Exclusion criteria were an asthma diagnosis in the pre-index period on the index date: ICS, LABA, or LAMA-containing therapy during the pre-index period; missing demographic information or pharmacy fill for both UMEC/VI and FP/SAL, MTT, non-index therapy, or a COPD exacerbation on the index date. MTT was defined as the occurrence at least one day of overlapping supply of ICS, LABA, and LAMA.

Statistical analysis

- Recent clinical trial data suggest that long-acting muscarinic antagonists (LAMA)/LABA combination treatment can significantly improve lung function and reduce exacerbation rates compared with ICS/LABA therapy. However, little is known about how this impacts escalation to multiple-inhaled triple therapy (MITT; ICS/LABA/LAMA).
- This study examined escalation to MITT in patients initiating LAMA/LABA compared with patients receiving ICS/LABA using real-world data.
- The primary objective of the study (previously presented) was to evaluate medication adherence, measured by proportion of days covered, of unformulated/standardized (UMEC/VI) and the ICS/LABA fixed-fluticasone propionate/budesonide (FP/SAL) as initial maintenance therapy in patients diagnosed with COPD.
- A secondary study objective (the focus of this poster) was to evaluate the incidence of escalating to MITT among patients diagnosed with COPD initiating maintenance treatment with UMEC/VI compared with FP/SAL.

Methods

Study design

- This was a retrospective observational study in a population of patients diagnosed with COPD enrolled in commercial Medicare Advantage or (PAS) health plans using claims from the Optum Research Database.
- Patients ≥40 years of age who initiated once-daily UMEC/VI (62.5/25 mcg) or twice-daily FP/SAL (250/50 mcg) between April 1, 2014 and August 31, 2016 were identified. The index date was the first fill date for UMEC/VI or FP/SAL (Figure 1).

Results

- A total of 1,388 UMEC/VI and 3,202 FP/SAL initiators met all six selection criteria (Figure 2).
- The median duration of continuous enrollment of 24 months (95% CI: 22, 24, 2019) was 22 months (12 months pre-index and 10 months post-index).

Table 1. Demographics and pre-index clinical characteristics pre-and post-MITT

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>UMEC/VI (N=1386)</th>
<th>FP/SAL (N=3202)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, years</td>
<td>65.0 (10.48)</td>
<td>65.0 (10.48)</td>
<td>0.003</td>
</tr>
<tr>
<td>Gender (%)</td>
<td>51.4 (2964)</td>
<td>51.4 (2964)</td>
<td>0.849</td>
</tr>
<tr>
<td>Median (IQR)</td>
<td>65.0 (10.48)</td>
<td>65.0 (10.48)</td>
<td>0.003</td>
</tr>
<tr>
<td>Drug treatment</td>
<td>ICS+LABA+LAMA</td>
<td>ICS+LABA+LAMA</td>
<td>0.95</td>
</tr>
<tr>
<td>Mortality (%)</td>
<td>0.845 (10.48)</td>
<td>0.878 (10.48)</td>
<td>0.920</td>
</tr>
<tr>
<td>Incidence (%)</td>
<td>0.497 (10.48)</td>
<td>0.497 (10.48)</td>
<td>0.920</td>
</tr>
<tr>
<td>Median (IQR)</td>
<td>0.845 (10.48)</td>
<td>0.878 (10.48)</td>
<td>0.920</td>
</tr>
</tbody>
</table>

Figure 3. Kaplan–Meier analysis of time to initiation of MITT in the UMEC/VI and FP/SAL cohorts (intent-to-treat analysis).

In a 35-36 (monthly) analysis, UMEC/VI initiators had a significantly lower adjusted hazard ratio than FP/SAL initiators in Month 3 (P=0.003), Month 5 (P=0.003), and Month 12 (P=0.002).

Limitations

- Limitations of this study include those typically associated with claims studies, including medication use being based on observed pharmacy dispensing, which may not be representative of the patients’ actual drug-taking.

Conclusions

- Patients and COPD who initiate maintenance therapy with UMEC/VI have a 20% lower risk of MITT escalation compared with patients who initiated FP/SAL. The adjusted hazard ratio of 0.82 was similar for patients treated with FP/SAL or UMEC/VI.

References


Disclosures

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