In studies, BC-3781 exhibited time-dependent killing, showed predominately bacteriostatic properties against S. aureus (bacterial agent Staphylococcus pneumoniae and Haemophilus influenzae) and produced a modest post antibiotic effect. The 24 h AU/MIC ratio followed by the T$_{90}$ was determined to be the appropriate treatment for the antibacterial skin and skin structure infections (ABSSSI). [4]

The efficacy of parenteral administered BC-3781 was superior to linezolid and equivalent to vancomycin (Figure 1). The 24 h AUC/MIC ratio followed by the T$_{90}$ was determined to be the appropriate treatment for the antibacterial skin and skin structure infections (ABSSSI). [4]

The efficacy of BC-3781 against MRSA-induced peritonitis was superior to vancomycin and linezolid (Figure 2).

The immune status of mice did not influence BC-3781 efficacy.

The immune status of mice did not influence BC-3781 efficacy.

**REFERENCES**


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**ABSTRACT**

Objectives: The pleuromutilin BC-3781 is a new antimicrobial agent, which is in clinical development for intravenous and oral treatment of acute bacterial skin and skin structure infections (ABSSSI) and community-acquired bacterial pneumonia (CABP). BC-3781 exhibits excellent antimicrobial activity against a range of methicillin sensitive and resistant Staphylococcus aureus (MSSA and MRSA) strains.

Methods: Murine peritonitis models inducing staphylococcal and streptococcal infections were established in immune competent and female mice. The efficacy of parenterally administered BC-3781 was superior to linezolid and vancomycin in a high and single challenge. The 24 h AUC/MIC ratio followed by the T$_{90}$ was determined to be the appropriate treatment for acute bacterial skin and skin structure infections (ABSSSI). [4]

In vivo activity of BC-3781 was observed in the MSSA thigh model after a 48 h treatment with a significant reduction of viable bacteria at site of infection. The efficacy of BC-3781 is currently in a Phase II clinical trial in acute bacterial skin and skin structure infections (ABSSSI) and cutaneous infections. In vivo activity of BC-3781 is currently in a Phase II clinical trial in acute bacterial skin and skin structure infections (ABSSSI).

In vitro and in vivo studies, BC-3781 exhibited time-dependent killing, showing predominately bacteriostatic properties against S. aureus (bacterial agent Staphylococcus pneumoniae and Haemophilus influenzae) and produced a modest post antibiotic effect. The 24 h AU/MIC ratio followed by the T$_{90}$ was determined to be the appropriate treatment for the antibacterial skin and skin structure infections (ABSSSI). [4]

In vitro activity of BC-3781 was observed in the MSSA thigh model after a 48 h treatment with a significant reduction of viable bacteria at site of infection. BC-3781 showed superior activity compared to linezolid and vancomycin against staphylococcal induced thigh infections (Figure 3).

**RESULTS**

In vivo and in vitro studies, BC-3781 exhibited time-dependent killing, showing predominately bacteriostatic properties against S. aureus (bacterial agent Staphylococcus pneumoniae and Haemophilus influenzae) and produced a modest post antibiotic effect. The 24 h AU/MIC ratio followed by the T$_{90}$ was determined to be the appropriate treatment for the antibacterial skin and skin structure infections (ABSSSI). [4]

In vivo and in vitro studies, BC-3781 exhibited time-dependent killing, showing predominately bacteriostatic properties against S. aureus (bacterial agent Staphylococcus pneumoniae and Haemophilus influenzae) and produced a modest post antibiotic effect. The 24 h AU/MIC ratio followed by the T$_{90}$ was determined to be the appropriate treatment for the antibacterial skin and skin structure infections (ABSSSI). [4]