

The Complementary Use of Both β 3 Agonists Could Play a Key Role in Optimizing OAB Management

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Drug utilization and persistence rate of mirabegron and vibegron for overactive bladder

Background

In our previous research, we reported relatively favorable long-term persistence with mirabegron at our institution before the introduction of vibegron (61-66% at 12 months) (Int J Urol 2018). We aimed to assess the real-world usage and persistence rates of mirabegron and vibegron in patients with OAB.

Methods

This retrospective study reviewed patients who were prescribed either mirabegron or vibegron as their initial treatment for OAB between Aug. 2022 and Dec. 2023.

Data collected included patient demographics (sex, age), pre-existing conditions, treatment duration, drug discontinuation, reasons for discontinuation, and subsequent drug changes if therapy was discontinued due to adverse events (AEs) or lack of efficacy.

Persistence was analyzed in two phases: First, for mirabegron and vibegron individually (**Persistence Rate I**). Second overall β 3 agonist use in patients who switched between the two drugs (**Persistence Rate II**).

Results

	Mirabegron	Vibegron	P value
No.	94 (73%)	34 (27%)	
Gender, n (%)			
Male	59 (63%)	13 (38%)	
Female	35 (37%)	21 (62%)	0.01
Median age (years)	69.5	68.3	0.62
Underlying neurogenic diseases, n (%)	19 (20%)	8 (24%)	0.46
Prostatic volume (only in male)	34.9 ml	29.8 ml	0.52
OABSS	7.7 (n=29)	9.1 (n=20)	0.10
No. discontinuation, n (%)	55 (59%)	14 (41%)	0.08
Median continuation period (months)	8.9	10.6	0.31

Interpretation

The availability of another β 3 agonist allows sequential mirabegron-to-vibegron therapy, that may influence the persistence rate of these drugs. The availability of two β 3 agonists may facilitate treatment switching and support long-term adherence of β 3 agonists.

Influencing factors on the persistence of β 3 agonists	HR	95% CI	P value
Age	0.99	0.97-1.01	0.33
Male (vs female)	1.51	0.89-2.57	0.13
Neurogenic OAB (vs non-neurogenic OAB)	1.48	0.86-2.55	0.16
Mirabegron (vs vibegron)	0.54	0.30-1.00	0.05

