Ceftobiprole Activity When Tested against Clinical Bacterial Pathogens from Europe, Turkey, and Israel 2014

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AMENDED ABSTRACT

Background: To evaluate the antimicrobial activity of ceftobiprole (BPR) against prevalent bacterial pathogens from Europe, Turkey, and Israel.

Methods and Materials: Antimicrobial susceptibility testing was performed according to CLSI guidelines for 177 clinical isolates from 59 treatment-naive patients from Europe and Israel. The susceptibility testing was performed for 12 antimicrobial agents: ceftobiprole, ampicillin, amoxicillin-clavulanate, cefepime, imipenem, penicillin, ciprofloxacin, azithromycin, clarithromycin, tetracycline, Gentamicin, and Trimethoprim/Sulfamethoxazole.

Results: 100% of isolates were susceptible to ceftobiprole at 0.7 to 2 µg/mL. BPR showed excellent activity against clinically significant Gram-negative bacteria, such as Acinetobacter baumannii, Pseudomonas aeruginosa, and Enterococcus faecalis. BPR demonstrated good activity against Staphylococcus aureus. BPR was not active against methicillin-resistant Staphylococcus aureus (5.0% susceptibility).

Conclusions: BPR exhibited potent activity across 12 antimicrobial agents against prevalent bacterial isolates from Europe, Turkey, and Israel.

INTRODUCTION

Ceftobiprole is a novel carbapenem/xanthene active against Gram-positive and Gram-negative bacteria. As a result of activity, it may be used in the treatment of patients infected with MDR pathogens. The mechanism of action of ceftobiprole has not been extensively studied, and the pharmacokinetics have not been well-defined. The objective of this study was to evaluate the activity of ceftobiprole against clinical isolates from Europe, Turkey, and Israel.

RESULTS

Table 1: MIC and cumulative % frequency distributions for ceftobiprole.

Table 2: Activity of ceftobiprole and comparator antimicrobial agents when tested against Gram-positive pathogens from Europe, Turkey, and Israel.

Table 3: Activity of ceftobiprole and comparator antimicrobial agents when tested against Gram-negative pathogens from Europe, Turkey, and Israel.

CONCLUSIONS

Ceftobiprole exhibited potent in vitro activity against a broad range of Gram-positive and -negative pathogens isolated from patients in Europe, Turkey, and Israel during 2014.

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REFERENCES