# Overactive bladder medication: persistence, drug switching and beyond

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## Introduction
Persistences rates (PR) of OAB medication are reported to remain low. Most studies on PR are based on retrospective analysis of medical and pharmaceutical claims databases, and are unable to determine the precise medical history of each patient, including the reason for treatment discontinuation. Information on the follow-up status after discontinuation of therapy are typically not documented. Aim: to identify a more comprehensive treatment profile of patients receiving OAB medication through medical chart-based retrospective study.

## Patients & Methods

### Parameters of interest
- time to / reasons for discontinuation / drug switching
- post-discontinuation follow-up

### Patients
- retrospective chart review
- 777 patients aged ≥18 years
- antimuscarinics or ß agonist initiated from Jan 2014 to Dec 2016

### Data collected
- age, sex, chief complaint, OABSS at initiation of therapy
- time to / reasons for discontinuation

### Endpoints
- median time to discontinuation (TTD)
- PR at 12 months

### Statistical analyses
- Categorical data: Fisher’s exact test
- TTD: Kaplan-Meier
- Between-group differences: Log-rank test
- Results considered significant at p<0.05

### Results

#### Treatment Overview

- OAB medication
  - continue: 777 (88%)
  - discontinue: 170 (20%)

- after discontinuation
  - stopped visiting: 117 (64%, 12 months)
  - regular visit: 57 (36%, 12 months)

#### Patient background

- Age distribution
  - Male (n=490)
  - Female (n=287)

- Chief complaints

- Prescribed drugs

- # of drugs per patient

#### Persistence

- Age
  - males: <65 (761), ≥65 (116)
  - p=0.005

- Gender
  - Male (n=490)
  - Female (n=287)
  - p=0.002

- ABOSS-3

- Drug

- Incidence rate of adverse effects which led to discontinuation

#### Conclusion

Male patients, older patients, and those with more severe symptoms were more likely to show persistence to OAB medications. The majority of patients (79%) in our study used only one medication during the study period. Persistence for mirabegron was significantly longer than that for antimuscarinics. The superior persistence of mirabegron was irrespective of the order of medication. The proportion of patients who received combination therapy with antimuscarinics and mirabegron was very low, and no patients received third-line therapy. More than 80% of patients in the present study did not reinitiate OAB pharmacotherapy after discontinuation. Considering the growing awareness in recent years of an association between anticholinergic use and increased risk of cognitive, physical, and functional impairment, clinical models for appropriate patient selection and optimal treatment duration are warranted.