"Chronic bronchitis" is shorthand for a disease complex which changes as the individual ages. It may be largely asthmatic in childhood and adolescence, quiescent in early adult life apart from exercise-induced asthma and distended lung fields on x-ray, then with a period of both spasm and recurrent infection in middle life, and finally with varying symptoms of chronic respiratory insufficiency. The blue bloater and pink puffer are only different ends of the same spectrum, presumably related to the individual's tolerance of carbon dioxide retention. The amount of clinical or radiological emphysema may be very small, and it would be more rational to label such cases "chronic restrictive lung disease" rather than "chronic obstructive airways disease" when fibrosis is severe.

If medical students could think of bronchitis along such lines, more effort might be devoted to controlling infection in middle life, and less to the futile use of steroids and bronchodilators when the lung has become a bag of scar tissue.

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Antibiotics in respiratory infections

SIR,—There are certain statements in Dr I Gregg's article dealing with antibiotics in respiratory infection (Intake No 50, published by Abbot Laboratories Ltd, insert in *BMJ*, 9 July) which we feel require comment.

(1) "*Almost* (our italics) all strains of *Streptococcus pyogenes* have remained sensitive to penicillin." To our knowledge resistance to penicillin in this species has *never* been reported.

(2) The suggestion that ampicillin is more effective than benzylpenicillin against most strains of *Staphylococcus aureus* implies that ampicillin is active against penicillin-resistant strains of this organism. Resistance to penicillin in *Staph aureus* is dependent upon the production of β -lactamase, which is equally active against ampicillin, the use of which therefore could not possibly be indicated in the treatment of infections due to such strains.

(3) The suggestion that amoxycillin seems to be superior to ampicillin in the treatment of exacerbations of chronic bronchitis because of its ability to penetrate into bronchial secretions has never been put to the test in a controlled clinical trial and must therefore be regarded as conjectural.

(4) The author surely does not think that *Strep pyogenes* and *Staph aureus* are the commonest causes of bacterial pneumonia.

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Stability of measles vaccine

SIR,—Drs M D Coulter and B M Jones (9 July p 120) question the stability of measles vaccine and its distribution through the post. As part of the MRC Measles Vaccine Trial 1964 the stability of the vaccine in field conditions was investigated by this institute. Samples of vaccine used in clinics were returned to us in the post at the end of each

session. Vaccine was received from the 32 areas throughout England and Wales. Of the 45 samples tested, only one vial had a serious loss of potency. Samples "lost in the post" and "left out of the refrigerator" still retained adequate potency to stimulate immunity. However, vaccine does lose potency if not properly handled and we would like to join with Professor J A Dudgeon (2 July p 44) and Dr J K Anand (11 June p 1533) in stressing the importance of complying with the instructions issued by the manufacturer.

Drs Coulter and Jones quote Dr Christine L Miller (11 June p 1532) as saying "10% of vaccinated children have lost immunity 12 years later." I would not make this deduction from any of Dr Miller's statements. The protection rates reported for the trial ranged from 84% to 95% throughout the first five years.¹ If 90% of vaccinated children are still protected after 12 years it would indicate that the initial protection has been well maintained.

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Standards and Control,
London NW3¹ Measles Vaccine Committee of the Medical Research
Council, *Practitioner*, 1971, **206**, 458.

ECT on television

SIR,—It seems that once again we have been subjected by the media to a biased piece of viewing, part of the ever-popular establishment knocking game in which professional expertise is denigrated. I refer to the "Panorama" programme of 18 July on electric convulsion therapy (ECT), an eminently safe and very widely used procedure which has saved countless lives (since depression, the treatment of which is its main function, is the chief cause of suicide). Of the countless grateful sufferers all over the world whose illness has been alleviated by ECT what were we shown? One woman with, I suspect, a long-standing neurosis who blamed her poor concentration (a common symptom of such an illness) on one course of ECT some years before—a youth who had suffered from an acute psychotic breakdown after taking LSD and had been effectively treated by ECT but complained that he hadn't signed a consent form.

Sensible people must surely realise that well-trained professionals are not going to continue administering a treatment for many years if it does not work. What would be the point? What a pity the BBC producer could not realise the same—but perhaps that would not have been so newsworthy. One could cite the same argument against appendicectomy—that not everyone does well afterwards and some have the operation unnecessarily. The example of psychiatrists' "foolishness" cited in the programme—that insulin coma therapy had now been discontinued despite its claim that it had been useful over many years—showed the lack of understanding of the subject very clearly. Insulin coma therapy was indeed effective but somewhat hazardous, and was replaced eventually by electroplexy for the very reason that the latter proved to be safer and more effective.

The Society of Clinical Psychiatrists is shortly to publish a report on "Public Relations in Psychiatry." As chairman of the study group which produced this report I have frequently been appalled by the way the mass media are able to present such biased pro-

grammes and are allowed to get away with it. Just who does advise them? We are strongly advocating the setting up of a public relations officer for psychiatry who can give official guidance and rebuttals where necessary to such bodies, but perhaps to hope that such advice would be heeded is vain.

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Diagnosing familial hypercholesterolaemia in childhood

SIR,—Dr D J Betteridge and his colleagues draw attention (9 July, p 127) to their paper¹ on the regulation of 3-hydroxy-3-methylglutaryl coenzyme-A reductase (HMG CoA reductase) activity in type II hyperlipoproteinaemia. We were aware of the article, which reports on measurement of the enzyme activity in fresh leucocytes from first- and second-degree relatives of an index patient with familial hypercholesterolaemia (FH), but we consider that their data failed to support the hypothesis that the diagnosis of FH can be made by measurement of HMG CoA reductase activity in the system they used.

This hypothesis can be tested only by identifying affected individuals by independent criteria. In the family studied there were no obligate heterozygotes, but the index patient and his brother (II₆), having tendinous xanthomata and hypercholesterolaemia, had a very high probability of being affected. In the remaining live members of the family serum cholesterol concentration was the only independent criterion available. The sister (II₄) had a serum cholesterol (8.58 mmol/l (331 mg/100 ml)) elevated more than two standard deviations above the expected mean for her age and therefore had a high probability of being affected. Only one of the offspring (III₁₁) of the probable heterozygotes tested (III₆, 7, 8, 9, 10, and 11) had a serum cholesterol above the upper limit quoted by the authors (5.9 mmol/l (228 mg/100 ml)).

In order to test the association of FH with HMG CoA reductase activity and to determine the discriminating power of the test it is essential to examine only the first-degree relatives of known heterozygotes all of whom have the same 1 in 2 chance of carrying the mutant gene. Thus of the individuals likely to be affected three (II₇ and 5 and III₁₁) had incomplete suppression and one (II₄) had normal enzyme regulation. Of the first-degree relatives of heterozygotes likely to be unaffected (II₃, I₁, II₆, 7, 8, 9, and 10) four had normal enzyme regulation (I₁, II₃, III₅ and 6) and three had incomplete suppression (III₆, 9, and 10). Only in the index patient and his relatives II₅ and III₁₁ were the cholesterol level and enzyme activity concordant in indicating a heterozygote. There appears to be no more than a chance association between the enzyme activity and cholesterol levels in this family.

Dr Betteridge and his colleagues mention in their letter that they have recently found discordance between HMG CoA enzyme activity and serum cholesterol levels in a man heterozygous for FH and suggest that this could be explained by heterogeneity of the mutant gene causing FH. This explanation cannot be used to explain the discordance in

the family they report since all heterozygotes will carry the same mutant gene.

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¹ Betteridge, D J, Higgins, M J P, and Galton, D J,
British Medical Journal, 1975, 4, 500.

More compassion needed

SIR,—Regarding Dr R M Whittington's article on dextropropoxyphene overdosage (16 July, p 172) we had a tragic incident in our family when our daughter was found dead within a period of 2½ hours after ingestion of some 50 Distalgic tablets, source unknown. The post-mortem findings showed collapse at the bases of both lungs. She was found with her hand on the receiver of the telephone, suggesting some sudden distress. This ingestion was possibly a *cri de coeur* following refusal of the staff of a psychiatric teaching hospital to see her, an application she often made. Indeed, after a termination of pregnancy in January all they would offer her was a fortnightly hour with the community nurse, although this was increased when her behaviour improved.

I am writing this because behind so many poisonings lies mental instability of one kind or another, cause usually unknown. Treatment even in this day and age is often sophisticatedly cruel—indeed, if the case is deemed incurable the patient is often pushed back on to the general practitioner, who may or may not be sympathetic but is always busy. Community care is often only of a voluntary type. In this case a local church is trying to help these people but finding little help and support from the psychiatric hospital.

When choosing medical students it should be born in mind that all doctors, be they consultants or general practitioners, need the quality of compassion as much as three As at A level and that we shall all be incurable one day and shall be at their mercy.

MARY LEVINSON

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Tryptophan and rheumatic diseases

SIR,—In "Any Questions" recently (18 June, p 1590) your expert pointed out that there is no published evidence to suggest that L-tryptophan has an antirheumatic effect. However, it should be noted that almost all antirheumatic drugs possess the common property of displacing L-tryptophan from serum protein binding sites, thus increasing the plasma levels of the free amino-acid.¹⁻³ It is still not clear how, if at all, this displacement and the increased availability of free L-tryptophan are related to the antirheumatic

effect of these drugs. Some workers¹ suggest that the freeing of other substances, especially short-chain peptides, may be of greater significance.

Interestingly, those antirheumatic drugs which do free L-tryptophan from serum proteins appear to possess some antidepressive effect. At least one group of workers⁴ has demonstrated an inverse relationship between the level of free tryptophan in patients treated with three different antirheumatic drugs and their depressive scores on the Hamilton Rating Scale.

We have used L-tryptophan extensively as an antidepressant, and in the course of treating a large number of patients have inevitably used the amino-acid in some persons with rheumatoid arthritis. A few of these have shown a dramatic lessening of rheumatoid symptoms associated with a fall in the erythrocyte sedimentation rate. Subsequent discontinuation of the L-tryptophan in several of these cases has been followed by an increase in joint pain. It would be quite wrong to draw specific conclusions from clinical impressions in such small numbers of patients, but it may be considered desirable that formal clinical testing of the effect of L-tryptophan in rheumatoid arthritis should be undertaken.

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¹ McArthur, J N, et al, *British Medical Journal*, 1971, 2, 677.

² Smith, M J H, Dawkins, P D, and McArthur, J N, *Journal of Pharmacy and Pharmacology*, 1971, 23, 451.

³ Smith, H G, and Lakatos, C, *Journal of Pharmacy and Pharmacology*, 1971, 23, 180.

⁴ Aylward, M, and Maddock, J, *Lancet*, 1973, 1, 936.

Shortage of anaesthetists

SIR,—Over the past five years I have been the surgeon attached to a large regional health centre in Stockholm with its base hospital (Karolinska Sjukhus) some five miles (8 km) away. During this time I have performed many operations as outpatient procedures using only the various methods of local anaesthesia. The accompanying table is not a comprehensive list, but rather to give some idea of what can be done.

It seems that the time has come for British surgeons to attempt to break some of the bands that bind them to their anaesthetists. A return to old-fashioned and outdated practices is not suggested but rather that more interest be taken in the modern forms of local anaesthesia which, although widely practised in Scandinavia, seem to have been largely ignored (or suppressed) by their British colleagues.

No special equipment is required; in recommended doses the drugs are perfectly safe, the technique is easily learnt, and the costs are low. Simple tourniquets, a sphygmomanometer, and a variety of syringes and needles are all that is required. The anaesthetic agent I use is prilocaine hydrochloride in concentrations of ½% and 1% both with and without adrenaline. The methods most applicable and readily learnt are:

(1) Local infiltration with ½% solution—this is already widely used and needs no further discussion.

(2) Local nerve or plexus blocks—these can be accomplished with 1% prilocaine, though I invariably use ½% with equally good results and avoid local motor blockade. The method allows

Outpatient surgery under local anaesthesia

Operation	No performed
Varicose vein surgery	422
Removal of joint or tendon ganglion	132
Extirpation of Dupuytren's contracture	47
Tendon sheath splitting	64
Peripheral neurolysis	20
Circumcision	49
Cystourethrosopy (males)	34
Removal of hydrocoele/spermatocele	8
Extirpation of sacral pilonidal sinus	22
Herniorrhaphy	34
Extirpation of axillary sweat glands	28
Reposition of wrist fracture	26
Removal of exostoses	44
Extirpation of larger subcutaneous tumours	83
Vasoresection (allowed only since 1976)	28

2 h of surgery to an isolated limb with or without a bloodless field and is also suitable for groin (hernia) and genital operations. Each type of block is excellently described in Eriksson's *Illustrated Handbook of Local Anaesthesia*.¹

(3) Regional intravenous anaesthesia gives the operator about 20 min and is, for example, suitable for reduction of fracture of the wrist. The technique is also described in Eriksson's handbook.

(4) Finally, topical anaesthesia, which, although widely used for oral surgery, is perhaps underestimated for use in other mucosal areas. The urethra is easily anaesthetised after about 10 min contact with a local anaesthetic gel and will allow painless endoscopic examination of the urethra and urinary bladder even in males.

I have seen thyroidectomies and laminectomies performed under local anaesthesia in Sweden, but do not advocate a total redundancy of anaesthetists. Many procedures can, however, be performed with advantage using the above methods. I prefer my patients to have fasted, but this is not essential in acute situations. Nervous patients can be given 10 mg diazepam intravenously before starting the operation. Before embarking on outpatient surgery agreement with a nearby hospital is obligatory so that rapid admission can be obtained if necessary. Only one of my patients has required acute admission to the Karolinska after surgery and that was a 75-year-old man who developed a clot retention after cystoscopy. Three others have needed overnight observation, one after excision of a pilonidal sinus and one after a vasectomy because of bleeding, while a third patient developed abdominal cramps after an inguinal herniorrhaphy.

British surgeons have too long been pampered and protected by a readily available corps of the best-trained anaesthetists in the world. My advice is to stop belly-aching and be practical. Learn the basic principles of local anaesthesia and, by doing it yourself, allow the highly skilled anaesthetists to employ their talents where most required.

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¹ Eriksson, E, (ed), *Illustrated Handbook of Local Anaesthesia*. Copenhagen, Munksgaard, 1969.

Diagnosis in cases of haematuria

SIR,—Mr A G Turner and his colleagues (2 July, p 29), describing a diagnostic service for haematuria, have understandably concentrated on the yield of unsuspected carcinoma. They have, however, failed to mention the possibility of a glomerular site for haematuria despite the fact that over 10% of their cases remained undiagnosed.

We have previously reported¹ cases illustrating the importance of renal biopsy as a diagnostic tool in those cases of haematuria