

Correspondence

therapy with linezolid is that its prolonged use is associated with myelosuppression, but given linezolid's efficacy for treating serious Gram-positive infections, activity against resistant pathogens and equivalent intravenous-to-oral formulations, the benefits of linezolid treatment may outweigh the potential risk of reversible myelosuppression. Neither alternative is mentioned in the article by Bernard *et al.*¹ We believe that any article that intends approaching PTI therapy has to mention all the possible antimicrobial alternatives, and clearly state that the mainstays of therapy are glycopeptides, at least until well-designed trials show evidence of greater benefit of other agents.

References

1. Bernard, L., Hoffmeyer, P., Assal, M. *et al.* (2004). Trends in the treatment of orthopaedic prosthetic infections. *Journal of Antimicrobial Chemotherapy* **53**, 127–9.
2. Centers for Disease Control and Prevention. (1999). National Nosocomial Infection Surveillance (NNIS) System report, data summary from January 1990 to May 1999, issued June 1999. *American Journal of Infection Control* **27**, 520–32.
3. Smith, T. L., Pearson, M. L., Wilcox, K. R. *et al.* (1999). Emergence of vancomycin resistance in *Staphylococcus aureus*. *New England Journal of Medicine* **340**, 493–501.
4. Saleh-Mghir, A., Ameer, N., Muller-Serieys, C. *et al.* (2002). Combination of quinupristin-dalfopristin (Synercid) and rifampin is highly synergistic in experimental *Staphylococcus aureus* joint prosthesis infection. *Antimicrobial Agents and Chemotherapy* **46**, 1122–4.
5. Moellering, R., Jr (2003). Linezolid: the first oxazolidinone antimicrobial. *Annals of Internal Medicine* **138**, 135–42.
6. Moise, P. A., Forrest, A., Birmingham, M. C. *et al.* (2002). The efficacy and safety of linezolid as treatment for *Staphylococcus aureus* in compassionate use patients who are intolerant of, or who have failed to respond to, vancomycin. *Journal of Antimicrobial Chemotherapy* **50**, 1017–26.

Journal of Antimicrobial Chemotherapy

DOI: 10.1093/jac/dkh195

Advance Access publication 31 March 2004

Reply

Louis Bernard^{1–3}, Pierre Hoffmeyer¹, Mathieu Assal¹, Pierre Vaudaux², Jacques Schrenzel² and Daniel Lew^{2*}

¹Orthopaedic Clinic and ²Division of Infectious Diseases, Geneva University Hospital, 24 rue Micheli-du-Crest, 1211 Geneva 14, Switzerland; ³Division of Infectious Diseases, Garches University Hospital, France

Keywords: prosthetic joint infections, orthopaedic, prosthetic infections, treatment

*Corresponding author. Tel: +41-22-372-33-11; Fax: +41-22-372-77-91; E-mail: daniel.lew@hcuge.ch

Dear Sir,

We thank Parra-Ruiz *et al.*¹ for their useful comments on alternative antimicrobial therapy for orthopaedic prosthetic infections

(OPIs) due to methicillin-resistant *Staphylococcus aureus* (MRSA) or *Staphylococcus epidermidis* (MRSE). These infections are protracted and difficult to treat. In our article,² we indicate that glycopeptides (vancomycin, teicoplanin) remain the primary drugs that should be used for this indication.³ The combinations of fusidic acid (or quinolone)⁴–rifampicin⁵ and trimethoprim–sulfamethoxazole⁶ for susceptible strains have been successfully used in OPI.

We clearly need more new drugs to treat MRSA infection. As discussed by Parra-Ruiz *et al.*,¹ both quinupristin–dalfopristin and linezolid are interesting alternatives, but unfortunately, there is only limited clinical experience with these compounds in osteomyelitis or OPI. Peripheral vein toxicity with quinupristin–dalfopristin and secondary effects upon prolonged therapy with linezolid⁷ are serious concerns.

Daptomycin⁸ has recently been approved for the therapy of skin and soft tissue infections. Novel glycopeptides such as dalbavancin⁹ and a novel cephalosporin active against MRSA activity¹⁰ are promising drugs under development.

References

1. Parra-Ruiz, J., Martinez, M., Antelo-Lorenzo, R. *et al.* (2004). Antimicrobials in the treatment of orthopaedic prosthetic infections. *Journal of Antimicrobial Chemotherapy* **53**, DOI: 10.1093/jac/dkh186.
2. Bernard, L., Hoffmeyer, P., Assal, M. *et al.* (2004). Trends in the treatment of orthopaedic prosthetic infections. *Journal of Antimicrobial Chemotherapy* **53**, 127–9.
3. Bernard, L., El-Hajj, L., Pron, B. *et al.* (2001). Outpatient parenteral antimicrobial therapy (OPAT) for the treatment of osteomyelitis: evaluation of efficacy, tolerance and cost. *Journal of Clinical Pharmacy and Therapeutics* **26**, 445–51.
4. Stein, A., Drancourt, M. & Raoult, D. (2000). Ambulatory management of infected orthopaedic implants. In *Infections Associated with Indwelling Medical Devices* (Waldvogel, F. A. & Bisno, A. L., Eds), pp. 211–30. ASM Press, Washington, DC, USA.
5. Drancourt, M., Stein, A., Argenson, J. N. *et al.* (1997). Oral treatment of *Staphylococcus* spp. infected orthopaedic implants with fusidic acid or ofloxacin in combination with rifampicin. *Journal of Antimicrobial Chemotherapy* **39**, 235–40.
6. Stein, A., Bataille, J. F., Drancourt, M. *et al.* (1998). Ambulatory treatment of multidrug-resistant *Staphylococcus*-infected orthopedic implants with high-dose oral co-trimoxazole (trimethoprim–sulfamethoxazole). *Antimicrobial Agents and Chemotherapy* **42**, 3086–91.
7. Bernard, L., Stern, R., Lew, D. *et al.* (2003). Serotonin syndrome after concomitant treatment with linezolid and citalopram. *Clinical Infectious Diseases* **36**, 1274–5.
8. Anonymous. (2004). Daptomycin (Cubicin) for skin and soft tissue infections. *Medical Letter on Drugs and Therapeutics* **46**, 11–2.
9. Seltzer, E., Dorr, M. B., Goldstein, B. P. *et al.* (2003). Once-weekly dalbavancin versus standard-of-care antimicrobial regimens for treatment of skin and soft-tissue infections. *Clinical Infectious Diseases* **37**, 1298–303.
10. Jones, R. N., Deshpande, L. M., Mutnick, A. H. *et al.* (2002). *In vitro* evaluation of BAL9141, a novel parenteral cephalosporin active against oxacillin-resistant staphylococci. *Journal of Antimicrobial Chemotherapy* **50**, 915–32.