**Introduction**

Asthma and chronic obstructive pulmonary disease (COPD) are common respiratory conditions that represent a considerable cost burden to the Spanish healthcare system.

- **Asthma**
  - Patients would be prescribed 500 mg amoxicillin plus 125 mg clavulanic acid for five days and 40 mg prednisolone for 10 days, respectively. It was assumed that the annual numbers of antimicrobial courses for patients within Spain were based on data from Ireland and the UK – which were assumed to be sufficiently comparable.

- **COPD**
  - The proportion of ICS + LABA FDC patients using the mid- and high-dose strengths of Symbicort® DuoResp® was based on weight- or age-weighed averaging (total 40% of patients) data for Spain, reported for December 1999.

**Objective**

- An economic model was developed from the perspective of Spanish healthcare payers to assess the impact of improved inhalation techniques when switching patients from Symbicort® Turbuhaler® (fluticasone propionate + salmeterol) to a very similar inhalation device, Accuhaler® (fluticasone + salmeterol).

**Methods**

**Model structure**

- **Table 1. Model specifications**

**Model specifications**

<table>
<thead>
<tr>
<th>Country</th>
<th>Spain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perspective</td>
<td>Third-party healthcare payer</td>
</tr>
<tr>
<td>Time horizon</td>
<td>Five years</td>
</tr>
<tr>
<td>Comparators</td>
<td>Symbicort® Turbuhaler® (fluticasone propionate + salmeterol) vs. Accuhaler® (fluticasone + salmeterol)</td>
</tr>
<tr>
<td>Eligible population</td>
<td>Prevalence-based</td>
</tr>
</tbody>
</table>

**Cost of unscheduled healthcare events**

- **Table 2. Unscheduled healthcare events associated with poor inhalation technique**

**Cost of unscheduled healthcare events**

<table>
<thead>
<tr>
<th>Event</th>
<th>Without DuoResp® Symbicort®</th>
<th>With DuoResp® Symbicort®</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitals</td>
<td>-84.455</td>
<td>-84.455</td>
<td>0</td>
</tr>
<tr>
<td>ED visits</td>
<td>-28.760</td>
<td>-28.760</td>
<td>0</td>
</tr>
<tr>
<td>Antimicrobial courses</td>
<td>-299.333</td>
<td>-299.333</td>
<td>0</td>
</tr>
<tr>
<td>OCS courses</td>
<td>-299.401</td>
<td>-299.401</td>
<td>0</td>
</tr>
</tbody>
</table>

**Cost savings resulting from differences in the proportion of patients with poor inhalation technique**

![Figure 3. Cost savings resulting from differences in the proportion of patients with poor inhalation technique](image)

**Conclusions**

- **DuoResp® Symbicort®** has the potential to offer cost savings compared with Symbicort® Turbuhaler® and Symbicort® Accuhaler® in Spain by reducing the number of patients demonstrating poor inhalation technique, and therefore decreasing the occurrence of unscheduled healthcare events.

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**References**

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