**Background:** MRX-I is a new fluoroquinolone investigated in development for the treatment of acute bacterial skin and soft tissue infections (ABSSSI) and community-acquired pneumonia (CAP). Preclinical data suggest that MRX-I is associated with non-bacterial host inflammatory markers, indicating less systemic toxicity compared to standard of care (SOC) antibiotics.

**Methods:** A total of 1,211 organisms were randomly selected from bacterial isolates collected in the United States (US) and Europe (EU) and tested from the study database maintained by the Sentar/Nanovar Antimicrobial Surveillance Program (SNAP) and the University of Iowa (UIowa) collection. The following species/groups were tested (1,211 total): 386 Staphylococcus aureus (396; 308 methicillin-resistant [MRSA] and 88 methicillin-susceptible [MSSA] strains), E. faecium (201), E. faecalis (201), 88.5 viridans group streptococci (VGS), 100 Streptococcus pneumoniae (SPN), 100 Enterococcus faecalis (EFA), and 100 Staphylococcus epidermidis (SEP).

**Results:** MRX-I powder was provided by MicuRx Pharmaceuticals, Inc. (Hayward, California, USA) and consisted of 2 media types: cation-adjusted Mueller-Hinton broth (CAMHB) and CAMP agar base (NaCl 0.5 M). MIC (µg/mL) was determined using the reference CLSI method (2017) and EUCAST method (2017). “—” indicates that no breakpoint has been established.

**Conclusion:** MRX-I was very active against a large collection of contemporary (2015) clinical isolates of Gram-positive bacteria from US and European medical centers, with high activity against MRSA, vancomycin-resistant enterococci (VRE), and other clinical resistant pathogens. The results of this investigation support clinical development of MRX-I.

**Table 1** Summary of MRX-I and linezolid susceptibility when tested against 1,211 contemporary Gram-positive isolates

**Table 2** Activity of MRX-I and comparator antimicrobial agents when tested against 201 contemporary Gram-positive organisms from US and European medical centers

**Acknowledgements**

This study was supported by MicuRx Pharmaceuticals, Inc.

**References**


Wayne, PA: CLSI.