

Gram-Positive Bacterial Infections: Research Priorities, Accomplishments, and Future Directions of the Antibacterial Resistance Leadership Group.

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Abstract

Antimicrobial resistance in gram-positive bacteria remains a challenge in infectious diseases. The mission of the Gram-Positive Committee of the Antibacterial Resistance Leadership Group (ARLG) is to advance knowledge in the prevention, management, and treatment of these challenging infections to improve patient outcomes. Our committee has prioritized projects involving methicillin-resistant *Staphylococcus aureus* (MRSA) and vancomycin-resistant enterococci (VRE) due to the scope of the medical threat posed by these pathogens. Approved ARLG projects involving gram-positive pathogens include (1) a pharmacokinetics/pharmacodynamics study to evaluate the impact of vancomycin dosing on patient outcome in MRSA bloodstream infection (BSI); (2) defining, testing, and validating innovative assessments of patient outcomes for clinical trials of MRSA-BSI; (3) testing new strategies for "step-down" antibiotic therapy for MRSA-BSI; (4) management of staphylococcal BSIs in neonatal intensive care units; and (5) defining the impact of VRE bacteremia and daptomycin susceptibility on patient outcomes. This article outlines accomplishments, priorities, and challenges for research of infections caused by gram-positive organisms.