Activity of Ceftaroline and Comparator Agents Tested Against Contemporary (2010) Pathogens Commonly Associated With Respiratory Tract Infections in Asia-Pacific Countries and South Africa

DJ BIEDEBACH, RK FLAMM, DJ FARRER, HS SADER, RN JONES
JMI Laboratories, North Liberty, IA, USA

Introduction
Respiratory tract infections (RTIs) are a concern in the community and in medical facilities as a result of increasing antimicrobial resistance. The emergence of multidrug-resistant (MDR) organisms among the bacterial species responsible for RTIs poses a significant public health concern. In addition, the emergence of multidrug-resistant (MDR) organisms among the bacterial species responsible for RTIs poses a significant public health concern. In recent years, there has been an increase in the prevalence of MDR bacteria, which can be resistant to multiple classes of antibiotics, making it challenging to select appropriate treatment options.

Materials and Methods
Consent
Informed consent was obtained from all participants or their legal guardians before the study.

Results
A total of 1,250 bacterial isolates were evaluated. Ceftaroline was compared to comparator agents, such as ceftriaxone, amoxicillin/clavulanic acid, linezolid, and vancomycin, to determine their in vitro activity against RTI pathogens isolated in the Asia-Paciﬁc and South Africa (APAC and SAF, 2010).

Conclusions
Ceftriaxone was highly active against RTI pathogens in the Asia-Paciﬁc and South Africa (APAC and SAF, 2010).

Table 1. Geographical Distribution of Isolates in the 2010 APAC and SAF Surveillance for Ceftaroline.

Table 2. Summary of Ceftaroline Activity Tested Against Pathogens Associated with RTI from APAC and SAF Medical Centers (2010).

Table 3. Activity of Ceftaroline and Comparator Agents Tested Against 97 Isolates at a MIC of ≤0.25 μg/ml (Table 4).

Conclusions:
Ceftriaxone showed potent in vitro activity against pneumococci, including cefuroxime-resistant and levofloxacin-resistant S. pneumoniae, less activity against penicillin-resistant (MIC, ≥2 μg/ml) H. inﬂuenzae, and M. catarrhalis. However, activity against other pathogens varied among the study locations.

References