

HOW RESPONSIVE IS THE OVERACTIVE BLADDER QUESTIONNAIRE (OAB-Q) TO CHANGES IN URGENCY EPISODES, MICTURITIONS, AND INCONTINENCE?

Aims of Study

The purpose of this study was to examine the responsiveness of the Overactive Bladder Questionnaire (OAB-q), which assesses symptom bother and health-related quality of life (HRQL) among OAB patients. The psychometric properties of the OAB-q were examined among patients with OAB symptoms and it was shown to be reliable and valid. The current study evaluates the OAB-q's responsiveness to change in frequency of urgency episodes, micturitions, and incontinence episodes during antimuscarinic therapy for OAB.

Methods

OAB patients were treated with tolterodine extended release 4 mg once daily for 12 weeks. Patient evaluations were conducted at baseline, 4 and 12 weeks. The OAB-q includes an 8-item symptom bother scale as well as 25 HRQL items that form 4 subscales (coping, concern, sleep, social interaction) and a total HRQL score. All scores are summed and transformed into a 0 – 100 scale. After the transformation, higher symptom scores are indicative of increasing symptom bother while higher HRQL scores are indicative of better HRQL.

Patient 3-day diaries were used to assess the frequency of urgency episodes, micturitions, and incontinence episodes. Patients' subjective perception of their current urinary problems was assessed with a single item, rated on a 6-point scale ranging from "no problems at all" to "many severe problems." In addition, patient and physician assessments of treatment benefit were obtained at 4 and 12 weeks. Change scores for the OAB-q and micturition diaries were calculated for week 4 and week 12 visits. Responsiveness of the OAB-q subscales and total score was examined with effect sizes and comparisons of OAB-q change scores with other measures of treatment efficacy using ANOVAs, t-tests, and correlations.

Results

A total of 865 patients completed the 12-week study. The mean age was 61 years, and the participants were 73% female and 89% Caucasian. Significant improvements occurred in all OAB-q subscales from baseline to 4 weeks and were maintained through week 12 with further improvements noted. The OAB-q was highly responsive with effect sizes ranging between 0.44 (social interaction) and 1.2 (symptom bother). A reduction of 3 or more urgency episodes/day resulted in significant changes in all OAB-q subscale scores. A 25% or greater improvement in urgency episodes resulted in significant score improvements for all of the OAB-q scales except social interaction. A reduction by 3 or more micturitions/day resulted in significant score changes in all OAB-q subscales ($p < 0.0001$). The subscales of coping and sleep as well as HRQL total score had significant score changes (20 point change) with a reduction of 1 micturition/day. A 25% improvement in micturition frequency was associated with a significant score change (20 point plus change) in all subscales except social interaction. A reduction of 1 or more incontinence episodes/day also corresponded to significant OAB-q score changes (13 to 34 point changes, $p < 0.05$). A 50% reduction in incontinence episodes resulted in significant score changes of 25 to 30 points ($p < 0.01$) for all OAB-q subscale scores except in social interaction. Improvements in HRQL and symptom bother as measured by the OAB-q were associated with significant changes patients' perception of bladder condition and patients' and physicians' perception of treatment benefit. Additionally, OAB-q subscale change scores were significantly correlated with changes in urgency episodes, micturitions, and incontinence episodes.

Conclusions

The OAB-q was a highly responsive measure of HRQL among patients receiving treatment for overactive bladder. This is the first report demonstrating responsiveness of the OAB-q in relation to reduction in urgency, as well as micturition frequency and incontinence, following antimuscarinic therapy. Based on these results, the OAB-q appears to be a useful tool for clinical trials that test treatments of OAB.