devoted to the human aspects of road research, perhaps through the Medical Research Council, is not merely timely but long overdue.

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¹ Caveness, W F, *Epilepsia*, 1976, **17**, 207.

Sodium valproate in chorea

SIR,—The report by Dr J A R Lenman and others (6 November, p 1107) that no improvement in patients with Huntington's chorea after sodium valproate therapy could be demonstrated implies that gamma-aminobutyric acid (GABA) may not play a role in the pathogenesis of this disease. A more likely explanation is that sodium valproate does not affect brain GABA concentrations to any substantial degree.

The authors state categorically that sodium valproate inhibits GABA transaminase. This point is not established.^{1 2} Doses as high as 400 mg/kg intraperitoneally in mice failed to influence brain GABA concentrations.² Even in those cases in which the brain GABA concentration was found to be elevated rises in brain GABA were small (maximum of 34% increase following 400 mg/kg intraperitoneally³) and short-lasting (return to control values by 180 min³). The clinical doses used by Dr Lenman and his colleagues were fractions of those which equivocally increase brain GABA in mice. Further, no data are presented to verify biochemically any change in brain GABA (for example, increased cerebrospinal fluid GABA).

One can therefore anticipate that correction of the decreased brain GABA concentrations in patients with Huntington's chorea by more potent inhibitors of GABA transaminase will prove efficacious in treatment.

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¹ Harvey, P K P, Bradford, H F, and Davison, A N, *FEBS Letters*, 1975, **52**, 251.

² Anlezark, G, et al, *Biochemical Pharmacology*, 1976, **25**, 413.

³ Simler, S, et al, *Biochemical Pharmacology*, 1973, **22**, 1701.

SIR,—Dr J A R Lenman and his colleagues (6 November, p 1107) administered sodium valproate to patients with Huntington's chorea in the expectation that the resulting increase of brain gamma-aminobutyric acid (GABA) levels would reduce choreiform movements. No benefit was observed.

I wish to report my own experience of sodium valproate in the treatment of six patients with choreiform movements. The first, a patient with Huntington's chorea was

treated with 1200 mg of sodium valproate daily. A great reduction of the chorea was obtained, and this benefit persists after six months' therapy. In view of this striking result five other patients were treated. The clinical details, dosage, and results of treatment are shown in the table below.

It is hard to account for the results. The efficacy of control of the chorea was so good that it seemed to justify further therapeutic trial. Patient 2, who did not benefit was in many respects a very similar case to patient 1, who responded excellently. It seems most unlikely that the small dose of diazepam used in addition to the sodium valproate in the treatment of the first patient would account for the difference as diazepam alone is of no benefit in chorea. Possibly in the other cases there was a difference in the nature of the underlying biochemical complaint. Unfortunately increases in the dosage of sodium valproate were precluded by the development of drowsiness. The predominantly negative results prevent legitimate comment on the relevance or otherwise of GABA transmitter systems in chorea. Clearly the current therapy for chorea, tetrabenzene, remains the first choice of treatment.

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Treatment of idiopathic ascites of haemodialysis

SIR,—I read with interest the report by Dr B F Jones and others (10 April, p 877) of the successful treatment of the idiopathic ascites of haemodialysis by paracentesis followed by instillation of triamcinolone acetonide. This is the first confirmatory communication I have received regarding the usefulness of this treatment. I have not had an opportunity to apply the therapy in our population since our first report¹ because no other patient has developed the complex here since that time. It is of interest to me that the authors used a very small dosage of triamcinolone acetonide (200 mg) with good results. On a purely empirical basis we used much higher dosages (500 mg every 4 h) in the two cases of ascites we reported. We also used a long period of drainage (24-72 h), instilling the triamcinolone through an intermittently clamped drainage catheter until there was no more evidence of recurrent ascites as shown by lack of drainage.

There is no question that catheter drainage and local instillation of triamcinolone acetonide is effective therapy for intractable uraemic pericardial effusion²; however, very few cases of idiopathic ascites of haemodialysis have been treated in this manner. I would be interested to hear of the experience anyone else has had with this treatment in cases of idiopathic ascites of dialysis. I am particularly anxious to know if others are using this procedure, as in

this case report, by the method of a single drainage and instillation.

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¹ Buselmeier, T J, et al, *Proceedings of the Clinical Dialysis and Transplant Forum*, 1975, **5**, 9.

² Buselmeier, T J, et al, *Nephron*, 1976, **16**, 371.

Postcoital contraception

SIR,—It is unfortunate, though understandable, that your leading article on this subject (23 October, p 961) should have made no mention of the legal and ethical problems involved that ought to be faced but are usually avoided.

There is a great difference between contraception (preventing fertilisation of the ovum) and the use of an abortifacient after fertilisation has occurred. In the former situation the ovum and spermatozoa are independent organisms, but in the latter their nature is profoundly changed and they are united as an early pregnancy with quite different potential. The term "postcoital contraception" implies the use of an agent after coitus but before fertilisation has occurred, but is clearly being used for agents that produce a very early abortion.

Apart from the ethics of this practice, which cause concern, it has been pointed out by Tunkel¹ and emphasised more recently by Brewer² that the provisions of section 1 of the 1967 Abortion Act permit an abortion only when two doctors agree that specified conditions exist, and section 5 makes the intent to procure a miscarriage illegal unless section 1 is adhered to. As the use of diethylstilboestrol, ethinyloestradiol, prostaglandins, or their synthetic analogues, intrauterine devices, copper coils, menstrual extraction, and any other postcoital techniques have the intention of procuring an early abortion they would appear to be in contravention of section 58 of the Offences Against the Person Act 1861 unless section 1 of the Abortion Act 1967 has been observed.

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¹ Tunkel, V, *Criminal Law Review*, 1974, August, p 461.

² Brewer, C, *World Medicine*, 1976, **11**, No 17, p 33.

Leprosy in Northern Nigeria

SIR,—I was very surprised to read in "Personal View" (20 November, p 1250) the statement by Professor Harold Scarborough, dean of the faculty of medicine at Ahmadu Bello University, Zaria, Nigeria, that "no one knows the prevalence of leprosy in this part of the world." Ross, who pioneered the outpatient treatment of leprosy with dapsone in Northern Nigeria, carried out numerous surveys throughout the region in the early 1950s. In particular, in the area adjacent to the present medical school he measured the prevalence by population survey in the villages of Igabi and Giwa and found figures of 67 per 1000 and 39 per 1000 respectively. In Zaria Province it was 46 per 1000.¹ In Igabi, after seven years' administration of dapsone, it had declined to 50 per 1000. In 1967 I carried out further surveys in these villages and found that the prevalence had declined to 2 per 1000 and 2.5 per 1000 respectively. The prevalence in Northern Zaria, based on outpatient attendance, was 1.6 per 1000.² The results

Effects of sodium valproate on six patients with choreiform movements

Patient ¹	Age (years)	Diagnosis	Duration of chorea (years)	Daily dosage of sodium valproate	Daily dosage of other drugs	Effect on chorea
1	44	Huntington's chorea	2	1200 mg	Diazepam 15 mg	Virtually abolished
2	54	Huntington's chorea	12	600 mg	—	No benefit
3	61	Hereditary chorea	7	600 mg	—	No benefit
4	67	Arteriosclerosis	2	600 mg	—	No benefit
5	67	Arteriosclerosis	2	600 mg	—	No benefit
6	75	Arteriosclerosis	6/12	600 mg	—	No benefit

showed the beneficial effect of dapsone in preventing the spread of the disease.

I have also been surprised at the decision by the faculty to teach leprosy to medical students in the leprosarium, especially at Garkida, where there is an emphasis on institutional care, reconstructive surgery, and the making of prostheses and where so much time and money are spent on the patients *after* they have become crippled and so little on curing the patients and preventing the spread of the disease. The place to teach leprosy is in the outpatient clinic run by auxiliary staff, and the area around the medical school would be ideal for this purpose. Then it could be demonstrated that the disease can be cured, prevented, and eradicated by the administration of dapsone.

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¹ Ross, C M, in *Leprosy in Theory and Practice*, ed R G Cochrane and T F Davey, p 595. Bristol, Wright, 1964.

² Crawford, C L, *Leprosy Review*, 1969, 40, 159.

Occupational exposure to inhaled anaesthetics

SIR,—I wholeheartedly agree with Dr H T Davenport and his colleagues (20 November, p 1219) that there is "little or no information" on the real exposures of theatre personnel to anaesthetic agents and that studies of "spot concentrations in various parts of the operating suites" make it "extremely difficult if not impossible to evaluate methods of reducing exposure." To overcome the problem they advocate that the subject carries around on himself a continuous personal sampler which can estimate the average exposure of the subject integrated over time.

I would, however, suggest that data provided by this technique indicate only a *possible* health hazard—they do not in fact prove that the subject absorbs such contaminants. Only blood sampling will do this. Furthermore, blood samples in themselves provide "a simple and reliable measure of the average exposure of the person, integrated over time."

In other fields of atmospheric pollution direct sampling of the blood of the exposed subject is now the recommended technique¹ because atmospheric samples can be shown to provide misleading data.² For this reason this laboratory is at present carrying out a study of the blood levels of nitrous oxide in theatre personnel.

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¹ Astrup, P, in *Proceedings of the European Colloquium on Health Effects of Carbon Monoxide Environmental Pollution*, Luxembourg, 1973, p 376. Luxembourg, Office for Official Publications of European Communities, 1974.

² Cole, P V, *Nature*, 1975, 255, 699.

Night cramp

SIR,—The older *National Formularies* had reference to tablets containing one grain (60 mg) of quinine bisulphate. One tablet of this strength taken nightly effectively prevented night cramp for most sufferers.

Our pharmacists now cannot provide these low-dose quinine tablets, the only quinine

tablet in the current *British National Formulary* being quinine bisulphate 300 mg. These stronger tablets are no more effective for cramp but their cost is greater and the risk of causing ototoxicity is proportionately increased (Dr H B Lee, 20 November, p 1259).

As cramp is now the major indication for the use of quinine in Britain my plea is for the reintroduction of the cheaper, safer, and equally effective 60-mg tablet of quinine bisulphate.

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SIR,—The problem of nocturnal cramp recently reappeared in the *BMJ* and, as usual, various drug treatments are recommended (9 October, p 861, and 20 November, p 1259).

According to Rivlin¹ nocturnal cramp can be prevented by raising the foot of the bed about 25 cm (9 in). Surely this is worth a trial. Moreover, if cramp does occur there is a simple physiological method of aborting the attacks by using the reciprocal inhibition reflex. When one muscle group is contracted the antagonist muscles relax. Therefore instruct the patient to contract *actively* the muscles on the other side of the limb. Thus an attack of cramp in the calf is relieved by strong active dorsiflexion of the foot. Admittedly there are other reflexes such as the stretch reflex and the anti-stretch reflex which may be invoked in the treatment of cramp² but my personal experience, confirmed by others,³ is that the reciprocal inhibition reflex works very well.

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¹ Rivlin, S, *Lancet*, 1973, 1, 203.

² Fowler, A W, *Lancet*, 1973, 1, 99.

³ Conchubhair, S W, *Lancet*, 1973, 1, 203.

Measuring blood flow

SIR,—Your leading article (27 November, p 1279) rightly draws attention to the emergence of vascular laboratories in which patients with peripheral arterial disease are studied by non-invasive methods. However, the speculation that "patients will soon be selected for reconstructive arterial surgery on the basis of routine ultrasound investigations alone" grossly understates the importance of clinical and arteriographic assessment and gives a misleading impression of research objectives in this field.

Arteriography, particularly using biplanar views, is an effective, widely used, and relatively safe method by which the extent of disease and suitability for operation may be defined. Clinicians will justly regard with reserve the suggestion that prereconstruction arteriography is to be replaced by ultrasound examinations.

Non-invasive tests complement rather than replace arteriography in that they can help to (1) distinguish the symptoms of vascular insufficiency from those of neurological and orthopaedic conditions in patients with leg and foot pain, (2) monitor the function of arterial grafts intraoperatively and in the recovery room (particularly in patients undergoing aortoiliac reconstruction in the presence of a superficial femoral artery occlusion), (3) provide

an objective index of vascularity in outpatients under observation, and (4) predict the likelihood of successful healing of a below-knee amputation. It would surely have been more appropriate to illustrate the clinical contribution of ultrasound measurements of pulsatile blood flow in these areas than to imply that ultrasound is to replace the present concept that clinical assessment of the patient and clinical indications for operation are of paramount importance.

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Allergic reaction to chlormethiazole

SIR,—Dr A A Khan (6 November, p 1105) was interested to know whether other cases of allergic reaction to chlormethiazole (Heminev-rin) have been noted.

A man aged 56 was given, outside hospital, chlormethiazole, three capsules daily, as treatment for alcoholism and promptly developed an itchy rash. He continued to drink heavily and so 14 days later was admitted to an addiction unit. On admission he had a faint, pruritic, raised, blotchy rash on the buttocks and thighs. Chlormethiazole dosage was raised to six capsules daily and then tapered to zero over the following week. Twelve hours after the start of the higher dose schedule the rash became more florid and extended to the lower trunk. The patient was not distressed and during reduction of dosage the rash faded.

Pruritus is a common though relatively untroublesome side effect of chlormethiazole but this is the only instance of allergic rash encountered among approximately 2000 patients who have received the drug in the unit. It is worth noting that until admission this patient was taking two sedative and dependency drugs: alcohol and chlormethiazole. The latter should be prescribed to alcoholics only in a short course under close supervision for the purpose of suppressing alcohol withdrawal symptoms.

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Perchloroethylene intoxication

SIR,—The inhalation of perchloroethylene, a volatile solvent much used in industry, may induce transient mental changes. Despite its characteristic odour, familiar in dry-cleaning shops, these cerebral effects are seldom reported. It would seem likely that they are often missed. I should like to record an example of this form of intoxication in a 62-year-old chemical plant worker.

Although he was well known as a sober sort of chap, the factory nurse thought that he must be "drunk." All the same she sent him to hospital. Here suspicion was aroused by the chemical smell from his clothing. Tests for alcohol were negative. Within six hours he had recovered, still unaware of what had happened to him. The plant manager insisted that there had been no working hazard. Later, however, it was found that the perchloroethylene content of the air in which the man had been working was 500 ppm, a significant concentration since similar symptoms have been described at 200 ppm.¹