Post Hoc Assessment of Time to Clinical Response (TTCR) Among Adults Hospitalized with Community-Acquired Bacterial Pneumonia Who Received Either Lefamulin (LEF) or Moxifloxacin (MOX) in Two Phase III Randomized, Double-Blind, Double-Dummy Clinical Trials

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INTRODUCTION

Lefamulin (LEF) is a first-in-class systemic pleuromutilin antibiotic in development for the treatment of community-acquired bacterial pneumonia (CABP). Increasingly, clinicians are relying on broad-spectrum systemic antibiotics for empirical treatment of CABP across multiple inpatient types who present with CABP, and LEF is a potential rapid and comparable alternative to fluoroquinolones with intravenous (IV) and oral (PO) formulations for patients with CABP. Against Pneumonia (LEAP) 1 and 2 clinical trials,3,4 LEF was associated with a rapid time to clinical response that was non-inferior compared to moxifloxacin (MOX) in two Phase III randomized, double-blind, double-dummy clinical trials.

METHODS

Study Design and Population

Patients were randomized to receive either LEF or MOX in the LEAP 1 and LEAP 2 studies. A total of 1049 patients were enrolled: 525 patients in LEAP 1 and 524 patients in LEAP 2. The median (IQR) duration of therapy was 4 days for patients in LEAP 1 and 4 days for patients in LEAP 2. All patients were hospitalized at baseline and received at least 24 hours of therapy (unless due to death) and were evaluable for the primary outcome of the study (time to clinical response). The primary study population included patients aged 18 years or older with pneumonia, who were hospitalized at baseline and received at least 24 hours of therapy (unless due to death) and were evaluable for the primary outcome of the study (time to clinical response). The study inclusion criteria are listed in Table 1. The primary study outcomes were defined as the time to clinical response, which was defined as ≤72 hours prior to randomization.

RESULTS (continued)

Table 4: Kaplan Meier Plot of Time to Clinical Response by Subgroup

<table>
<thead>
<tr>
<th>Subgroup</th>
<th>Median (IQR)</th>
<th>Number of At Risk</th>
<th>Number with Event</th>
<th>Log rank P</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEAP 1</td>
<td>4 (3–4)</td>
<td>458 (97.9)</td>
<td>62 (13.2)</td>
<td>=0.9849</td>
</tr>
<tr>
<td>LEAP 2</td>
<td>4 (3–4)</td>
<td>454 (97.9)</td>
<td>57 (12.4)</td>
<td>=0.9849</td>
</tr>
</tbody>
</table>

Figure 4. Kaplan Meier Plot of Time to Clinical Response by Subgroup

CONCLUSIONS

- Clinical response to LEF is rapid and comparable to MOX with response rates ≥90%.
- LEF provides an effective new IV and PO monotherapy option for empirical treatment of adults with CABP.

REFERENCES


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