

## A SWEDISH PROSPECTIVE, OBSERVATIONAL STUDY OF HEALTH RELATED QUALITY OF LIFE OVER 6 MONTHS IN PATIENTS WITH OVERACTIVE BLADDER STARTING TREATMENT WITH TOLTERODINE SR.

### Hypothesis / aims of study

Overactive bladder (OAB) is a chronic condition with a profound impact on health related quality-of-life (HRQL). The purpose of this study was to measure changes in OAB-symptoms and self-perceived HRQL over 6 months in patients treated with tolterodine slow-release formulation (SR) in a naturalistic setting. In addition, the proportion of responding patients, the proportion of patients discontinuing tolterodine, and the change in the use of incontinence pads over 6 months was explored.

### Study design, materials and methods

The study had an open, prospective, observational design. Women and men 18 years and older, starting treatment with tolterodine SR for the treatment of OAB were asked to complete the Overactive Bladder Questionnaire (OAB-q) [1] at baseline, month 3 and month 6.

The OAB-q is a self-administered, disease-specific instrument designed to assess the impact of OAB symptoms on HRQL. The 33-item questionnaire contains a symptom bother and a HRQL scale. The HRQL scale consists of 4 subscales (domains); Coping, Concern, Sleep and Social interaction. Each item is rated on a 6-point Likert scale ranging from "not at all" to a "a very great deal" for symptom bother scale and "none of the time" to "all of the time" for the items in the four subscales. All scale scores are transformed to a 0-100 point scale. In addition the total score of the OAB-q is calculated. The instrument has been shown to be reliable, valid and responsive [1]. The minimally important difference (MID) has been estimated to an improvement of 10 points [2], applicable for all scales of the OAB-q.

In addition the number of pads used per week and discontinuation of the study drug were to be recorded by the patient if applicable.

The protocol requested all patients to complete the questionnaire and the additional questions at baseline, month 3 and month 6 regardless of discontinuation of the study medication or not. The full analysis set with last-observation-carried-forward was analysed as well as the completer population. The Completer population was defined as the patients still on tolterodine treatment at month 6. The statistical analyses comprised the change from baseline to 3 months and 6 months in OAB-q symptom bother scale score, the OAB-q HRQL total score and the four OAB-q subscales. The changes were analysed using two-sided paired t-test. In addition, the 97.5% confidence interval (CI) was calculated.

### Results

Altogether 235 patients, 211 women and 24 men, mean age 60.6 years (30-87), were recruited at 21 sites fairly evenly distributed throughout the country. The number of patients who completed the OAB-q was 220 and 169 patients at 3 and 6 months, respectively. At month 6, a total of 48 of the patients completing the questionnaire had discontinued treatment with tolterodine, thus the Completer population consists of 121 patients, i.e. 51.5% of the full analysis set. The main reason for discontinuation was side effects.

The mean decrease from baseline in symptom bother score (97.5% CI) was 19.6 (17.1-22.1) and 19.3 (16.6-22.0) ( $p < 0.0001$ ) at 3 and 6 months, respectively for the full analysis set. The corresponding decrease for the Completer population was 19.9 (22.6-29.8) and 21.2 (21.5-27.9) ( $p < 0.0001$ ).

Significant improvement ( $p < 0.0001$ ) was also seen in the OAB-q total HRQL-score with an increase of 15.5 at month 3 and of 15.9 at month 6 for the full analysis set. A corresponding improvement of 19.9 at month 3 and of 20.2 at month 6 was seen for the Completer population ( $p < 0.0001$ ). All four HRQL-domains also improved significantly ( $p < 0.0001$ ) over time in both the full analysis set and the Completer population. Figure 1 shows the change over time in the OAB-q scales for the full analysis set.

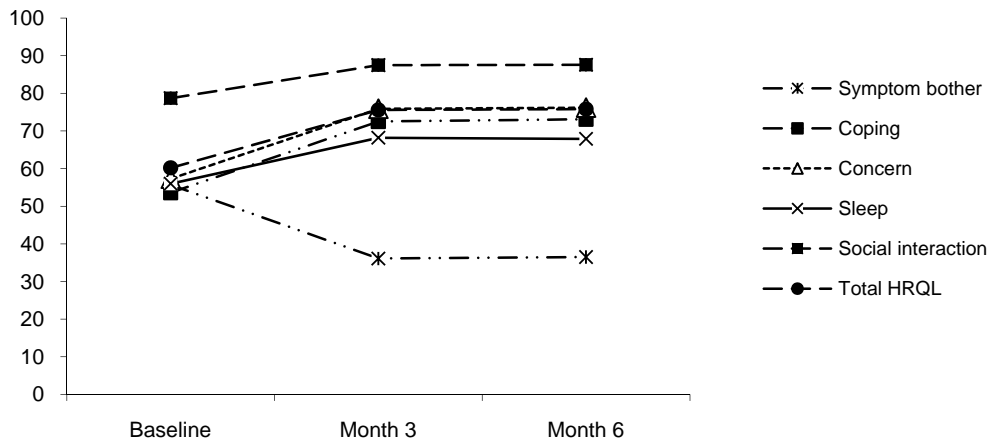


Figure 1.

OAB-q sub-scale scores over time in the full analysis set

The proportion of responders, i.e. with an improvement of at least 10 points, in the full analysis set was 64% for symptom bother score and 34% to 60% for the various HRQL domains at 6 months. The corresponding figures for the Completers were 80% for symptom bother and 43% to 72% for the HRQL-domains (Figure 2).

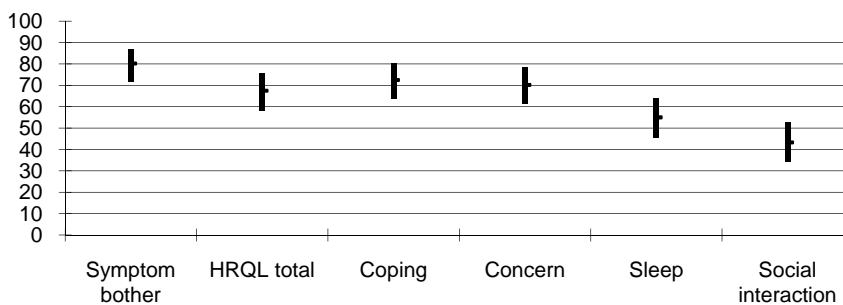


Figure 2. Proportion of responders in the Completer population at month 6 with 95% Confidence Interval

Overall, 140 patients were using pads at enrollment. The median number used per week was 14 with a range of 1-70. After 3 months the number of patients using pads had decreased to 109. The median number of pads used was 10 (1-50). At month 6 the number of patients using pads was 87 with a median number of pads per week of 10 (1-42). The change in the proportion of patients using pads between baseline and month 3 and between baseline and month 6 were significant ( $p < 0.05$ ) in both populations. The decrease in number of pads used was also statistically significant ( $p < 0.0001$ ) in both populations at both time points.

#### Interpretation of results

The results indicate that the patients studied experience symptom amelioration already after 3 months and that improvement is sustained up to 6 months. Low adherence is a problem with many long-term therapies and in this study overall discontinuation rate was 50%. The results emphasises the need for strategies to improve adherence also in this group of patients.

#### Concluding message

OAB patients starting treatment with tolterodine SR improve significantly their OAB symptoms and self-perceived HRQL over 6 months.

#### References

1. Coyne K, Revicki D, Hunt T et al. Psychometric validation of an overactive bladder symptom and health-related quality of life questionnaire: the OAB-q. *Qual Life Res* (2002) 11;563-574.
2. Coyne KS, Matza LS, Thompson CL et al. Determining the importance of change in the overactive bladder questionnaire. *J Urology* (2006)176;627-632.

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**HUMAN SUBJECTS:** This study was approved by the Regional Ethics Committee in Gothenburg, Sweden and followed the Declaration of Helsinki Informed consent was obtained from the patients.