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Because we receive many more letters than we have room to publish we may shorten those that we do publish to allow readers as wide a selection as possible. In particular, when we receive several letters on the same topic we reserve the right to abridge individual letters.

Letters critical of a paper may be sent to the authors of the paper so that their reply may appear in the same issue. We may also forward letters that we decide not to publish to the authors of the paper on which they comment.

Letters should not exceed 400 words and should be typed double spaced and signed by all authors, who should include their main degree.

Treating drug misuse

SIR,—As the father of a heroin addict who has experienced, like many others, the appalling deficiencies in the present system of drug abuse treatment, I greatly welcome the guidelines of good clinical practice in the treatment of drug misuse¹ (10 November, p 1317). Yet if we are to achieve a realistic improvement in the treatment and rehabilitation of drug misusers, certain factors need to be considered with great urgency.

Facilities for the treatment of drug misusers are non-existent in many areas of the United Kingdom. Few doctors either in hospital or in general practice want to treat drug abusers, nor do they have the knowledge and training necessary to undertake the demanding work of treating addicts. Most areas do not have the important non-medical skills available to reintegrate the drug abuser into society.

The guidelines appear to emphasise the importance of detoxification rather than the more important phase of treatment—namely, counselling and psychotherapy. Many an addict, like my daughter, goes through the present system of detoxification only to revert to the drug scene—largely because of the lack of expert counselling being provided *pari passu* with detoxification. What a tragedy for the addict and his or her family, and what a waste of precious time and money. Since 1968 drug dependency units have formed the main statutory treatment facility. Most are centred in or around London attached to psychiatric hospitals. Most have long waiting times for outpatient and inpatient appointments. Many addicts do not consider themselves to have a mental illness and are often reluctant to seek help from these centres; perhaps in part this explains the reason why

fewer than half the addicts who do seek treatment do so at a drug dependency unit. The fact that less than 10% of all drug abusers get any form of treatment is disturbing and surely must bring into question the relevance of our existing drug abuse treatment philosophy to the present generation of drug abusers. In his book *The Heroin Solution* Trebach states, "The experts in drug prevention and treatment are widely divided on virtually all the major issues involved and . . . the more closely one looks at the English experience, the more difficult it is to discover what the British system is, or whether there is a system at all."

The guidelines of good clinical practice would be of even greater value if combined with the realistic political action necessary to ensure that all health authorities had the facilities and staff required to carry out this treatment. Many drug dependency units adopt a rigid and inflexible philosophy of treatment, being unwilling to vary the type or method of treatment according to the needs of the individual addict and unwilling to consider "injectables" for physical and psychological drug dependency. Seventy four per cent of addicts first notified in 1981 were addicted to heroin in the first place: this drug should have an important part to play in treatment. For many within the therapeutic establishment the suggestion that heroin could have a major role in treatment is hailed as scandalous, yet this unrealistic attitude continues to complicate the mystique of heroin, to the advantage of no one save the criminal organisations who are so deeply implicated in this destructive illness and social problem. For many of us the tragedy of

heroin addiction under the present system lies in the inevitable involvement of a loved one in crime with a drug adulterated with substances at times more lethal than the drug itself.

We need the guidelines but we also need both the government and the clinics to encourage and give support to those doctors working in general and private practice who wish to assume a greater responsibility for the treatment and management of drug abuse.

If we accept the approximate figure of 40 000 people dependent on drugs in Britain, with the numbers rising annually at an alarming rate, we need the help of every medical and non-medical person who shows an interest in this problem. "Our liberties, our culture, and our democratic civilisation depend upon our youth, and their resolve, abilities, and spirit must not be eroded by drugs." (Captain George L. Negron, US Navy).

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¹ Medical Working Group on Drug Dependence. *Good clinical practice in the treatment of drug misuse*. London: DHSS, 1984.

Failure of single dose amoxycillin as prophylaxis against endocarditis

SIR,—The case reports on failed antibiotic prophylaxis (1 December, p 1499) would have been better published as Lesson of the Week, as the real point is surely not that antibiotic prophylaxis for patients at risk of infective endocarditis occasionally fails—a

recent comprehensive survey reported six such cases, one in which amoxycillin was used¹—but that the mortality from untreated bacterial endocarditis remains 100%.

Bayliss *et al* emphasise that alcoholics are at particular risk of endocarditis and hence the patient reported had three major risk factors: dental sepsis-surgery, valvular heart disease, and alcoholism. The history and clinical findings strongly suggested endocarditis with increasing heart failure, leucocytosis, haemolysis, and a high erythrocyte sedimentation rate and clearly the diagnosis was considered more than once. Echocardiography, preferably two dimensional, may well have aided the diagnosis; even if this had been unhelpful, 10% of 548 cases in a recent series had persistently negative blood cultures,² and treatment with penicillin and gentamicin is recommended in such cases.³

Whether the case presented shows failure of amoxycillin prophylaxis as suggested is difficult to assess as the incubation period after dental procedures can be up to three months,⁴ and, furthermore, poor dental hygiene alone was responsible for 8.8% of cases in the above series compared with dental surgery, which was implicated in 13.6% of cases,¹ and one can imagine that continued dental sepsis in this alcoholic man could provide plenty of opportunity for bacteraemia in the weeks after his initial dental clearance and long after his single antibiotic dose. Furthermore, a dental cause may not be the most likely source of infection as 80% of cases of endocarditis after dental sepsis or surgery are caused by *Streptococcus viridians*¹ and none of the nine cases of *Str milleri* endocarditis in the series of 548 could be linked to a dental source.²

Treatment of streptococcal endocarditis reduces the mortality from 100% to 6%,¹ and, although six weeks of antibiotic therapy may seem inconvenient without a diagnosis confirmed by blood culture, it is eminently preferable to six months of deteriorating health ending in death.

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- 1 Bayliss R, Clarke C, Oakley C, Somerville W, Whitfield AGW. The teeth and infective endocarditis. *Br Heart J* 1983;50:506-12.
- 2 Bayliss R, Clarke C, Oakley CM, Somerville W, Whitfield AGW, Young SEJ. The microbiology and pathogenesis of infective endocarditis. *Br Heart J* 1983;50:513-9.
- 3 Anonymous. Infective endocarditis [Editorial]. *Lancet* 1984;i:603-4.
- 4 Cates JE, Christie RV. Subacute bacterial endocarditis: a review of 442 patients treated in 14 centres appointed by the penicillin trials committee of the Medical Research Council. *Q J Med* 1951;20:93-130.

SIR,—I was perturbed to read in the case report by Dr D Denning and others that there had apparently been only a three week gap between the treatment reported and previous antibiotic therapy.

In 1967 we reported the emergence of resistant organisms in the mouths of patients treated with penicillin 48 hours after the start of treatment and showed that these organisms persisted in the mouth for up to two months.¹ There are rare occasions when the resistant organisms that emerge may be resistant even to vancomycin. I have therefore always made three stipulations before using the routine regimen for management of patients with valvular heart disease who require dental extractions and scaling. (1) If the treatment is not urgent there should be a three month gap

before repeat antibiotic therapy is given. (2) In the case of limited urgency the normal oral flora should be cultured and their sensitivities reported so that the appropriate antibiotic is used. (3) If treatment is more urgent the vancomycin regimen should be used.

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- 1 Stirland RM, Shotts N. Antibiotic-resistant streptococci in the mouths of children treated with penicillin. *Lancet* 1967;ii:405-8.

SIR,—Dr D W Denning and others submit that their patient developed endocarditis with an amoxycillin tolerant strain despite prophylaxis because of the large inoculum size of organisms associated with extensive dental disease. This submission may well be correct, but an alternative explanation, not involving a failure of prophylaxis, should also be considered. In August 1982 spontaneous streptococcal bacteraemias could have occurred, in association with the patient's periodontal abscesses, before the dental manipulations. The incubation period of bacterial endocarditis after bacteraemia may vary from a few days to several weeks. Therefore a normal erythrocyte sedimentation rate noted in August does not exclude the possibility that the patient was already incubating endocarditis before the dental clearance, which was carried out on 24 August.

The clinical laboratory findings reported also raise further questions. Could the episode of pulmonary oedema in August 1982 have been due to supervening endocarditis even at this stage? Were antibiotics administered in the few months before August? Why was the streptococcus not isolated from blood cultures in October, and were blood cultures collected when the patient was followed up in January and February 1983?

The importance of administering the 3 g amoxycillin dose one hour rather than two hours before the procedure, under supervision, has already been emphasised in previous reports.^{1,2} In 1980 a second 3 g oral amoxycillin dose was suggested for a "belt and braces" approach for oral prophylaxis.¹ Recently it has been shown that higher and more persistent serum amoxycillin concentrations can be obtained by administering probenecid concurrently with the 3 g amoxycillin.³ If oral prophylaxis is required for a susceptible patient with dental sepsis who needs multiple extractions it may be preferable to administer 1 g oral probenecid concurrently with a single oral dose of 3 g amoxycillin, under supervision, one hour before the procedure.

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- 1 Shanson DC, Ashford RFU, Singh J. High dose oral amoxycillin for preventing endocarditis. *Br Med J* 1980;280:446.
- 2 Working Party of the British Society for Antimicrobial Chemotherapy. Report: the antibiotic prophylaxis of infective endocarditis. *Lancet* 1982;ii:1323-6.
- 3 Shanson DC, McNabb R, Hajipieris P. The effect of probenecid on serum amoxycillin concentrations up to 18 hours after a single 3 g oral dose of amoxycillin: possible implications for preventing endocarditis. *J Antimicrob Chemother* 1984;13:629-32.

*.*Dr Denning and Dr Hillis reply below.—
Ed, *BMJ*.

SIR,—We thank Drs Bain, Shotts, and Sanson for their helpful comments and an opportunity to emphasise some of the issues raised by our case. We do not regard our management of this patient as exemplary in retrospect, but this case emphasises the difficult problems encountered in patients who are suspected of having endocarditis with negative blood cultures. As to specific points, echocardiography was performed twice and confirmed aortic valve disease with no evidence of associated vegetations to suggest endocarditis.

The patient was in hospital for the three weeks before this dental clearance and received no antibiotics. We have no knowledge of any antibiotics being prescribed before this. If Miss Shotts is correct in her assertion that antibiotic resistant (or even tolerant) streptococci persist in the mouth for up to two months after antibiotic therapy, then the recommendations of the working party of the British Society for Antimicrobial Chemotherapy¹ need amendment.

Once the patient's teeth had been removed they could not be implicated as a further source of sepsis as Dr Bain suggests. Although edentulous patients may develop endocarditis, it is more likely that his very poor dental hygiene and dental clearance would be a far greater risk. The isolation of *Streptococcus milleri* (nearest identification, Streptococcal Reference Laboratory) is unusual in the context of dental disease, but we believe that it was selected out precisely because it was amoxycillin tolerant.

Dr Shanson does not address himself to the problem of the organism responsible for our patient's endocarditis being tolerant to amoxycillin. Surely he does not really believe that simply increasing blood concentrations would provide a satisfactory solution.

As Bayliss *et al*¹ and others have pointed out, recommendations for antibiotic prophylaxis of endocarditis are difficult to construct so as to cover every reasonable eventuality and be workable. Besides reporting another case of the failure of amoxycillin prophylaxis, we question the wisdom of recommending only one antibiotic in the context of extensive dental disease. Both amoxycillin and vancomycin tolerance are common² and the bacteraemic load from these patients is likely to be enormous.

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- 1 Working Party of the British Society of Antimicrobial Chemotherapy. Antibiotic prophylaxis of infective endocarditis. *Lancet* 1982;ii:1332-6.
- 2 Glanser MG, Bernard JP, Moreillon P, Francioli P. Successful single dose amoxycillin prophylaxis against experimental streptococcal endocarditis: evidence for two mechanisms of protection. *J Infect Dis* 1983;147:568-75.

SIR,—The case report by Dr D Denning and others is important because it highlights a weakness in the recommendations of the working party of the British Society for Antimicrobial Chemotherapy.¹ Streptococci tolerant to penicillin are found in all mouths. Studies in this laboratory have shown that *Streptococcus sanguis* and *Str mitior* particularly will survive when gingival crevice swabs are inoculated into broths containing 5 µg/ml amoxycillin (W P Holbrook and E Benediktsdóttir, submitted for publication). *Str sanguis* is the most commonly reported