



Trends in the Management of Overactive Bladder in the United States from 2003-2016

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OBJECTIVES

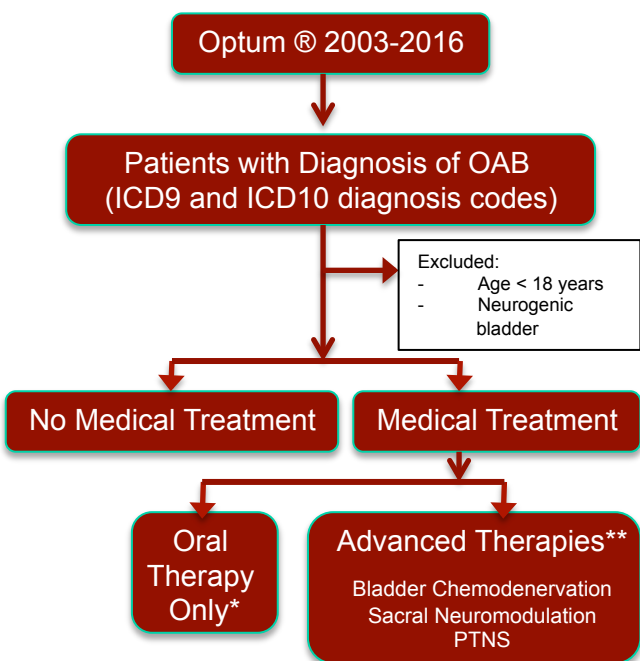
Over the past decade, there has been an increase in therapies available to patients with idiopathic overactive bladder (OAB) in the United States:

- Mirabegron gained FDA approval in 2012 as an oral therapy
- Bladder chemodenervation received FDA approval in 2013

The goal of our study was to determine the trends in the use of OAB medical therapies on a national level

METHODS

- A retrospective review was performed using Optum®, a national administrative health and pharmacy claims database with medical and prescription drug coverage by the largest commercial insurance company in the United States between 2003-2016
- Patients with non-neurogenic OAB were identified by ICD9 and ICD10 diagnosis codes
- Medical Interventions were grouped by:
 - Oral medication (Anticholinergic therapy, Mirabegron)
 - Bladder chemodenervation
 - Sacral neuromodulation (SNS)
 - Peripheral tibial nerve stimulation (PTNS)



*generic drug names

**Procedural codes:

- CPT for outpatient procedures
- ICD9, ICD10 procedure codes for inpatient procedures

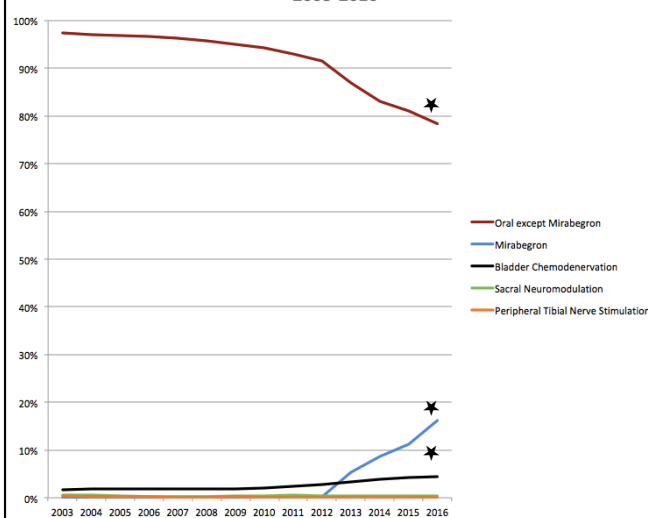
RESULTS

- 3,519,529 patients with a diagnosis of non-neurogenic OAB were collected
- Of these, 18% underwent medical treatment
 - 17% used oral therapy only
 - 0.7% used advanced therapies
- Trends in therapies over time (graph):
 - Mirabegron use increased to 16% in 2016 while anticholinergic therapy use decreased from 97% in 2003 to 78% in 2016
 - Bladder chemodenervation increased from 2% use in 2003 to 4% in 2016
 - Sacral neuromodulation remained low at 0.4%
 - PTNS use remained low at 0.01% in 2016

Table 1: Patient Characteristics

	N	%
Total	3,519,529	-
Age (mean)	57 ± 18	-
Gender		
Female	2,144,587	61%
Male	1,374,489	39%
Race		
White	2,395,833	73%
Black	100,310	10%
Asian	339,122	3%
Hispanic	299,446	9%
Other	126,733	4%
Region		
Northeast	449,803	13%
Midwest	948,433	27%
South	1,527,918	43%
West	578,392	16%
Income		
<\$75,000	1,141,197	46%
≥ \$75,000	1,345,215	54%
Education		
<12 th grade	20,886	0.6%
High School Diploma	976,933	30%
Less than Bachelor Degree	1,725,995	53%
Bachelor Degree or more	523,100	16%
Occupation		
Manager/Owner/Professional	132,178	21%
White collar/health/civil/military	178,745	28%
Blue collar	93,554	15%
Homemaker/retired	228,676	36%
OAB Therapy Use in Total Cohort		
Any Therapy	638,422	18%
Oral Medications Only	614,319	17%
Advanced Therapies	24,103	0.7%

Trends in Intervention Type in Patients with OAB from 2003-2016



CONCLUSIONS

A rise in Mirabegron use in 2012 coincides with a decline in anticholinergic use for management of OAB, suggesting that providers are increasingly utilizing Mirabegron. Chemodenervation increased over time since 2010 while PTNS and SNS use remained low. Further research is needed to determine whether newer oral therapies are more efficacious or whether third line therapies are not being fully utilized.