wider and more serious problem to which he refers in his last paragraph when he writes, "There are many GPs like myself, who feel that such drugs have little to offer the unhappily married woman or the man whose business is failing." He is absolutely right. So often these drugs do no more than convert an anxious but clear-headed person into an anxious but woozy-headed person.

There is, of course, a proper place for the correct use of anxiolytics, antidepressants, and other psychotropic drugs. However, their abuse has become a menace which is well illustrated by Dr Reilly's patient who "had been discharged from a mental hospital taking daily 50 mg of Sinequan (doxepin), 3 mg of Ativan (lorazepam), 100 mg of Surmontil (trimipramine), 50 mg of Melleril (thioridazine), and 10 mg of Mogadon (nitrazepam)." I cannot conceive of any psychiatric disorder for which this could be the appropriate treatment.

Professor W H Trethowan has recently called attention to this problem in your columns (27 September, p 749). He concludes correctly that the situation has implications for medical education that should worry us.

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Organisation of cardiac surgical services

SIR,—We agree with the suggestion in your leading article (13 September, p 609) that cardiac surgical services in this country need to be organised on a more rational basis. In some areas inadequate facilities and staffing are responsible for dangerously long waiting lists. Elsewhere there are still units operating on insufficient numbers of patients to enable efficient and economic use to be made of existing resources. The establishment of a national register similar to that in Australia since 1963 would be the first step towards rectifying the situation.

We believe that the Society of Thoracic and Cardiovascular Surgeons of Great Britain and Northern Ireland is the most appropriate body to organise such a register and suggest that each year every cardiac surgical unit in the country should submit details of its work load in terms of numbers and categories of operations performed, the length of its waiting list, and the hospital mortality figures for that year. Only on the basis of such knowledge can proper regional planning be instituted in the future.

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Amoebic meningitis

SIR,—In his article on meningitis and encephalitis (8 November, p 335) Dr C C Smith mentions amoebic meningitis (usually referred to as primary amoebic meningo-encephalitis) in the section devoted to "rarer forms of bacterial meningitis"! He makes the statement that the condition is "rare in temperate climates, but may occur in Britain during a hot summer." Although it is true that most cases have been associated with swimming or playing in warm

water (for example, warm springs in New Zealand, indoor swimming pool in Czechoslovakia), nearly all have occurred in temperate climates—Australia, Belgium, Czechoslovakia, and Virginia. There is doubt whether the rarity of this condition in Britain is real or due to failure in diagnosis. Free-living amoebae should be sought whenever the cerebrospinal fluid from a patient with meningitis is bacteriologically sterile, particularly if the patient is an adolescent.

Dr Smith also states that the causative organism is sensitive to clotrimazole; Jamieson¹ has shown that although *Naegleria fowleri* is sensitive to clotrimazole in vitro, this drug has no protective effect when given to infected mice.

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¹ Jamieson, A, *Journal of Clinical Pathology*, 1975, **28**, 446.

Anaemia, smoking, and pregnancy

SIR,—I was interested to read the paper by Dr T G B Dow and others (1 November, p 253) on changes in comparative carboxy-haemoglobin (COHb) concentrations after smoking a single cigarette in non-pregnant, normal pregnant, and anaemic pregnant women. While marked variations in mean percentage COHb level were clearly demonstrated in the three groups of women studied, and while these changes may be important, alterations in absolute COHb concentration are possibly of much more fundamental significance. Recalculation of the authors' data yields the following absolute COHb concentrations (mg/dl) for mean values in the three groups.

	Blood COHb (mg/dl)		Difference
	Before	After	
Normal pregnancy ..	203	672	469
Anaemic pregnancy ..	150	596	446
Non-pregnant controls ..	300	583	283

When expressed in this manner the results show that (1) anaemic pregnant women have the lowest mean COHb before smoking, (2) non-anaemic normal pregnant women have the highest mean COHb after smoking, and (3) non-pregnant women have both the highest mean COHb before smoking and also the smallest rise after smoking.

The contention that anaemia may increase the undoubted risks to the fetus caused by cigarette smoking in pregnancy does not appear to be supported by these results.

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Hyperactivity in children

SIR,—Your leading articles (18 October, p 123, and 10 February 1973, p 305) on childhood hyperactivity have provided valuable contributions to the debate on this important but controversial topic. We were surprised, however, that you did not mention the recent

findings that hyperactivity can be induced in experimental animals as an early symptom of lead intoxication¹⁻⁴ and by δ -aminolaevulinic acid (ALA).⁵ ALA excretion in the urine is elevated in both acute intermittent porphyria and lead poisoning, and this fact raises the possibility that neurological abnormalities which can be brought about by the administration of sublethal doses of lead may be a secondary effect consequent upon an interference with haem synthesis. The biochemical mechanism may involve inhibition by ALA of the (Na⁺-K⁺)-dependent ATPase in human brain tissue.⁶

Lead-induced hyperactivity resembles the form of childhood hyperactivity discussed in your more recent article in its paradoxical response to drugs: amphetamines and other central nervous system stimulants reduce the degree of activity and phenobarbitone increases it.^{1,2} This evidence for lead-induced hyperactivity in experimental animals does not in itself establish that the same phenomenon can occur in man; but it is of special interest in connection with the report by David *et al*⁷ that some hyperactive children have higher lead burdens than do non-hyperactive controls. David has obtained further evidence that hyperactivity per se does not produce elevated lead levels (personal communication to DBS).

The evidence does not, of course, enable us to state which place lead occupies in the ranking order of causes of hyperactivity. However, confirmation that lead produces behavioural effects in children would offer some prospect of a more fundamental contribution to the prevention of the syndrome since environmental lead levels are more amenable to correction than are social stresses. It might also be possible to hope that curative rather than palliative treatment could be offered in those cases in which lead was shown to be a factor.

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- 6 Kramer, S, *et al*, *South African Journal of Laboratory and Clinical Medicine*, 1971, **17**, 103.
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Mortality of pathologists and medical laboratory technicians

SIR,—In their most interesting study Dr J M Harrington and Mr H S Shannon (8 November, p 329) report the surprising finding that eight male English pathologists died from neoplasms of the lymphatic and haemopoietic tissue (ICD 200-209) whereas the expected number was 3.3. No excess was noted for Hodgkin's disease (ICD 201) or leukaemia (ICD 204-207), which leaves lymphomata, multiple myelomatosis, and polycythaemia rubra vera—six deaths found and 1.4 expected.

This article reminded me of a study I undertook in 1968 on the causes of death of South African doctors, in which I found that