Amended Abstract

Ceftriaxone, the active form of the prodrug ceftaroline, is a novel, broad-spectrum cephalosporin with activity against Gram-positive organisms. Clinical isolates from >50 US medical centers displayed a spectrum of susceptibility to CXL. Activity of CXL against staphylococci or streptococci was comparable to CRO against PEN-R SPN; the highest CXL MIC was ≤0.03/0.25 µg/mL when tested against SA. CXL was 8-fold more potent than ceftriaxone (MIC50, ≤0.25 ≤0.25 µg/mL) when tested against MRSA (MIC range, 0.25-2 µg/mL). CXL (MIC50 and MIC90, 1 µg/mL) was 2-fold more potent than CRO against PEN-R SPN; the highest CXL MIC was ≤0.5 µg/mL when tested against other β-lactamase agents tested. CXL MIC distributions for staphylococci and streptococci are summarized in Table 1. All isolates were consecutively collected from >50 US medical centers during 2009. Isolates were evaluated using the CLSI method as described by the Clinical and Laboratory Standards Institute (2010). Supported by Forest Laboratories, Inc.

Introduction

Ceftriaxone, the active form of the prodrug ceftaroline, is a novel, broad-spectrum cephalosporin with activity against Gram-positive organisms. Clinical isolates from >50 US medical centers displayed a spectrum of susceptibility to CXL. Activity of CXL against staphylococci or streptococci was comparable to CRO against PEN-R SPN; the highest CXL MIC was ≤0.03/0.25 µg/mL when tested against SA. CXL was 8-fold more potent than ceftriaxone (MIC50, ≤0.25 ≤0.25 µg/mL) when tested against MRSA (MIC range, 0.25-2 µg/mL). CXL (MIC50 and MIC90, 1 µg/mL) was 2-fold more potent than CRO against PEN-R SPN; the highest CXL MIC was ≤0.5 µg/mL when tested against other β-lactamase agents tested. CXL MIC distributions for staphylococci and streptococci are summarized in Table 1. All isolates were consecutively collected from >50 US medical centers during 2009. Isolates were evaluated using the CLSI method as described by the Clinical and Laboratory Standards Institute (2010). Supported by Forest Laboratories, Inc.

Results

- CXL MIC distributions for staphylococci and streptococci are summarized in Table 1. All isolates were consecutively collected from >50 US medical centers during 2009. Isolates were evaluated using the CLSI method as described by the Clinical and Laboratory Standards Institute (2010). Supported by Forest Laboratories, Inc.

Conclusions

- CXL was the most potent β-lactam agent tested against MRSA and penicillin-resistant S. pneumoniae, unlike other β-lactam agents tested.
- Ceftriaxone combined with a fixed concentration of 4 µg/mL of NXL104 represents a potential therapeutic option for the treatment of infections caused by staphylococci or streptococci while still possessing excellent Gram-negative activity.

References


Acknowledgments

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