

VALIDATION OF AN OAB SCREENER IN A PRIMARY CARE PATIENT POPULATION IN THE US

Hypothesis/aims of study

Overactive bladder (OAB), a symptom-based condition characterized by urinary urgency with or without urge incontinence and usually with increased urinary frequency and nocturia [1], has been estimated to affect 10% to 20% of the population [2,3]. According to 1 study, 73% of patients with OAB do not take any medication for the condition [2]. The goal of this study was to validate a screening tool to identify patients who are bothered by urinary symptoms consistent with OAB in a primary care setting.

Study design, materials and methods

The 8-item Symptom Bother scale of the OAB-q was evaluated as an OAB screener. Responses to the question, "How bothered are you...?" by particular symptoms were answered on a 6-point scale ranging from 0 (not at all) to 5 (a very great deal). Patients were recruited from 12 primary care practices and 1 general gynecology practice as they presented for regularly scheduled appointments. Pregnant patients or patients with a cognitive or other impairment that would interfere with completing a self-administered questionnaire were excluded. If the patient agreed to participate, they completed the screener, summed their responses, and provided the study staff with the completed screener. All screened patients were then asked 4 questions by the clinician regarding urinary symptoms (ie, frequency, urgency, nocturia, incontinence), 1 question regarding the reason for the office visit, and 3 demographic questions. If the patient had positive responses on any of the 4 urinary symptoms questions, additional questions regarding lifestyle and coping issues were asked. Upon completion of the clinician questions and based upon clinician opinion, the patient was diagnosed as "No OAB," "Possible OAB," or "Probable OAB."

All analyses were performed utilizing SAS (version 8.2). All statistical tests were 2-tailed and conducted with type I error probability fixed at 0.05. Descriptive statistics, chi-square tests, *t*-tests, and analysis of variance were used to evaluate the data. A series of multivariable logistic regressions were performed to assess the ability of the screener to identify patients diagnosed with OAB.

Results

1299 patients were enrolled in this study; 1260 had complete data for analysis. Mean patient age was 52±17 years, 62% were women, and 89% were Caucasian. Patients experienced an average of 5.7±3.2 urinations per day and 1.3±1.2 urinations per night. Twenty-two percent of patients experienced urinary urgency; 18% experienced urge incontinence. The prevalence of Probable OAB was 12%, and Possible OAB was 20%. There were significant differences ($p < 0.0001$) in the responses to the 6 coping behavior questions among patients diagnosed with Probable OAB, Possible OAB, or No OAB with the Probable OAB patients reporting the highest use of all coping behaviors. The most prevalent comorbid condition among male and female patients with OAB was an enlarged prostate (44%) and postmenopausal status (58%), respectively. The screener performed well with little missing data (0.2%–0.6%); high inter-item and item-to-total correlations ($r = 0.42$ – 0.86 ; p values < 0.001). The logistic regression models controlled for age and gender. The dependent variable was OAB diagnosis comparing No OAB versus Probable OAB. The c-index of this model was 0.96 with good model fit and a sensitivity and specificity of 98.0 and 82.7, respectively. For screener scores > 8 (range, 0–48), the odds ratio for having Probable OAB was 95.7 (95% CI: 29.3–312.0).

Interpretation of results

Simple screening methods can be used to screen for OAB in a primary care setting. An 8-item screener is highly successful in identifying patients with symptoms of probable OAB.

Concluding message

The OAB 8-item screener appears to perform well in identifying OAB patients in a primary care patient population. There appears to be a large unmet need among patients with bothersome OAB symptoms in primary care. Primary care physicians and patients would benefit from educational efforts to increase awareness of OAB symptoms and potential treatments.

References

1. The standardisation of terminology of lower urinary tract function: report from the Standardisation Sub-committee of the International Continence Society. *Am J Obstet Gynecol* 2002;187:116-126.
2. How widespread are the symptoms of an overactive bladder and how are they managed? A population-based prevalence study. *BJU Int* 2001;87:760-766.
3. Prevalence and burden of overactive bladder in the United States. *World J Urol* 2003;20:327-336.

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