undergo operations to enhance the process of repair. Following such intervention the bone may be further weakened, which may increase the risk of damage to the joint surface.

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¹ Decompression Sickness Central Registry and Radiological Panel. Aseptic bone necrosis in commercial divers. *Lancet* 1981;iii:384.

Staphylococcus aureus bacteraemia

SIR,—The timely and valuable article by Dr W R Gransden and others (28 January, p 300) underscores the continuing importance of staphylococcal infections. One aspect of management long debated is the duration of antibiotic treatment for *Staphylococcus aureus* bacteraemia.

The arguments, which have been prominent in North American reports, hinge on the pros and cons of short course (1-2 weeks) as opposed to more protracted treatment (up to 6 weeks). Attempts have been made to differentiate deep seated staphylococcal infection (including endocarditis, bone and joint infections, and metastatic staphylococcal abscess formation) from less complicated varieties of staphylococcal septicaemia using tests such as teichoic acid antibody measurements. Tuazon *et al* argued that patients with clinical evidence of endocarditis and a positive teichoic acid antibody test should be treated for six weeks¹; as should other patients who have a positive teichoic acid antibody test, regardless of whether there is a recognised focus of infection.

Perhaps Dr Gransden and others could indicate in more detail the duration of treatment that was effective in those patients lacking a focus of deep seated infection or endocarditis. If most patients who acquired their staphylococcal bacteraemias in hospital were managed with a short course of anti-staphylococcal treatment, this could clarify the conflicting attitudes on the subject. It requires some qualification, however, because drugs available in the United States differ. Fusidic acid is not available, and different antistaphylococcal penicillins are used—such as nafcillin, oxacillin, and dicloxacillin.

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¹ Tuazon CU, Sheagren JN, Choa MS, Marcus D, Curtin JA. *Staphylococcus aureus* bacteraemia; relationship between formation of antibodies to teichoic acid and development of metastatic abscesses. *J Infect Dis* 1978;137:57-62.

*.*The author replies below.—Ed, *BMJ*.

SIR,—Dr Finch's request is a timely reminder of the difficulties in deciding how long to treat most patients with bacterial infections. We have long suspected that most courses of antibiotics are too long. Drug toxicity and cost are good reasons for questioning tradition.

Dr Finch's suspicion that most patients who acquired their bacteraemias in hospital were given a short course of treatment is correct,

and it could have been shorter. Patients with bacteraemia from infected intravenous catheter sites received antibiotics for a mean of 12 days, although the range was from 0 to 50 days, and these limits are telling. One patient was cured by removal of the intravenous catheter, and the one treated for 50 days failed to respond until the infected cardiac pacing wire was reluctantly removed. Similarly, patients with bacteraemia from wound infection were treated for a mean of 17 days (range 0-56 days). Two responded to drainage of the wound alone and of the seven treated for over 40 days, four had severe sternal sepsis after cardiac surgery. Thus while for most patients the course of antibiotics was generally short, successful management required removing of the source of sepsis.

Patients who acquire staphylococcal bacteraemia in the community generally have bone, joint, or heart valve complications as well, and these are usually more severe infections than most nosocomial bacteraemia. Our experience, albeit with a small number of patients (103 community acquired bacteraemias), suggests that most patients need, and got, longer courses of antibiotics (mean 41 days, as opposed to 15 days for all infections acquired in hospital); though they too may require surgical intervention when the lesion involves bone, joint, or valve.

We have no experience of teichoic acid antibody estimation in staphylococcal bacteraemia but think that attention to source and site of the organism and clinical assessment of each individual will enable appropriate treatment to be devised. It is worth noting that although fusidic acid is not as yet available in the United States of America, antistaphylococcal penicillins are usually given in much larger doses than are conventionally used in the United Kingdom.

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Need for primary health care: an objective indicator

SIR,—Professor B Jarman (31 March, p 1006) has now relinquished his claim to have developed an objective indicator of primary health care need ("a true measure of the potential workload for general practitioners implicit in the social conditions of the population").¹ If his indicator is, as he now suggests, merely an objective method for identifying underprivileged areas which is based on the subjective views of general practitioners then the implications are very different—for instance, it would be inappropriate to use the views of general practitioners alone as a basis for altering their remuneration structure, or for the planning of community health services.

I am surprised that Professor Jarman validates his method by showing that local medical committees (consisting, of course, of general practitioners) assess the underprivileged status of areas similarly to his own scoring system (based also on the views of general practitioners). After all, "they would, wouldn't they?"

The purpose of my recent paper (11 February, p 457) was simply to show the facility with which methods such as Professor

Jarman's could be used to construct an objective indicator of primary health care need, since the obvious bias inherent in an indicator based on the views of a single group of primary care workers will satisfy no one.

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¹ Jarman B. Identification of underprivileged areas. *Br Med J* 1983;286:1705-9.

*.*This correspondence is now closed.—Ed, *BMJ*.

Prediction of postoperative urinary tract infection in men undergoing cardiac surgery

SIR,—Mr N Waterhouse and Mr A Beaumont (17 March, p 858) have slightly misunderstood our paper on the use of preoperative urine flow rate as a predictor of postoperative urinary tract infection. Their study was concerned with predicting postoperative retention, and their conclusion—that a previous history of retention following surgery makes it likely that retention will again complicate a further operation—is one with which we would agree. In these circumstances, however, our patients would not normally proceed to elective open heart surgery. They would be evaluated by urologists and receive treatment before admission.

Our study was concerned with apparently normal patients and attempted to predict postoperative infection. We did not find that an abnormal preoperative flow rate inevitably resulted in postoperative infection, but we did find that it placed the patient in an at risk group.

We were helped in our inquiries about present or past urological disease by senior urologists. It must be remembered, however, that patients with heart disease may have nocturia and frequency as a result of their heart disease or treatment. We found that the history did not predict because of a wealth of symptoms rather than a lack. Finally, while we would agree that full urodynamic investigation, including formal demonstration of a residual urine, is desirable, we did emphasise that our study was designed to screen patients in the one to two days available before their operation and such investigations, or even repetitive flow rates, were thereby precluded.

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Names for mycobacteria

SIR,—I wish to put forward a view that differs in some important aspects from that expressed by Mr H Collins and others (11 February, p 463).

Tubercle bacilli—We are agreed that *Mycobacterium tuberculosis* and its variants and *M bovis* are the only mycobacteria which should be referred to as tubercle bacilli. It is unscientific, however, to report them all as *M tuberculosis*. Strains of *M bovis* are naturally resistant to pyrazinamide, a drug which has an important role in modern short course regimens. To report such resistance without