

## MEN AND WOMEN WITH OVERACTIVE BLADDER SYMPTOMS REPORT HIGHER PREVALENCE OF DEPRESSION AND LOWER QUALITY OF LIFE: RESULTS FROM THE EPIC STUDY

### Hypothesis / aims of study

A multinational study evaluated the prevalence and burden of overactive bladder (OAB) symptoms using the current International Continence Society (ICS) definition of OAB. This subanalysis evaluates depressive symptoms and health-related quality of life (HRQL) in individuals who reported OAB symptoms compared to those without OAB symptoms.

### Study design, materials, and methods

A cross-sectional, population-based survey of adults (aged  $\geq 18$  y) was conducted in Sweden, Italy, Germany, the United Kingdom, and Canada. Computer-assisted telephone interviews were conducted with a geographically stratified random sample of the population (N=19,165). OAB and urinary incontinence (UI) were defined according to 2002 ICS definitions. Women who were pregnant and individuals who thought they may have a urinary tract infection were not eligible for the nested case-control study. Cases were individuals with OAB symptoms and controls were randomly selected from individuals without OAB symptoms within the cohort age and gender categories. The EuroQoL Instrument (EQ-5D), a 5-domain generic HRQL instrument (mobility, self-care, usual activities, pain/discomfort, anxiety/depression) was administered to measure overall HRQL (range of weighted utility scores, 0–1). The Center for Epidemiologic Studies–Depression (CES-D) scale was used to measure depressive symptoms (score range, 0–60). Lower EQ-5D scores indicated poorer HRQL, and a CES-D score  $\geq 21$  indicated major depressive symptoms. All survey participants were asked to report whether they had ever been diagnosed with depression.

### Results

The analyses included 1487 OAB cases (66.2% women; mean age, 54.1 y) and 3018 controls (50.5% women; mean age, 49.5 y). The OAB population reported more depressive symptoms compared to controls and OAB cases with UI were consistently more affected than those without UI (**Table 1**). Men with OAB and UI reported depression as frequently as women with the same symptoms (**Table 1**).

Similarly, individuals in the OAB population (with and without UI) reported significantly lower EQ-5D scores when compared to controls (**Table 1**). The proportion of the population reporting any impairment within each of the EQ-5D domains was higher for patients with OAB compared with controls and was most pronounced for those with OAB and UI (**Table 2**).

### Interpretation of results

This was the first multinational, population-based study to measure generic HRQL and depressive symptoms using validated questionnaires and the current ICS definition of OAB. Individuals with OAB symptoms had poorer HRQL, more depressive symptoms, and higher proportion of self-reported depression diagnosis compared with controls. Diminished HRQL and increased depressive symptoms were more pronounced for patients with UI.

### Concluding message

Increased depressive symptoms and lower HRQL are reported among individuals with OAB compared with individuals without OAB.

**Table 1. EQ-5D, CES-D, and Self-reported Depression Diagnosis in Controls and OAB Cases With and Without UI by Sex**

	EQ-5D Mean	CES-D Mean	CES-D $\geq 21$ , %	Self-report Depression Diagnosis, %
<b>Men</b>				
Controls (n=1495)	0.92	5.37	3.5	4.3
OAB without UI (n=349)	0.89	6.85*	5.0	9.1*
OAB with UI (n=156)	0.81*	11.69*	19.3*	18.6*
<b>Women</b>				
Controls (n=1523)	0.89	6.16	4.7	9.1
OAB without UI (n=446)	0.84*	8.37*	8.4*	14.9*
OAB with UI (n=536)	0.80*	10.53*	15.4*	18.9*

\* $P \leq 0.05$  for OAB without UI vs controls or OAB with UI vs controls within sex.

**Table 2. Percentages of Patients Reporting Any Impairment Within Each EQ-5D Domain**

EQ-5D Domain					
	Mobility	Self-Care	Usual Activities	Pain/	Anxiety/
<b>Men</b>					
Controls (n=1495)	8.6	2.4	4.8	21.9	11.4
OAB without UI (n=349)	12.6*	3.7	7.1	25.3	17.9*
OAB with UI (n=156)	20.5*	12.2*	17.3*	39.7*	29.5*
<b>Women</b>					
Controls (n=1523)	9.7	1.9	5.3	25.2	18.7
OAB without UI (n=446)	18.2*	4.0*	10.3*	30.5*	29.9*
OAB with UI (n=536)	24.6*	5.6*	15.9*	39.4*	31.5*

\* $P \leq 0.05$  for OAB with UI vs controls and OAB without UI vs controls within sex.

**FUNDING:** Pfizer, Inc.

**DISCLOSURES:** Irwin: Pfizer; Milsom: Pfizer, Astellas, Novartis; Reilly: Pfizer; Hunnskaar: Pfizer, Lilly, Boehringer; Coyne: Pfizer; Kopp: Pfizer; Herschorn: Pfizer; Kelleher: Pfizer, Novartis, UCB, Astellas; Hampel: Pfizer; Abrams: Pfizer, Novartis, Ferring

**HUMAN SUBJECTS:** This study was approved by the Regional Ethics Committee in Gothenburg, Sweden (diary# 305-05); Sunnybrook & Women's College (for Canadian English); IRB Services (for Canadian French) and followed the Declaration of Helsinki informed consent was obtained from the patients.