enterococci but not VRE. Likewise, dalbavancin, a lipoglycopeptide antibiotic with a long terminal half-life, has FDA approval for skin and soft tissue infections due to susceptible strains of *E. faecalis*, but no activity against VRE. Oritavancin, a novel glycopeptide with activity against VRE, has been approved for the treatment of acute bacterial skin and soft tissue infections caused by susceptible organisms, including vancomycin-susceptible *E. faecalis*. The MICs of oritavancin against VRE are low, and this compound may be a promising drug for VRE treatment in the future.

Lastly, tedizolid—a new oxazolidinone now available for clinical use—is approved only for the treatment of *E. faecalis* infections. Tedizolid is more potent than linezolid in vitro against VRE strains; however, its role in severe VRE infections remains to be determined.

ANTIMICROBIAL RESISTANCE

Resistance to β-lactam agents continues to be observed only infrequently in *E. faecalis* but is characteristic of *E. faecium*. The mechanism of ampicillin resistance in *E. faecium* is related to a penicillin-binding protein (PBP) designated PBP5, which is the critical target of β-lactam antibiotics. PBP5 exhibits low affinity for ampicillin and can synthesize cell wall in the presence of this antibiotic, even when other PBPs are inhibited. The version of this protein found in ampicillin-resistant hospital-associated strains has multiple amino-acid differences that even further decrease the affinity of PBP5 for ampicillin; these changes and/or increased production of PBP5 are the two most common mechanisms of high-level ampicillin resistance (e.g., MIC >32 μg/mL) in clinical strains.

Vancomycin is a glycopeptide antibiotic that inhibits cell-wall peptidoglycan synthesis in susceptible enterococci and has been widely used against enterococcal infections in clinical practice when the utility of β-lactams is limited by resistance, allergy, or adverse reactions. This effect is mediated by binding of the antibiotic to peptidoglycan precursors (UDP-MurNAc-pentapeptides) upon their exit from the bacterial cell cytoplasm. The interaction of vancomycin with the peptidoglycan is specific and involves the last two D-alanine residues of the precursor. The first isolates of VRE were