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PATTERNS AND PREDICTORS OF DISCONTINUING OVERACTIVE BLADDER **MEDICATIONS**

Hypothesis / aims of study: Overactive bladder (OAB) is prevalent and negatively affects health-related quality of life. Although medications are available that can effectively reduce OAB symptoms, patient adherence to OAB medication is typically poor. Within a year of initiation, only 1 in 5 patients continue OAB medication. The objective of this analysis was to identify patient characteristics predictive of self-reported discontinuation of OAB medications.

Study design, materials and methods: We used evaluable data from the 3-phase OAB Symptom Bother and Medication Use Survey, which was administered to US households from the National Family Opinion organization. In phase 1, a cross-sectional screening survey was sent to a representative sample of 260,000 US households to identify adults with probable OAB. Respondents with a history of antimuscarinic use for OAB were sent a detailed survey in phase 2 to assess demographic and clinical characteristics, OAB symptom bother, beliefs about OAB and its treatment, and patterns of antimuscarinic use. Six months later, respondents were resurveyed in phase 3 to assess changes in parameters measured at phase 2. Multivariate regression was used to identify demographic and clinical characteristics and beliefs associated with the discontinuation of antimuscarinics between phases 2 and 3. Logistic regression was used to calculate odds ratios (OR) and 95% confidence intervals (CI).

Results: Survey response rates were 63% for phase 1 (n=162,906), 82% for phase 2 (n=5392), and 84% for phase 3 (n=2838). Demographics for respondents in phases 2 and 3 were similar. The majority of respondents in phases 2 and 3 were women (78% and 81%, respectively). At phase 2 and 3, 49% and 52% of respondents, respectively were 65 years or older. Among phase 2 respondents, 1581 (29%) were current users of antimuscarinics; at phase 3, 1040 (66%) of these respondents continued using these agents, 261 (17%) had switched to another antimuscarinic, and 280 (18%) had discontinued. Multivariate regression showed that the following variables were significantly and independently associated with a greater likelihood of discontinuation: smoking (OR, 1.80; 95% CI, 1.2-2.8); uncertainty about whether treating OAB requires taking pills several times a day (OR, 1.71; 95% CI, 1.1-2.7); belief or uncertainty about whether the side effects of antimuscarinics are often severe (OR, 2.11; 95% CI, 1.3-3.3 and OR, 1.76; 95% CI, 1.2-2.5, respectively); and being bothered "quite a bit or more" by a sudden urgency to urinate (OR, 1.54; 95% CI, 1.1–2.3). Taking 3–4 (OR=0.57, 95% CI, 0.4–0.9), 5–7 (OR=0.58, 95% CI, 0.4–0.9), or ≥8 (OR, 0.45; 95% CI, 0.3–0.7) prescription medications at phase 2 was significantly associated with a lower likelihood of discontinuation. Neither monthly out-of-pocket prescription expenses nor having prescription insurance significantly affected the likelihood of OAB medication discontinuation.

Interpretation of results: The small number of patients who discontinued between phases 2 and 3 imposed a limit on the number of variables that could be included in the final multivariate regression analysis. Despite this limitation, this study provided information about predictors of self-reported discontinuation of OAB medication, such as smoking, patient beliefs, and symptom bother, that are not typically available from claims databases. Smokers and patients who take few or no other medications are at high risk for discontinuation of OAB medication. Because respondents in phase 2 included both short-term and long-term users of OAB medication, the discontinuation rate at 6 months is less than would be expected if all respondents had been new to OAB medication use.

Concluding message: This study identified smoking, patient beliefs about OAB medication

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dosing regimens and side effects, and a high level of symptom bother associated with urgency as predictors of selfreported discontinuation of OAB medication. Patient adherence to OAB medication therapy might be improved with better information about the availability of

once-daily OAB medication, realistic expectations of OAB treatment efficacy and side effects, and attention to persistent bother from symptoms of urgency.

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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.