**Abstract**

Objective: To determine the spectrum and potency of ceftaroline (CPT) against recent (2010) leading pathogens causing complicated skin and skin structure infections (cSSSI) isolated in Europe and South Africa. CPT, the active metabolite of the prodrug ceftaroline fosamil, demonstrated broad-spectrum in vitro activity against typical complicated skin and skin-structure infections. The aim of this study was to evaluate CPT against recent (2010) leading pathogens associated with complicated skin and skin-structure infections.

Methods: A total of 2,943 isolates from the 2010 Assessing Wider European Resistance to Antibiotics (AWERA) Programme were identified as cSSSI pathogens by the international CLSI guidelines (Table 1). Isolates were collected from patients in 54 medical centres in 19 European countries (including Israel and Turkey) and in South Africa during 2010. Susceptibility testing for CPT and commonly used antimicrobials was performed at JMI Laboratories, North Liberty, Iowa, USA. Susceptibility interpretations for the comparators were published in CLSI and EUCAST guidelines. Extended spectrum beta-lactamase (ESBL) phenotype was determined as per CLSI guidelines.

Results: The spectrum of CPT against the leading pathogens isolated is shown in Table 1. In vitro activity was observed against Gram-positive cocci, including S. aureus (MIC₉₀, ≤0.03 mg/L) and Enterococcus faecalis (MIC₉₀, ≤0.06 mg/L) with 100% susceptibility (data not shown). CPT demonstrated marked broad-spectrum in vitro activity against the majority of cSSSI pathogens isolated in Europe and South Africa during 2010. CPT was very active overall against the leading pathogens, including MRSA strains, isolated from patients with community-acquired infections in Europe and South Africa (including Israel and Turkey) and in South Africa during 2010.

Conclusions: This study demonstrated the potent in vitro activity of CPT against the majority of recent pathogens associated with complicated skin and skin-structure infections. These data suggest that ceftaroline may emerge as an important therapeutic alternative for cSSSI occurring in Europe and SAF.