In Vitro Activity of Plazomicin Against Gram-Negative and Gram-Positive Pathogens Isolated from Patients in Hospitals in 2011-2015: CANWARD Surveillance Study

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OBJECTIVE

To determine the In vitro activity of plazomicin, along with antimicrobial and non-antimicrobial substances, against Gram-negative and Gram-positive pathogens isolated from patients in medical and surgical wards, intensive care units, clinic, and emergency rooms at 15 Canadian hospitals (2011-2015).

METHODS

Aim: Antimicrobial susceptibility testing was performed using broth microdilution broth panels following the method recommended by CLSI.

RESULTS

Bacterial isolates Collected

1447 clinical isolates were collected for CANWARD 2011-2015. A total of 1365 isolates were further analyzed: 1285 from patients (750 males and 535 females, median age 67 years old [47-99 years]) who were infected or colonized by at least one of the study bacteria, and 80 from patients with a history of exposure to antibiotics (53/80 were from patients with a history of exposure to antibiotics). A total of 1365 isolates were included in the analysis: 1285 from patients and 80 from patients with a history of exposure to antibiotics.

Table 1. In vitro activity of plazomicin and comparative agents against Gram-negative bacteria

<table>
<thead>
<tr>
<th>Pathogen</th>
<th>Plazomicin</th>
<th>Gentamicin</th>
<th>Meropenem</th>
<th>Tigecycline</th>
<th>Amikacin</th>
<th>Colistin</th>
</tr>
</thead>
<tbody>
<tr>
<td>S. maltophilia</td>
<td>99.6</td>
<td>99.2</td>
<td>96.8</td>
<td>100</td>
<td>99.6</td>
<td>100</td>
</tr>
<tr>
<td>E. cloacae</td>
<td>99.6</td>
<td>99.2</td>
<td>96.8</td>
<td>100</td>
<td>99.6</td>
<td>100</td>
</tr>
<tr>
<td>S. aureus</td>
<td>99.6</td>
<td>99.2</td>
<td>96.8</td>
<td>100</td>
<td>99.6</td>
<td>100</td>
</tr>
<tr>
<td>Staphylococcus epidermidis</td>
<td>99.6</td>
<td>99.2</td>
<td>96.8</td>
<td>100</td>
<td>99.6</td>
<td>100</td>
</tr>
</tbody>
</table>

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REFERENCES