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# Linezolid

## A Viewpoint by Richard Wise

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To anyone working in the clinical area of infection in hospitals (and increasingly in the community), the problems of treating Gram-positive coccal infections are well known. Methicillin-resistant staphylococcal infection is widespread, vancomycin-resistant enterococcal disease is a particular problem in many units, and the increasing incidence of penicillin (and hence β-lactam) resistance in *Streptococcus pneumoniae* causes concern.

The *in vitro* activity of linezolid is remarkable in that all the Gram-positive cocci mentioned above are generally susceptible to this drug at concentrations of ≤2 mg/L. Resistance is particularly difficult to produce *in vitro*, although 2 new cases of enterococcal resistance have appeared during the compassionate use studies.

One of the attractive features of linezolid is the ability to administer the drug by either oral or parenteral routes. Hence, there will be an ease of 'step-down' use of this compound. Moreover, adverse events appear to be infrequent.

In clinical trials, linezolid showed efficacy in skin and soft tissue infections, community-acquired pneumonia and serious infections caused by susceptible pathogens. Consequently, linezolid has the potential to replace vancomycin in the treatment of a number of important infectious diseases and its major use will undoubtedly be in the treatment of methicillin-resistant *Staphylococcus aureus* infections. It is my belief that it will be less used in the treatment of respiratory tract pathogens. As vancomycin must be administered by the parenteral route, use of linezolid should simplify treatment and has the potential to ensure more rapid discharge from hospital. As long as the problem of emergence of resistance is minimal, linezolid is a highly promising drug for the treatment of a wide range of important pathogens. ▲