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PATTERNS AND PREDICTORS OF RESTARTING OVERACTIVE BLADDER MEDICATIONS

Hypothesis / aims of study
Overactive bladder (OAB) is a common condition that negatively affects health-related quality of life (HRQL). Effective prescription medications are available for reducing OAB symptoms. However, as with other chronic conditions, patient adherence is typically low. Whether patients who discontinue OAB medication ever restart treatment and factors that influence the decision to resume treatment have not been well studied. The aim of this study was to identify patterns and predictors of restarting prescription medications for OAB.

Study design, materials and methods
Responses from a 3-part patient-reported outcomes survey of households from the National Family Opinion organization were used. A cross-sectional survey was conducted to identify adults with OAB from 260,000 US households (phase 1). Respondents with a history of antimuscarinic use for OAB symptoms were evaluated with a second survey (phase 2, n=6577) to assess demographic and clinical characteristics, OAB symptom bother, HRQL, beliefs about OAB treatment, and patterns of OAB medication use. Respondents were surveyed again 6 months later (phase 3, n=3387). Multivariate logistic regression was used to identify predictors of restarting OAB medication between phases 2 and 3. All potential predictors were screened in bivariate models because of the large number of potential predictors and the small numbers of patients who restarted medications. Variables with $p<0.20$ were entered into a backward elimination process, and only those predictors with $p<0.10$ were kept in the model. Results are presented as adjusted odds ratios (OR).

Results
The response rate for phase 1 was 63% (n=162,906). Of the 6577 phase 1 respondents with a history of antimuscarinic use, 5392 (82%) returned usable surveys at phase 2; 2838 out of 3387 respondents (84%) returned usable surveys at phase 3. Demographic characteristics among phase 2 and phase 3 respondents were similar. Mean (standard deviation) age was 63 (16) and 64 (15) years and most respondents (78% and 81%) were female in phases 2 and 3, respectively.
Among the 5392 phase 2 respondents, 1322 (25%) reported discontinuing their OAB medication. 1194 of these 1322 respondents who reported discontinuing OAB medication at phase 2 also returned surveys at phase 3. Notably, 211 (18%) of these 1194 respondents had restarted a prescription OAB medication by phase 3. Bivariate analyses revealed that several variables were crudely associated with a higher likelihood of restarting OAB medication**,** including being bothered “quite a bit or more” by frequency, urgency, incontinence, or urgency urinary incontinence; having been diagnosed with incontinence; having ≥1 incontinence episode within the past 4 weeks; having multiple comorbid conditions; having mild or greater depression; and seeing a health provider for symptoms. Multivariate regression models revealed that the following variables were independent predictors (P<0.10) of restarting OAB medication: employment status other than full time, not having a diagnosis of OAB, ≥1 incontinence episode during the previous 4 weeks, patient belief that treating bladder problems usually requires taking several pills a day, and patient belief that the side effects of prescription bladder medication are not often severe **(Table)**.

Interpretation of results
Although limited by the small number of participants, the results suggest that patients may be more receptive to prescription OAB medications if healthcare providers reinforce the need to continue therapy and foster realistic expectations about treatment efficacy and adverse events. Some variables that were found to be independently associated with increased likelihood of restarting OAB prescription medication, such as employment status other than full-time, having an OAB diagnosis, and patient belief that treating bladder problems usually requires taking several pills a day, were unexpected and warrant further investigation.

Concluding message
To our knowledge, this is the first report of restart rates among patients who have discontinued use of prescription OAB medications. The analysis was limited by the small number of patients who restated therapy between phases 2 and 3. This study identified several predictors of restarting prescription medications for OAB.

Table 2. Variables Independently Associated (P<0.10) With Restarting OAB Medication – Multivariate Logistic Regression Results

Variable	Referent	OR (95% CI)	*P* Value
Employment status Other	Full-time	1.99 (1.15, 3.45)	0.01
Diagnosis of bladder condition OAB	None	0.68 (0.44, 1.05)	0.08
Incontinence episodes (past 4 wk) ≥1	None	1.60 (1.00, 2.57)	0.05
Patient belief that treating bladder problems usually requires taking several pills a day True	False	2.13 (1.26, 3.61)	0.005

Patient belief that side effects of OAB prescription medications are often severe True	False	 0.43 (0.24, 0.78)	 0.006

CI=confidence interval; OAB=overactive bladder; OR=odds ratio.

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HUMAN SUBJECTS: This study did not need ethical approval because Per Western IRB - regarding the OAB Medication Use Survey - "It involved respondent surveys and a limited number of phone interviews with non-respondents." but followed the Declaration of Helsinki Informed consent was obtained from the patients.