penicillin-alone resistant strain was 2.5 mg/l (as opposed to up to 125 mg/l for multiply resistant strains). It would be interesting to know whether these findings apply to the usual community staphylococci of 1978, or indeed whether the resistance markers of hospital strains producing a lot of β -lactamase are still the same. If so can benzylpenicillin (or oral equivalent) be used with success for infections with low β -lactamase producing staphylococci in all sites, whether in or out of hospital? Until these questions are answered we prefer to continue advising cloxacillin (or flucloxacillin), when antibiotic therapy is required, for all infections with penicillin-resistant strains.

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¹ Price, D J E, *et al*, *British Medical Journal*, 1968, **3**, 407.

² Rolinson, G N, *et al*, *Lancet*, 1960, **2**, 564.

³ Richmond, M H, *et al*, *Lancet*, 1964, **1**, 293.

SIR,—Most consultants in accident departments throughout the country would agree with Dr Zehra A Hassam and others (19 August, p 536) that the majority of *Staphylococcus aureus* organisms grown from soft tissue infections presenting to their departments are now resistant to penicillin. They conclude their article with the statement that penicillin is still a suitable antibiotic, despite finding an in-vitro resistance of 86%. I find this hard to accept.

I can well recollect a very painful childhood because of recurring soft tissue infections but cannot remember ever having had a course of antibiotics. Is it possible, therefore, that the more correct treatment is that of a surgical approach and that the use of antibiotics is, in most cases, unnecessary? I would find it far easier to accept that 86% of their cases would have got better without any antibiotics, but nowhere in the article can I find reference to treatment other than antibiotics. A more logical conclusion to draw from these results is that there is still a continuing abuse of antibiotics within the community and that more effort should be made to eradicate this trend.

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Screening for breast cancer

SIR,—There are some things which we can afford to do under the NHS and others we cannot afford. It seems we cannot afford to give adequate cardiac surgery to patients in Liverpool or Birmingham or adequate orthopaedic services in Coventry or adequate general surgery in Northampton, for example. It is recognised that patients with carcinoma are having to go on a waiting list for surgery in several parts of the country.

But in Edinburgh about £100 000 can be spent on screening for breast cancer with detection of 18 cancers out of about 4000 women screened (15 July, p 175). Ten of these cancers were clinically detectable and therefore presumably could have been palpated by the women themselves.

There is no proof that early detection of

these cancers improves the survival rate. In a statement by the British Breast Group (15 July, p 178) it is stated: "We are convinced that early diagnosis of breast cancer is important and that it improves the survival rate." No evidence was presented for this dogmatic statement, nor is any available.

Screening for breast cancer is easily understood and therefore readily supported by politicians and journalists. It will become a marvellous bandwagon, symbolic of the excellence of the NHS. Already firms such as Marks and Spencer offer a free service to their female employees. Reports from the USA, Holland, and Sweden indicate that any modern industrial nation should be embarking on screening for breast cancer or be considered medically second class. The spending of money on grandiose but unproved projects such as breast screening is surely to be deplored when parts of the UK are medical slums.

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African travel

SIR,—Dr S G Barber's article on the care of trans-Saharan travellers (5 August, p 404) is interesting; it is good that the subject of expedition medicine gets aired. Most doctors assume that knowledge of this (highly specialised) field of medicine is acquired by osmosis rather than through hard work.

The article does, however, contain some statements with which not everyone would agree. Obviously each of us is biased and our field of vision is limited and coloured by experiences in our local duckpond. Mine stems from over 15 years of looking after the medical needs of expeditions and travellers of a senior Thameside university, coping with the returned failures, and for several years now for shorter and more extended periods looking after the health of thousands of young people in arid parts of the Sudan and neighbouring Ethiopia.

Dr Barber's section on prophylactic care is a little cavalier. Immunisations should never be given unless the questions "Where are you going?" and "What are you doing there?" have been asked. It is irrelevant that there is a lot of rabies in Ethiopia if the traveller is going to a conference in the Addis Hilton only, but highly relevant if the patient is a zoologist and is proposing to study the dentition of Ethiopian village dogs. You vaccinate the traveller to the Horn of Africa against smallpox not merely to protect him against immigration authorities but (still) against smallpox. Yellow fever can be a very unpleasant disease. Typhus may not be a problem in the Western Sahara, but in some parts of the Sudan and Ethiopia it is a common and nasty disease. Vaccination of travellers against polio is not just "well worth while," it is mandatory; paralytic polio is irreversible. Cholera vaccine, alas, at best protects the traveller against officious immigration officials, probably never against cholera.

For malaria prophylaxis proguanil is certainly not the drug of choice for most parts of Africa, where proguanil resistance is common. Unless there is informed local evidence to the contrary chloroquine two tablets a week (or twice a week in areas with lots of mosquitoes) is currently the only

reasonably reliable, easily available prophylactic. It is not beyond the wit even of the average intelligent person to swallow pills every Sunday. It should be spelt out that the pills should be started a week before and continued for six weeks after a visit to an infected area. Anyone who has had to cope (and with inadequate resources) with hundreds of young sick at once from malaria because of wrong or absent prophylaxis will surely agree.

It surprises me that the author does not mention the canvas water bag. One or several on the camel, Land Rover, or lorry will keep water for folk, beasts, and engines cool by slow evaporation through the canvas. Chlorine tablets can be added with success, and individual expedition members would surely carry their own $\frac{1}{2}$ -1-litre bottles (of metal, *not* plastic, which fractures when dropped), to which chlorine tablets can be added. If you are thirsty a little chlorine matters naught. (Perhaps long exposure to grossly chlorinated tap water is yet another advantage of an Oxford education.)

The importance of an adequate food intake, particularly of protein, has not been sufficiently emphasised. Morale and energy get low if the diet is inadequate. Vitamin supplements are essential. Hundreds of young unable to see after dark because of lack of fat-soluble vitamins can be an alarming experience. Professional desert travellers have repeatedly emphasised to me the importance of an adequate diet.

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Selenium and motor neurone disease

SIR,—Your leading article on lead and motor neurone disease (29 July, p 308) suggests lead as the clue with the greatest aetiological potential in this disorder. But an alternative may be provided by selenium (Se). Se appears to be an essential trace element in animals and possibly in humans, it forms the active site of the enzyme glutathione reductase,¹ and it seems to inhibit lipid peroxidation in a similar manner to vitamin E.

Recently, high Se levels have been linked with amyotrophic lateral sclerosis when a clustering of four cases was reported from a high-Se area of South Dakota.² The same investigators have found an additional cluster of the disease in the same region.³ In the same area of South Dakota naturally occurring Se intoxication is endemic in farm animals and may appear in cattle as "blind staggers." In the above case reports plasma and cerebrospinal fluid Se levels were not measured in all patients, nor were controls used.

Improvements in the current fluorimetric methods of determination of Se⁴ may be required before Se reaches the stage of a "testable working hypothesis" in the aetiology of motor neurone disease.

While controversy continues regarding the role of Se in motor neurone disease,^{6,7} it is interesting to note that selenium sulphide in 2.5% solution is currently marketed as an anti-dandruff shampoo. There are no legal restrictions on sale of SeS₂ shampoo, thereby making it freely available from chemists. Although selenium sulphide is regarded as extremely insoluble and does not penetrate unbroken skin, ingestion does cause profound toxicity.⁸