

Linezolid/vancomycin

Development of linezolid- and vancomycin-resistance in *Enterococcus faecium*: 2 case reports

A woman developed linezolid- and vancomycin-resistant *Enterococcus faecium* (VRE) while receiving both agents for various infections, and another woman developed linezolid-resistant VRE during linezolid administration for VRE therapy.

A 24-year-old woman underwent surgery for necrotising pancreatitis and subsequently developed stenotrophomas pneumonia, a fungal urinary tract infection and catheter-associated sepsis due to coagulase-negative staphylococci. She started receiving multiple antimicrobials, including vancomycin [dosage not stated] and linezolid 600mg twice daily. She required frequent peritoneal lavage due to peritonitis, and colonisation with vancomycin-susceptible enterococci was identified on surveillance cultures. After 5 weeks of linezolid therapy, enterococci isolated from abdominal swab and faecal smear were identified as *E. faecium* with both vancomycin and linezolid resistance [duration of vancomycin therapy to reaction onset not clearly stated]. Linezolid was replaced by quinupristin/dalfopristin and her condition subsequently improved.

A 41-year-old woman with chronic myeloid leukaemia started receiving vancomycin and imipenem/cilastatin for severe mucositis and diarrhoea. Blood cultures grew VRE susceptible to linezolid, and she started receiving linezolid 600mg twice daily. Her clinical picture worsened 5 weeks later, and blood cultures were again positive for VRE; however, the isolates also showed linezolid resistance. She started receiving daptomycin and tetracycline, and her clinical condition consolidated; no VRE was isolated from stool or blood cultures throughout the course of treatment. Linezolid-susceptible VRE was again isolated from stool cultures 4 months later.

Saager B, et al. Molecular characterisation of linezolid resistance in two vancomycin-resistant (VanB) *Enterococcus faecium* isolates using Pyrosequencing TM. European Journal of Clinical Microbiology and Infectious Diseases 27: 873-878, No. 9, Sep 2008 - Germany 801125962