:				
systolic (mm Hg)	-17.0	-14.4	-3.1	+3.6
diastolic (mm Hg)	-10.7	-8.6	-1.1	+4.1
mean (mm Hg)	-12.9	-10.5	-1.7	+4.0

*Two patients were excluded since they did not follow the dosage instructions.