28% oxygen, her PaO_2 was 20.22 kPa and PaCO_2 4.5 kPa. Prior to her return to the ward she was started on aminophylline suppositories 360 mg twice daily, prednisolone 20 mg twice daily, salbutamol, and becotide inhalers. Three days later she had three grand mal seizures within one hour, commencing on the right side of her body. Intravenous diazepam (10 mg) given after the first seizure did not prevent the two further attacks. Treatment with aminophylline suppositories was stopped and no further fits occurred. An electroencephalogram on the following day was normal.

In children, convulsions have followed the rectal administration of aminophylline,¹ but this effect has rarely been described in adults. Absorption from suppositories is unpredictable.² In adults convulsions have occurred following intravenous administration.³ The patient described above was given 720 mg/day = 0.8 mg aminophylline/kg/h for three days. It has been recommended that adults with severe asthma should be given no more than 1 g/day of aminophylline intravenously,⁴ or no more than 0.9 mg/kg/h.⁵ This case illustrates the danger of aminophylline suppositories and prolonged treatment at high doses. We suggest that this drug should be prescribed by weight at specified intervals rather than in terms of the number of tablets or suppositories, particularly in small adults.

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¹ Bacal, H L, *et al*, *Canadian Medical Association Journal*, 1959, **80**, 6.

² Martindale, *The Extra Pharmacopoeia*, 27th edn, ed A Wade, p 279. London, the Pharmaceutical Press, 1977.

³ Zwillich, C W, *et al*, *Annals of Internal Medicine*, 1975, **82**, 784.

⁴ *British Medical Journal*, 1975, **4**, 65.

⁵ Mitenko, P A, and Ogilvie, R I, *New England Journal of Medicine*, 1973, **289**, 600.

Management of maternal phenylketonuria

SIR,—In a recent article Dr G M Komrower and others (26 May, p 1383) report their experiences with phenylketonuria in pregnancy and quote a case of ours.¹ Unfortunately in his table III, owing possibly to a transcription error, the final IQ of our patient's child was given as 65. This child's latest IQ, at the age of 9 in 1976, was: WISC verbal 86; performance 90; full scale 87.

The IQ figure in the last column should therefore read 87. This is of some importance in supporting the conclusion of Dr Komrower's article that a low-phenylalanine diet provides some protection to the fetus in maternal phenylketonuria.

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¹ Arthur, L J H, and Hulme, J D, *Pediatrics*, 1970, **46**, 235.

Pressure in cuffed tubes

SIR,—Dr T H S Burns (21 July, p 212) is quite correct in drawing attention to the rise in pressure if the cuff is inflated with air when nitrous oxide is the anaesthetic used. This is due to permeation of the cuff membrane by the nitrous oxide. The rate of permeation depends on a variety of factors—for example, the nature of the respective gases, their partial

pressure, the thickness of the membrane, and the nature of the membrane. The last factor is by far the most important, and it has been found that plasticised polyvinyl chloride (the material used in Portex tubes) has a very much lower permeability coefficient than either natural rubber or silicone rubber, the other materials commonly used.

For maximum safety, however, it is nevertheless advisable to inflate the cuffs with the anaesthetic mixture and not air, to inflate only to the minimum pressure needed, to use release valves, and to release at least every hour any excess build-up of pressure that may have occurred.

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Management of self-poisoned patients

SIR,—Drs D R Blake and M G Bramble (30 June, p 1763) raise the question of whether self-poisoning patients need to be admitted to hospital to await psychiatric assessment. Dr E J Salter (21 July, p 205) is right in assuming that in some parts of the country the number of patients being discharged either from casualty or before psychiatric assessment takes place is larger than in the Newcastle survey (13.5%).

I recently surveyed patients falling into this category at a local general hospital over a six-month period. One-hundred and eighty-one patients were involved in 193 self-poisoning episodes, of which 71 (39%) patients were not seen by a psychiatrist, 55 (30%) of these not being admitted from the casualty department. A search of hospital records in psychiatric hospitals serving the general hospital plus continual recording of self-poisoning episodes revealed that, of those patients not seen by a psychiatrist, 14 were already known to the psychiatric services, though half of these had come into contact only because of previous overdoses. In a four-month period following self-poisoning, two patients were seen following subsequent overdoses—a 15-year-old girl, who was referred to child guidance, and a 61-year-old woman with depression secondary to hypocalcaemia. There was also one patient who was referred following a medical admission for psychogenic vomiting with hypokalaemia. Three patients were admitted as psychiatric inpatients within one month of their overdose, two being diagnosed as having personality disorders and one as a depressed alcoholic. Two further patients were referred by their general practitioners for psychiatric assessment because of worries about further overdosing. In all, 11% of the patients discharged home were seen by a psychiatrist subsequently, with continuing psychiatric contact in the majority of cases.

Although no patients appeared to have committed suicide (from a search of coroners' records) as a result of discharge before psychiatric assessment, this superficial survey of records suggests a high rate of psychiatric morbidity in these patients. I would seriously question the ability of overworked casualty officers or medical staff to make adequate assessments of these patients in a busy casualty department, where the patients may still be under the influence of the drugs that they have taken. There are obviously many hospitals like the one described above where shortage of

acute beds and lack of immediate psychiatric assessment mean many patients are sent home without adequate assessment. Written guidelines and discussion of self-poisoning assessments with psychiatric staff would help those staff who have to make the decision about whether a patient should be sent home. Provision of personnel with expertise in assessing these patients might be one way of reducing medical admission without unnecessary risk to the patients concerned.

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Diverticular disease in Kenyan Africans

SIR,—I am interested in the comments by the Reverend H C Trowell and Mr D P Burkitt (30 June, p 1795) on my article on diverticular disease in Kenyan Africans (2 June, p 1465). The heading of their letter is, I feel, misleading as diverticular disease occurs not only in urban but also in rural Kenyan Africans. The Kenyatta National Hospital is the major referral hospital for the whole country and the fact that the patients were examined there does not mean that they lived in Nairobi. As the series was a retrospective radiological one and much of the clinical information was not available, I was unable to differentiate the patients according to their place of residence or social class. In Nairobi, however, most Africans in the upper social classes attend one of the private hospitals and the Kenyatta National Hospital deals largely with the lower income groups. It should also be noted that in the article by Archampong *et al*¹ that Dr Trowell and Mr Burkitt mention in their letter the patients with diverticular disease, though mainly upper class, had all lived on traditional African high-residue food. The authors concluded that other factors may contribute to the pathogenesis of the disorder.

I agree that quantitative data and dietary surveys are needed. I have just completed such a survey and hope to publish the results in the near future.

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¹ Archampong, F Q, Christian, F, and Badoe, E A, *Annals of the Royal College of Surgeons of England*, 1979, **60**, 464.

SIR,—Dr John F Calder has reported an unusually high incidence of diverticular disease of the colon for Africans (2 June, p 1465). If others have not found this, it is not necessarily from lack of looking. During a 17-month period (1972-3) at Mulago Hospital, Kampala, I found only one patient with diverticular disease, and he had only one diverticulum.

A 40-year-old Ugandan official was referred for barium enema. He gave a six-month history of left iliac fossa pain and intermittent blood in his stools. Stool examination was negative. A single sigmoid diverticulum was seen, associated with localised narrowing and a "saw-tooth" mucosal pattern. A noteworthy feature of barium enema examination in Ugandan patients was the very large capacity of the colon. Two litres of contrast could be introduced without filling of the caecum. Over-

lapping of sigmoid and other bowel loops often made interpretation difficult. This patient was remarkable for the relatively small size of his colon.

Dr Calder indicates that the rural Kenyan is less likely to undergo barium enema investigation. One need not conclude that the elderly countryfolk suffer from undiagnosed diverticular disease. It may be that the urban Kenyan's diet and way of life are more Western than is apparent, and that the diverticular disease observed is consequential on a changed life-style.

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Amyl nitrite as a sexual stimulant

SIR,—I was interested in your expert's reply to the question about amyl nitrite as a sexual stimulant (14 July, p 117). As a venereologist practising in London from 1969 to 1975 I saw many male homosexuals who admitted to the use of amyl nitrite ("poppers") in sex play. It tended to be used by the more sophisticated members of that group, especially those into the "leather scene." Some stated that orgasm was not so good if amyl nitrite was not used. It was also inhaled by the recipient in the practice of inserting the clenched fist into the recipient's rectum (fist fucking)—presumably the sphincter relaxing at the time of inhalation.

Several pharmacies in London sold amyl nitrite vitellae BPC freely to members of the public without prescription at the time. I understand that since about 1976 this has no longer been allowed. Certainly, practising in Yorkshire one hears very little of this use of a volatile nitrite being used as a social drug. However, as Cohen mentioned,¹ the practice of some "adult bookshops" aimed at homosexuals in the London area persists, where "street" varieties of amyl nitrite are sold very profitably to clients.

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¹ Cohen, S, *Journal of the American Medical Association*, 1979, 242, 2077.

Tuberculosis

SIR,—I read Dr Neville Oswald's article on tuberculosis ("In My Own Time," 21 July, p 188) with much nostalgia.

Although never attaining his eminence or indeed ever being on the staff of the Brompton I did also work with all forms of tuberculosis in outlying sanatoria and clinics for 30 years from 1930 onwards. How well one recalls the struggle of those early days—the persuading of patients to accept months of complete bed rest, including the children with bone and joint disease, who had to bear with various forms of plaster or, even worse, the total immobility of being strapped to a Robert Jones frame. Despite this came the problem of infected sinuses, followed all too often by the invariably fatal amyloid disease. Then back to the pulmonary cases with the induction of artificial pneumothorax or pneumoperitoneum and the difficulties of torn adhesions, plural effusions, and empyemas. I well remember, as does Dr Oswald, the large refill clinics with the weekly or fortnightly x-ray screening of patients before the refill.

How much radiation, I wonder, did those patients (and ourselves) absorb?

And so on to 1950 and the excitement of the arrival of streptomycin, to be allayed all too soon by the bitter disappointment of finding that by itself it rapidly produced bacillary resistance—this excitement to be renewed about a year later by the discovery of two further drugs, para-aminosalicylic acid, and isoniazid and the almost miraculous coincidence of the fact that when given separately resistance occurred, but when given together or with streptomycin this did not occur. And so the happy 10 years from 1950 onwards when we learnt how to use these new drugs and so cure many early cases or to render many of the older, chronic cases fit for curative surgery—for example, limited thoracoplasty or localised excisions which had not previously been possible.

It is surely not too much to call this the conquest of tuberculosis and it is surprising that the public at large and even the profession itself does not seem to have realised the vast importance of the change that occurred—I feel privileged to have been able to play even a small part in it.

Finally, the one important lesson to come from this story, which was never more true than in the management of tuberculosis, is that in medicine one is never simply treating a disease—one is treating a person suffering from that disease and this is by no means the same thing.

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The "Radcliffe" hospitals, Oxford

SIR,—Mr Malcolm H Gough is to be congratulated for his historical review of the Radcliffe Hospitals (7 July, p 33). His assertion that few would leave the old Radcliffe Infirmary without a sense of regret is not echoed by myself and other junior doctors, who leave with an immense sense of relief. It is sad that such a famous institution should have become the most inefficient and uncaring, with appalling facilities for staff and patients, severely deficient pathological services, and understaffing of the telephone exchange (GPs regularly took over an hour to get the switchboard to answer). Staff accommodation, which in my case probably contravened both public health and fire regulations at the old hospital, is excellent in the new one, and urgent blood tests are possible too.

It is most heartening to hear a senior consultant such as Mr Gough concerned about the absence of a residents' mess in the new John Radcliffe Hospital. Although it is easy to blame the incompetence and ignorance of administrators (which are rife), doctors themselves must take their share of responsibility for the decline in standards to a disgraceful level at old hospitals, such as the Radcliffe Infirmary, and the inadequate provision in new ones. It is a question not just of financial resources but of priorities, which all grades of medical staff must reiterate incessantly to preserve the standards of patient care and staff provision which are essential. Every hospital doctor in this country should read Jurg Schifferli's Personal View (16 June, p 1623), in which he comments about the strike of porters and catering staff: "What amazes me is how people react. They think it is a pity but no one protests, no one ex-

postulates or demonstrates his or her annoyance."

Sir James Cameron was reported (30 June, p 1803) as saying that the BMA's reputation "rested largely on the respect built up in the public's mind by the thousands of doctors who quietly practised their profession irrespective of the problems of the day." Sir, there comes a point when to practise quietly serves the interests of patients and profession less than to protest loudly. Some of us consider that that point has been passed, and deplore the apathy and disinterest which our colleagues show in the working of our health services.

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Motor neurone disease associated with bronchial carcinoma?

SIR,—In their case report of a syndrome indistinguishable from motor neurone disease (21 July, p 176) Drs D M Mitchell and S A Olczak base much of their case on the pattern of electrophysiological abnormality. However, this was far from typical of motor neurone disease.

Firstly, motor conduction velocity was normal in their case but it is usually possible to demonstrate a differential slowing of motor as opposed to sensory conduction. Secondly, in motor neurone disease it is usual to find fasciculation potentials and discrete motor unit activity on voluntary contraction. Thirdly, although prolonged polyphasic potentials can be an indication of reinnervation,¹ polyphasic potentials are more common in myopathies. In motor neurone disease giant motor units of 10-15 mV can occur. None were seen in the case reported.

One must consider their case as not proved on electromyographic grounds. They may have witnessed the reversal of another carcinomatous neuromyopathy.

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¹ Buchthal, F, *Acta Neurologica Scandinavica*, 1970, 43, suppl p 129.

SIR,—The association of motor neurone disease with carcinoma remains the subject of considerable controversy. The short report by Drs D M Mitchell and S A Olczak (21 July, p 176), suggesting a causal relationship between carcinoma of the bronchus and a neurological syndrome indistinguishable from motor neurone disease in one of their patients, prompts us to raise some of the problems of making such an association and to describe one of our own cases in which, we believe, that association exists.

The first difficulty is to verify the diagnosis of motor neurone disease. The clinical picture should be complemented by neurophysiological and neuropathological evidence to make the diagnosis as certain as possible. Thus a picture of progressive onset of combined upper and lower motor neurone weakness without sensory loss should be confirmed by the following objective findings. (1) An electromyographical demonstration of lower motor neurone denervation, the surviving motor units being of long duration and very large in amplitude. "Malignant fasciculation" may be