A Discrete Choice Experiment to Determine Treatment Attribute Preferences in Treatment-Naïve Overactive Bladder (OAB) Patients in the US - #154

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Introduction

- Treatments for overactive bladder (OAB) vary in terms of routes of administration and have differing efficacy, safety, convenience and tolerability profiles.
- Little is known about how patient treatment preferences change based on OAB severity or clinical/patient characteristics.
- The objective of this study was to identify which pharmacotherapy treatment attributes are considered important by treatment-naïve patients and how these preferences change based on OAB severity or clinical/patient characteristics.

Methods

Study population
- Respondents were sampled from a large online panel of patients designed to be demographically representative of the United States general population.
- Eligible respondents were ≥18 years of age, had a self-reported physician OAB diagnosis and had never taken pharmacotherapy or received invasive treatments for OAB (i.e. treatment-naïve).

Discrete choice experiment
- The discrete choice experiment (DCE) was conducted between October and November 2017.
- Ten attribute levels were selected: identified through literature review, clinical relevance and input from patients (Figure 1).
- Validated questionnaires were administered to help characterize the respondents, including the:
  - Overactive Bladder Questionnaire Short Form assessing OAB symptom bother; and
  - Work Productivity and Activity Impairment – Specific Health Problem Questionnaire assessing work productivity.

Statistical analyses
- Mean relative preference weights were estimated using a hierarchical Bayesian approach to incorporate unobserved heterogeneity.
- Multivariable linear regression models were used to analyze differences in RI scores by demographic characteristics and disease burden-related metrics.

Results

Characteristic

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>164</td>
<td>32</td>
</tr>
<tr>
<td>Female</td>
<td>350</td>
<td>68</td>
</tr>
<tr>
<td>Age (65)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;65</td>
<td>339</td>
<td>66</td>
</tr>
<tr>
<td>≥65</td>
<td>175</td>
<td>34</td>
</tr>
<tr>
<td>Severity</td>
<td></td>
<td></td>
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<tr>
<td>Mild</td>
<td>185</td>
<td>36</td>
</tr>
<tr>
<td>Moderate/Severe</td>
<td>329</td>
<td>64</td>
</tr>
<tr>
<td>Physician diagnosed OAB</td>
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<td></td>
</tr>
<tr>
<td>Yes</td>
<td>184</td>
<td>36</td>
</tr>
<tr>
<td>No</td>
<td>330</td>
<td>64</td>
</tr>
</tbody>
</table>

Patient characteristics
- Among the 18,445 individuals invited to participate, 776 met the eligibility criteria and 514 completed the online survey.
- Sixty-six percent of respondents were ≤65 years of age and 68% were female. Sixty-four percent of respondents reported having moderate/severe OAB symptoms; however, only 36% had a self-reported physician OAB diagnosis.

DCE results
- Drug delivery method was the most important attribute, with respondents stating a strong preference for oral and patches over injectable therapies (RI: 18.8 ± 8.5), followed by reduced daytime micturition frequency (RI: 11.9 ± 4.5) and lower out-of-pocket costs (RI: 11.3 ± 7.6) (Figure 1).
- Results of multivariable linear regression analyses indicated:
  - Females respondents considered drug delivery method to be more important compared to males (parameter estimate (PE): 2.57; 95% confidence interval (CI): 0.29-4.86).
  - Respondents with greater symptom bother were less likely to prefer injectables (PE: 0.07; 95% CI: 0.91 - 0.03); symptom control of incontinence was most important to respondents who reported greater work productivity loss (PE: 0.04; 95% CI: 0.07- 0.01); and out-of-pocket cost was most important to respondents with moderate/severe OAB (PE: 2.38; 95% CI: 0.90-3.85).

Figure 1: Treatment attribute grid

Figure 2: Mean relative importance scores, overall

Conclusion

- In a treatment-naïve OAB population, the route of administration was the most important attribute followed by effect on daytime micturition frequency and patient out-of-pocket cost.
- A greater understanding of the relationships between patient pharmacotherapy treatment preferences and patient characteristics may enhance the importance of incorporating patient value in treatment decisions.

References

(2) Reilly et al. (1993) Pharmacoeconomics. 4(5):353-363

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