**INTRODUCTION**

- **Overactive bladder (OAB)** is a common disabling, chronic condition characterized by urinary urgency with or without urinary incontinence, usually with associated frequency and nocturia.
- **Antimuscarinic drugs** have been the mainstay of medical therapy of OAB, but recent evidence suggests that a second generation of drugs known as **ß-3 receptor agonists** may contribute to patients coping more effectively.

**Study design**

- **Number of co-existing medications** (0, 1–3, 4–5, 6–8, >8)
- **Age category** (<46 years, 46–64 years, ≥65 years)
- **Treatment status** (experienced/naïve)

**MPR-fixed analyses:**

- **Patients classified as treatment-naïve should be regarded as “relatively” naïve, as they might have received medication before the index date to calculate time to discontinuation.**

**Adherence** was calculated by medication possession ratio (MPR) if no claims for a target OAB medication or other drug in the 3-month period (the ‘index date’) was used to categorize patients as treatment-experienced (ER/IR), solifenacin, and tolterodine ER, whilst having a low incidence of treatment-emergent adverse events.

**RESULTS**

- **Approximately 49% of patients (n=7,563) were concurrently taking one or more medications in their current prescription with mirabegron** (41.8%) than for any antimuscarinic (range 15.6–25.4%).
- **Statistically significant differences were found within each covariate** (Table 1).

**Table 3:** Persistence rates for all patients in the treatment-naïve cohort (n=13,391) (fixed proportional hazards model).

<table>
<thead>
<tr>
<th>OAB drug</th>
<th>No. of patients</th>
<th>Hazard ratio (95% CI)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mirabegron</td>
<td>7,563</td>
<td>1.000</td>
<td>* *</td>
</tr>
<tr>
<td>Oxybutynin IR</td>
<td>3,291</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Oxybutynin ER</td>
<td>3,250</td>
<td>1.539 (1.405–1.689)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Fesoterodine</td>
<td>2,291</td>
<td>1.515 (1.356–1.692)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Tolterodine ER</td>
<td>981</td>
<td>1.042 (0.923–1.174)</td>
<td>0.278</td>
</tr>
<tr>
<td>Mirabegron*</td>
<td>746</td>
<td>1.000</td>
<td>* *</td>
</tr>
</tbody>
</table>

**References**


**STUDY LIMITATIONS**

- **There was significantly less persistence in patients taking antimuscarinics in the 6-month persistence subgroup (17.7% vs. 19.6% for the index date to calculation time to discontinuation.**

**Conclusions**

- **Treatment-experienced patients demonstrated significantly better adherence to mirabegron compared to patients who have previously used an antimuscarinic (median 40.2% vs. 25.4%; p<0.05).**
- **There was no significant difference between men and women in the median MPR (25.2% vs. 25.5%, respectively, p=0.88).**

**Variability in calculated MPR**

- **Mirabegron gives the highest median and mean, but was statistically significantly higher in all comparisons (25.2% vs. 25.5%, respectively, p=0.88).**

**STUDY LIMITATIONS**

- **This was on an analysis of patients’ adherence claims, and was not possible to relate persistence to symptom severity.**

**CONCLUSIONS**

- **Mirabegron was associated with higher levels of persistence and adherence than antimuscarinics**
- **The optimum place for mirabegron in the treatment algorithm relative to antimuscarinics has not yet been established**

**REFERENCES**

- **Allison P, et al. Hamilton County, OH 2013;21-147.**

**FIGURES**

- **Fig 1:** Kaplan-Meier estimated rates of persistence on each OAB drug over time for the total study population (n=13,391)

- **Fig 2:** Persistence rate (%)

- **Fig 4:** Kaplan-Meier estimated rates of persistence on each OAB drug over time for the total study population (n=13,391)

- **Fig 5:** Relationship between individual target drugs

- **Fig 6:** Adherence with mirabegron and antimuscarinics, when comparing the fixed method for Medical Possession Ratio (MPR) medians values

- **Fig 7:** Treatment-experienced patients demonstrated significantly better adherence to mirabegron compared to patients who have previously used an antimuscarinic (median 40.2% vs. 25.4%; p<0.05).