of environmental medicine, the whole of public health as local authorities have administered it, the departments of social medicine and, indeed, much psychosomatic medicine contravene the medical ethic.

A century ago, when the world's human population was a quarter of what it is now, open sewers in English cities and contaminated water supplies stirred Chadwick and others to promote public health legislation. They were already dealing with the symptoms of local overpopulation. I intend no lack of respect for their great achievements when I point out that what the public health acts have treated have been the symptoms and not the cause. The cause is overpopulation.

Is it really against the medical ethic to treat the cause of much potential disease?—I am, etc.,

KENNETH BARLOW

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SIR,—I fear Lord Brock (12 February, p. 440) is too late to stop the rot. Doctors have long encouraged public health measures and immunization to prevent infectious disease for the general good, and not on medical grounds in the individual patient.

Overpopulation, partially the result of this successful prophylaxis, produces medical and psychiatric as well as social disease. Yet now we have the means of prevention by the control of conception. Let doctors encourage and practise the prophylaxis of this new disease with as clear a conscience as they did the old.—I am, etc.,

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SIR,—I was not a little surprised to read Lord Brock's comments (12 February, p. 440) on the "Doctors and Overpopulation" letter (8 January, p. 108). In particular, his statement "I find it difficult to see that as doctors we have a concern with the problem of overpopulation" (the italics are his) seem to ignore a number of cogent and highly relevant facts. For example, as already mentioned in the original letter, overpopulation is to a certain extent clearly iatrogenic. Again, would Lord Brock "write off" the efforts "as doctors" of the medical officers of health and their numerous medical assistants whose major efforts lie in the field of preventive and social medicine? We take their work as much for granted as we do the seasons of the year; until an emergency situation such as a potential smallpox or typhoid epidemic appears in our midst.

Is it not reasonable to suggest that the more civilized a community the greater the emphasis on and effectiveness of preventive medicine; that much of hospital doctoring as many of us know it boils down to a tentative situation of reparative medicine, where the fundamental goal of discharging home a patient with a totally integrated and wholly functioning mind and body is as yet more a concept of fantasy than fact.—I am, etc.,

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Status Epilepticus

SIR,—Your leading article on status epilepticus (19 February, p. 460) mentions the treatment regimen of intravenous diazepam as a slug dose followed by drip infusion. An intravenous dose of 10 mg repeated if necessary is a valuable and readily available emergency measure, and may be immediately effective; but if status or serial epilepsy recurs response to further diazepam is often poor. We therefore tend to use paraldehyde 10 ml intramuscularly followed by a drip (30 ml in 500). The method is safe and control once established is prolonged, thus allowing a more easy transfer from intravenous to oral therapy with standard anticonvulsants, and to normal levels of responsiveness. This second phase of treatment is often the more difficult.

In our experience status presents in two groups: one where response to initial treatment by any of a number of methods is rapid and lasting, the other in which seizures recur early and are very difficult to control. These two populations account for some seeming contradiction in therapeutic results. The latter group constitutes the problem of treatment and its early recognition is not easy. Since many cases of status will present initially to those unfamiliar with it, the establishment of simple and effective treatment regimens is the more important.—We are, etc.,

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Renal Function and Plasma Digoxin Levels

SIR,—We note with interest the work reported by Dr. E. Mary Baylis and others (5 February, p. 338) concerning renal function and plasma digoxin levels, which parallels a project proceeding in our own hospital.

From the results presented we would suggest that it is a little premature to state that creatinine clearance measurements are of no value as a guide to digoxin dosage. Our own results for creatinine determinations in plasma using the method indicated by the authors¹ show considerable variation and have proved unacceptable for a study of this type. We are currently evaluating a method outlined by Cook² which follows the rate of colour development at 510 nm after the addition of alkaline picrate to aqueous dilutions of plasma.

We have also found the Lanoxitest method for digoxin assay to be of insufficient sensitivity for research work of this nature. Results in our own laboratory suggest that considerable care is required when determining urinary digoxin by radioimmunoassay, particularly with regard to the medium chosen for dilution of the sample, and in the process of quench correction.

While not disputing the conclusions the authors have made we feel that the above points should be considered before the original work of Jelliffe and Blankenhorn³ and Jelliffe⁴ is dismissed.—We are, etc.,

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- ¹ Henry, R. J., *Clinical Chemistry: Principles and Technics*, p. 292, New York, Hoeber, 1964.
- ² Cook, J. G. H., *Clinical Chimica, Acta*, 1971, 32, 485.
- ³ Jelliffe, R. W., and Blankenhorn, D. H., *Circulation*, 1967, 35, 36, Suppl. II, p. 150.
- ⁴ Jelliffe, R. W., *Annals of Internal Medicine*, 1968, 69, 703.

Clotting Factor Concentrates

SIR,—Mr. T. W. Barrowcliffe and others (29 January, p. 309) raise several interesting points, some of which are worthy of emphasis and others of guarded caution. To the best of our knowledge this must be the first time that a group has got down to the problem of making a serious attempt to estimate the requirements of this clotting factor concentrate in their own area. On this item alone the authors deserve congratulations, for it is this type of regional market research that is lacking in the field of blood transfusion practice, and may be partially responsible for the slow development of adequate plasma fractionation capacity in the United Kingdom. Whether their predictions are accurate or not can be debated, but in the interests of such a dialogue it might be helpful to record the actual use of these type of concentrates for 1971 in the south-east of Scotland, which has a population of 1.25 million.

There are two preparations made available by the Scottish Plasma Fractionation Centre. The first is a product containing coagulation factors II, VII, IX, and X and the other contains factors II, IX, and X. This latter concentrate is reserved for the management of haemophilia B patients. The release of these products is strictly controlled from the regional blood transfusion centre, and is undertaken only after full discussions by a member of our medical staff with the clinician responsible for the patient's care. It is a pleasure to record the excellent co-operation we have received from our clinical colleagues. The use of these products in 1971 can be summarized as follows:

	Reason for Infusion	No. of Patients	No. of 10 ml vials
II VII IX and X Concentrate	Oral Anticoagulants (reversal)	20	45
	Acute Liver Failure	12	33
	Cardiopulmonary Bypass		
	Surgery	3	9
	Premature Infants	3	3
	Bleeding Varices	1	4
	Liver Biopsy	5	10
	Vitamin K Deficiency	1	1
		45	105
II IX and X Concentrate	Haemophilia B	3	135

We would seriously doubt the wisdom of the implied suggestion that regional blood transfusion centres should embark upon plasma fractionation programmes. In the interests of economy, high standards of quality and safety, and the satisfactory future general development of the national plasma fractionation units, this type of work should be centralized into perhaps no more than three centres in the United Kingdom. The regional blood transfusion centres should concentrate their efforts on the clinical supervision of the products made available, and provide the fractionation units with *in vivo* recovery data on different batches if required. In collaboration with their clinical