Antimicrobial Activity of the Novel Cephalosporin Ceftaroline Tested Against Gram-positive Organisms Causing Skin and Skin Structure Infections (SSSI) Isolated in USA and European Medical Centers in 2008

HS SADER, D BIEK, I CRITCHLEY, RN JONES JMI Laboratories, North Liberty, IA: Cereza, Alameda, CA

Amended Abstract

Introduction
Ceftaroline (formerly T-2519) is a broad-spectrum cephalosporin that has been evaluated as an extracellular matrix agent against community-acquired pathogens, including methicillin-resistant Staphylococcus aureus (MRSA). The potential for this agent to reduce infections in the treatment of Gram-positive infections is of particular interest in the treatment of osteomyelitis and related infections. This study was supported by Forest Laboratories, Inc.

Methods
Clinical isolates of S. aureus, S. epidermidis, and viridans group streptococci (MSSA and MSSE) were collected through the Antimicrobial Susceptibility Testing Program of the Clinical and Laboratory Standards Institute (CLSI). The susceptibility of isolates against ceftaroline was determined by microdilution methods using the Clinical and Laboratory Standards Institute (CLSI) guidelines.

Results
The percentages of MRSA inhibited at 1 and 2 µg/ml of ceftaroline were 29.9 and 70.1% in the USA, and 9.0 and 99.8% in Europe, respectively (Table 1). Ceftaroline demonstrated excellent activity against this organism with all isolates inhibited at ≤0.03 µg/ml. Ceftaroline was also very active but slightly less potent than linezolid and vancomycin (MIC90, 0.06 µg/ml) against these common pathogens, and 99.1% of strains were inhibited at ≤0.03 µg/ml of ceftaroline.

Limitations
This study was supported by Forest Laboratories, Inc.