

## THE CO-PREVALENCE OF CHRONIC CONSTIPATION AND FAECAL INCONTINENCE WITH OVERACTIVE BLADDER (OAB)

**Hypothesis / aims of study:** Overactive bladder (OAB) is defined as storage LUTS characterized by urinary urgency, with or without urgency urinary incontinence (UUI), usually with increased daytime frequency and nocturia (1, 2). Little is known about the prevalence of constipation symptoms in men and women with OAB and the extent to which symptoms such as urinary urgency and UUI may be a physical consequence of constipation or a co-occurring symptom of altered autonomic nervous system functioning. The primary aim of this study was to ascertain the prevalence of chronic constipation and faecal incontinence (FI) among patients with OAB.

### Study design, materials and methods:

A cross-sectional, population-representative sample of men and women from the US age 40 or older were recruited via the internet. Nineteen lower urinary tract symptoms (LUTS) symptoms with Likert scale responses of LUTS frequency (“never” to “almost always”) were assessed and OAB was determined by the presence of urinary urgency or urinary urgency incontinence (UUI). The presence of urinary urgency was defined as a response  $\geq$  “sometimes” to the following question: “During the past 4 weeks, how often have you had a sudden need to rush to urinate? By sudden need to rush to urinate we mean a sudden intense feeling of urgency where you feel you must urinate immediately.” Presence of UUI was a “yes” response to a question: “During the past 4 weeks, did you leak urine in connection with a sudden need to rush to urinate?” Participants with other non-OAB LUTS (e.g., weak stream, terminal dribble, straining) at least “sometimes” or more were not included in this subgroup analysis. Analyses were also conducted using a cutpoint for urinary urgency of  $\geq$  “often”. Chronic constipation was evaluated using Rome III criteria. FI was assessed with the question: “How often do you experience the accidental loss of stool?” with response options ranging from “Never” to “Almost always”. A response  $\geq$  “rarely” was considered to be FI.

### Results:

The response rate for the survey was 62.2% with a final sample of 2000 (927 men, 1073 women). Mean age was 56.1 for men and 56.5 for women. Race was representative of the US census: 74.7% of men and 78.0% of women were white, 10.5% and 9.6% were black; and 10.4% and 7.9% were Hispanic, respectively. The prevalence of OAB defined as urinary urgency “ $\geq$ sometimes” was 26.1% in men and 41.2% in women. The overall prevalence of chronic constipation was 15.3% in men and 26.2% in women. Constipation rates differed as a function of OAB status; in men, 22.3% of respondents with OAB  $\geq$  sometimes were constipated versus 12.8% with no OAB ( $p=0.0004$ ) (Table). In women, 35.8% with OAB and 19.6% without OAB were constipated ( $p<.0001$ ). These differences remained when OAB was defined as OAB  $\geq$  often ( $p<.0001$  for men and women). Men with OAB were more likely to be constipated if they were of Black or Hispanic ethnicity ( $p=.0001$ ), had higher levels of education ( $p<.0001$ ), or had comorbid depression ( $p=.03$ ), heart attack ( $p<.001$ ), or prostate cancer ( $p<.01$ ). Women with OAB were more likely to be constipated if they reported depression ( $p<.05$ ) or heart arrhythmia ( $p=.0013$ ) as comorbid medical conditions. FI was reported by 16.8% and 21.9% of men and women, respectively. Both men (28.9%) and women (32.4%) with OAB were significantly more likely to report FI than those without OAB, 12.5% and 14.6% for males and females, respectively ( $p<.0001$  for both sexes).

### Interpretation of results:

Chronic constipation is common among men and women with OAB, with 15% of men and 26% meeting Rome III criteria for chronic constipation.

### Concluding message:

The presence of constipation and FI should be evaluated and treated in patients with OAB to optimize treatments.

**Table 1. Constipation and Faecal Incontinence by OAB status**

	No OAB	OAB sometimes	$\geq$ P-value
<b>Males</b>			
Met Rome III Criteria (n, %)	88 (12.8%)	54 (22.3%)	0.0004
Faecal Incontinence (n, %)	85 (12.5%)	70 (28.9%)	<.0001
<b>Females</b>			
Met Rome III Criteria (n, %)	123 (19.6%)	158 (35.8%)	<.0001
Faecal Incontinence (n,%)	92 (14.6%)	143 (32.4%)	<.0001

<sup>†</sup> All N's presented are weighted; subgroups may or may not equal total N due to rounding or weighted values.

## References

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<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	Yes
<i>Specify Name of Ethics Committee</i>	Essex IRB
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes