

International Burden of Incontinence Study (IBIS): Association Between Incontinence Severity and Healthcare Utilization

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BACKGROUND

- It is estimated that nearly \$13 billion is spent annually on OAB-related costs in the United States, and anywhere from €269 to €706 per patient annually in Europe.^{1,2}
- It has been hypothesized that urinary incontinence largely impacts this cost with incontinent individuals found to be more likely to utilize healthcare resources compared to dry individuals.³
- The IBIS study assesses health-related quality of life and healthcare burden associated with idiopathic overactive bladder (iOAB) in the urinary incontinent sub-population. Specifically, this study evaluates health care resource utilization (HRU), health-related quality of life, work productivity, treatment seeking behavior, and treatment options for OAB patients.

OBJECTIVES

- Describe treatment seeking behavior among individuals with iOAB across Australia, Canada, France, Germany, Italy, Spain, United Kingdom, and the United States.
- Assess the association between incontinence severity and HRU among individuals with iOAB.

METHODS

Study Design

A cross-sectional online survey was completed by individuals with iOAB residing in the United States, Canada, and Europe (France, Germany, Italy, United Kingdom, Spain), and Australia between December 2012 and March 2013. Respondents were recruited from the Quintile patient community (e.g., MediGuard.org) and Quintile digital outreach partners. This study was approved by the Ethical and Independent institutional review board on October 18th, 2012.

METHODS (continued)

Study Participation Criteria:

- Inclusion: signed informed consent; adult aged ≥ 18 years; predominantly non-stress iOAB; had at least one incontinence episode in the past 12 months at the time of screening.
- Exclusion: neurologic diagnosis or history; current pregnancy; predominantly stress urinary incontinence symptoms; history of bladder or prostate cancer; interstitial cystitis; history of bladder stone; history of bladder reconstructive surgery; bladder obstruction.

Study population

A total of 1,341 individuals (US 356; UK 184; Canada 150; Australia 254; France 100; German 98; Italy 99; Spain 100) completed the survey.

Data Collection

Patient self-reported on-line cross-sectional survey data were collected.

Measures

Healthcare resource utilization included the total number of diagnostic tests (urinalysis, blood test, residual urine volume test, urodynamic testing, bladder ultrasound, cystoscopy), healthcare provider visits (primary care doctor, specialty doctor, home nurse, psychologist, physical therapist), and healthcare facility visits (outpatient and inpatient facilities) over the past 6 months.

Incontinence severity groups were categorized into having an average of 0, 1, or >1 urinary incontinence episodes per day in the past 3 days at the time of screening.

Statistical Analyses:

Descriptive analyses on diagnostic test use, healthcare provider visits, outpatient visits, and inpatient stay duration based on incontinence severity groups were performed.

RESULTS

Table 1: Study Sample Characteristics

Country	Age Mean (SD)	Female N (%)	Employment Status N % employed	Number of co-morbidities Mean (SD)
Global (N=1341)	54.5 (14.3)	948 (70.7%)	546 (40.7%)	3.5 (2.7)
Australia (N=254)	54.2 (14.3)	221 (87.0%)	87 (34.3%)	3.9 (2.9)
Canada (N=150)	58.1 (12.1)	109 (72.7%)	60 (40.0%)	3.6 (2.7)
France (N=100)	50.0 (13.9)	55 (55.0%)	55 (55.0%)	2.4 (2.3)
Germany (N=98)	49.0 (13.5)	57 (58.2%)	56 (60.2%)	3.5 (2.7)
Italy (N=99)	49.2 (16.5)	63 (63.6%)	31 (31.3%)	2.2 (1.9)
Spain (N=100)	44.6 (14.5)	58 (58.0%)	42 (42.0%)	2.5 (2.5)
United Kingdom (N=184)	57.0 (13.3)	130 (70.7%)	60 (32.6%)	3.6 (2.2)
United States (N=356)	59.2 (12.2)	255 (74.6%)	152 (42.7%)	4.2 (2.9)

Key point: Basic demographics are similar across countries. Some variations exist between the European countries and the other study countries.

Table 2: Treatment Seeking Behavior Across Countries

Treatment Seeking Behavior	Global N=1341	Australia N=254	Canada N=150	France N=100	Germany N=98	Italy N=99	Spain N=100	UK N=184	US N=356
Have ever talked to healthcare provider for their urinary symptoms	872 (65.0%)	101 (39.8%)	139 (92.7%)	68 (68%)	72 (73.5%)	38 (38.9%)	54 (54%)	117 (63.6%)	283 (79.5%)
Have ever been diagnosed with OAB	630 (47.0%)	68 (26.8%)	125 (83.3%)	25 (25%)	53 (54.1%)	17 (17.2%)	27 (27%)	83 (45.1%)	232 (65.2%)

Key point: Variation exists across countries regarding who has sought treatment, utilization, and self-reported OAB diagnosis.

Table 3: Treatment Seeking Behavior and OAB diagnosis

	Past Medical Diagnosis of OAB		
	No, n (%)	Yes, n (%)	
Have talked to a healthcare provider about their symptoms	No n (%)	414 (30.9%)	55 (4.1%)
	Yes n (%)	297 (22.1%)	575 (42.9%)
		711 (53.0%)	630 (47.0%)

Key point: A treatment gap exists in which 22.1% of study respondents have spoken to a healthcare provider regarding their urinary symptoms, but have not reported a past medical diagnosis of OAB.

Table 4: Association between incontinence episodes and HRU

Healthcare Resource Utilization (over past 6 months)	Incontinence episodes per day (over the past 3 days)						Total Sample (N=1341)	
	0 (N=271)		1 (N=347)		>1 (N=723)		Mean (SD)	% of group that used this resource
Diagnostic Tests	2.3 (3.8)	54.6%	2.9 (5.4)	60.2%	4.7 (8.9)	63.5%	3.8 (7.3)	60.9%
Healthcare Provider Visits	1.7 (3.9)	45.8%	2.1 (5.0)	52.7%	3.8 (8.9)	55.9%	2.9 (7.3)	53.0%
Outpatient Visits	0.2 (1.1)	4.8%	0.4 (1.7)	8.4%	0.8 (3.1)	13.6%	0.6 (2.5)	10.4%
Inpatient Stay Duration (Days)	0.10 (4.3)	1.9%	0.2 (1.2)	4.9%	0.9 (5.1)	9.3%	0.6 (3.8)	6.6%

Key point: The frequency and proportion of individuals that utilize healthcare resources increase with incontinence severity.

CONCLUSIONS

Overall, 65.0% participants had discussed their urinary symptoms with their healthcare provider. Less than half of the sample (47.0%) had ever been diagnosed with OAB. Of the individuals who have spoken to a healthcare provider regarding their urinary symptoms, 34.1% (297/872) of the respondents were not aware of their OAB diagnosis.

Mean utilization rates of HRU increased across levels of incontinence severity. Mean number (SD) of healthcare provider visits in the past 6 months was 1.7 (3.9) for dry patients, 2.1 (5.0) for individuals with 1 UI episode per day, and 3.8 (8.9) for individuals with >1 UI episodes per day.

Diagnostic tests and healthcare provider visits were the most substantial drivers of HRU among the 4 types of HRU measured.

Limitations

Cross-sectional study design limits the robustness of the data and the type of inference that can be drawn from the results.

Potential differences in respondent awareness of OAB terminology across countries may impact reported past medical diagnosis of OAB.

Differing measurement time frames may impact the interpretation of results. Urinary symptoms are assessed as an average occurrence in the past 3 days and healthcare utilization are assessed within a time frame of the past 6 months.

References

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DISCLOSURE

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