**INTRODUCTION**

Omiganan is a novel peptide developed with potential for targeting catheter-related infections. It is a cationic antimicrobial peptide derived from the plant-derived insecticidal protein omiganan, which has a broad spectrum of activity against a variety of bacteria and fungi. The peptide inhibits cell wall synthesis and expression of virulence mediators. Clinical studies have shown omiganan to be well tolerated and efficacious in the treatment of infections. In this study, we investigated the activity of omiganan against contemporary bacterial and fungal pathogens in clinical isolates.

**RESULTS**

Omiganan was tested against a large collection of clinical isolates from North America. The MICs of omiganan were determined by the CLSI broth microdilution method. The results showed that omiganan had a broad spectrum of activity against both Gram-positive and Gram-negative bacteria, with MIC values ranging from 1 to 512 μg/ml. In particular, omiganan demonstrated excellent activity against Pseudomonas aeruginosa, with MIC values of 32 μg/ml for most isolates. Additionally, omiganan inhibited the growth of fungi, with MIC values ranging from 8 to 512 μg/ml. The results indicated that omiganan has potential as a topical agent for the prevention and treatment of catheter-related infections.

**CONCLUSIONS**

Omiganan is a novel antibacterial peptide that shows promising activity against contemporary Gram-negative pathogens. Its broad spectrum of activity and potential for topical delivery make it a promising candidate for the prevention and treatment of catheter-related infections. Further studies are needed to determine its clinical efficacy and safety in clinical settings.