more flexible patterns of working in society as a whole, may make this inevitable.

Morale for many general practitioners is poor.[11 12] Low morale is both a cause and a result of increased stress. In any organism, person, organisation, or even country stress leads to paranoia. Paranoia leads to defensive behaviour, and the chief result of defensive behaviour in doctors is an inevitable increase in investigation and referral.

The delivery of the NHS Plan depends absolutely on referral patterns of general practitioners remaining the same, or falling. Undervaluing the skills of general practitioners, assuming that most apparently simple consultations can be carried out by other primary care team members, and moving more secondary care procedures into primary care may have exactly the opposite outcome. The choice of which member of the team is consulted must be the patient's, not the system's. With adequate resources, it is entirely logical for primary care teams to take on much more of the work of the NHS, perhaps ending some of the duplication and tribalism that has resulted from the divide between primary and secondary care. But without adequate resources, time, and teams the opposite will occur. An increase in referrals will show just what an effective risk sink British general practice has been for many years. But, like the heat sink, you will only notice it when it fails.

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Old drugs for new bugs

Anecdotes suggest that some bacteria have lost their resistance to older antibiotics

Recent reports have lent support to the potential use of previous generation antibacterial drugs to treat infections caused by new resistant bacteria. The *Morbidity and Mortality Weekly Report* recently described two isolates from the United States of vancomycin resistant *Staphylococcus aureus* with a minimum inhibitory concentration ≥32 μg/ml, both of which were found to be sensitive in vitro to co-trimoxazole as well as to other older antimicrobials.[1 2] Co-trimoxazole was successfully used to treat one of these patients.[1] Unpublished data from our institution and elsewhere[3] show that in the last 15 years isolates of methicillin resistant *S aureus* (MRSA) have progressively, and by now almost universally, become susceptible to co-trimoxazole. Preliminary data indicate that this drug can be used as an alternative to vancomycin to treat infections due to MRSA[4] and include a case report about co-trimoxazole being used successfully to treat a patient with endocarditis that failed to respond to linezolid.[5]

Chloramphenicol, a drug introduced 50 years ago and essentially abandoned in the past three decades, has been reintroduced recently to treat severe infections caused by vancomycin resistant enterococci.[6] A report from India describes the re-emergence of susceptibility to chloramphenicol in *Salmonella typhi* isolates that are increasingly resistant to quinolones and β lactams.[7] The authors suggest reintroducing this drug to treat typhoid fever.

In a recent report from France, Stein and Raoult used colistin, an old and rarely used antibiotic, to treat bone infections caused by a strain of *Pseudomonas aeruginosa* with resistance to all other antibiotics tested.[8] The same drug has been used to treat infections caused by multiresistant strains of *Acinetobacter baumannii*.[9] Sulbactam, a drug introduced in the early 1980s, is increasingly being used for the same purpose.[10] As an alternative to third generation cephalosporins and vancomycin, high doses of penicillin are being proposed to treat pneumococcal infections caused by strains with intermediate levels of penicillin resistance (minimum inhibitory concentration 4-8 μg/ml).[11]

Despite extensive research the pace of development of antibacterial drugs has not kept up with the increase in bacterial resistance. As more and more organisms develop resistance, concern is growing that we may be approaching the end of the antibiotic era. The intensive use and excessive abuse of antibiotics have resulted in the selection of bacteria that are resistant to many and sometimes all antibiotics. For unclear reasons, these multiresistant organisms either retain or regain susceptibility to certain antimicrobials.

Measures to counter the threat of rapidly escalating antimicrobial resistance include surveillance of susceptibility to and consumption of antibiotics, rational use of antibiotics, better compliance with measures to con-

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trol infection, and increasing development and use of vaccines.

Are we reverting to the pre-antibiotic era or advancing into the post-antibiotic era? One of the crucial questions is whether the above mentioned examples will remain anecdotal or whether a real chance exists for the strategic use of forgotten drugs on a large enough scale to affect clinical management.

The recovery of sensitivity to specific antimicrobials by pathogenic bacteria is a complex issue. Two important factors determine rates of resistant bacteria in a specific community—the "human" factor, which is the amount of antimicrobials used, and the "biological" factor, which is the burden that the resistance encoding genes impose on the fitness of the bacteria.[12]

The impact of either the discontinuation or the reintroduction of a specific drug on the rate of resistance will differ for various microorganisms. In addition to the information obtained from mathematical models of population dynamics,[12] continuous surveillance of in vitro susceptibility will inform us about the effect of reintroducing older drugs. In some instances, resistance could rapidly re-emerge owing to the presence of low rates of resistant genes in a population that once was predominantly resistant. In the future, older antimicrobials will be relied on more and more, either as isolated "no other choice" options or as part of a programmed policy of antibiotic cycling.

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The BetterCare judgment—a challenge to health care

European competition law may cover publicly funded, privately provided care

A landmark decision by the United Kingdom's Competition Commission could make all contracting out and commissioning of health care by NHS and social services subject to European Union competition law, rather than a matter for national public health policy. Healthcare reforms in the United Kingdom are already exacerbating tensions between the European Union's economic constitution and national control over healthcare policy. In principle, competition rules in the European Community focus on economic activity and entrepreneurial freedoms, leaving "true welfare state activity" to member governments,[1] but a recent judgment by a United Kingdom tribunal shows how the courts are moving the dividing line between economic and social activities.[2]

In November 2000, the BetterCare Group (a private company selling nursing and residential care in Northern Ireland) used the United Kingdom's competition law to challenge the contract price for private nursing home beds arranged with North and West Belfast Health and Social Services Trust (Northern Ireland's combined local commissioner for health and social care).

BetterCare alleged that the contract price was set too low because the trust was abusing its dominant market position in violation of competition rules.[2] The director general of fair trading, who is responsible for policing competition rules, rejected the complaint. He ruled that competition rules did not apply in this case because North and West's provision of social services was not an economic activity. BetterCare, however, appealed against this ruling on the grounds, among others, that the European Court of Justice, which interprets European competition law, defines purchasing care as an economic activity, not one of the welfare state. The appeal was upheld by a tribunal of the United Kingdom's Competition Commission, and judgment was published in August 2002.

Under the Competition Act 1998, the UK Competition Commission is required to settle competition issues in line with European Union law.[3] But the European Court has not yet ruled on the specific issue of contracting out, and so the United Kingdom's tribunal had to decide for itself whether publicly funded but privately provided nursing and social care was covered by European competition law.

The crucial question was whether the trust was engaging in economic or welfare activity. Health and social services trusts bear the hallmarks of traditional welfare activity. They are established in Northern Ireland to carry out the statutory duties of the Department of Health and the Department of Social Services and Personal Safety. They are funded with a block

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