Antimicrobial Activity of Cefepime-Zidebactam (WCK 5222) When Tested against Bacterial Isolates from Patients Hospitalized with Pneumonia

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Abstract

Background: Zidebactam (ZID) is a β-lactamase inhibitor with a unique mode of action when combined with cefepime (WCK 5222). Previous studies demonstrate activity against MDR isolates, including ESBL-producing carbapenem-resistant isolates from patients hospitalized with pneumonia.

Methods: Among the carbapenem-resistant isolates of P. aeruginosa from pneumonia patients, 1,468 were susceptible to either cefepime (MIC range 0.03/0.12–100 μg/mL) or ZID (MIC range 0.03/0.12–100 μg/mL). Isolates were tested using the broth microdilution method as described in CLSI document M07-A10 (2015).

Results: Table 1 summarizes the activity against isolates collected from patients hospitalized with pneumonia.

Table 1: Summary of cefepime-zidebactam 1:1 activity against isolates collected from patients hospitalized with pneumonia.

<table>
<thead>
<tr>
<th>Organism</th>
<th>MIC (μg/mL)</th>
<th>Inhibition (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P. aeruginosa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very susceptible</td>
<td></td>
<td></td>
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<tr>
<td>≥MIC 32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤MIC 32, &gt;MIC 16</td>
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<tr>
<td>≤MIC 8, &gt;MIC 4</td>
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<td></td>
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<tr>
<td>≤MIC 1, &gt;MIC 0.5</td>
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</tbody>
</table>

Conclusions:

• Cefepime-zidebactam (WCK 5222) was very active against the worldwide collection of Gram-negative isolates from patients with pneumonia, including MDR isolates, including those from China collected in 2013.

Acknowledgements

The authors thank all the patients, medical practitioners, and microbiology laboratories involved in this study.

References


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