

COMPARISON OF HEALTHCARE COSTS AND RESOURCE UTILIZATION FOR OVERACTIVE BLADDER PATIENTS IN THE UNITED STATES PERSISTING WITH MIRABEGRON TREATMENT OR SWITCHING TO ONABOTULINUMTOXINA

Hypothesis / aims of study

Patients who persist on mirabegron as a pharmacological treatment for overactive bladder (OAB) may see a reduction in all-cause, OAB-related, and adverse event costs. The objective of this study was to compare healthcare costs and resource utilization for OAB patients who persisted on mirabegron with those who switched to onabotulinumtoxinA (onabotA).

Study design, materials and methods

A retrospective study was conducted using the OptumHealth administrative claims data from April 2012 to September 2015 comparing patients who persisted on mirabegron with those who switched to onabotA. The study included OAB patients ≥ 18 years with ≥ 1 claim for an OAB diagnosis and ≥ 1 claim for mirabegron. It excluded subjects with pregnancy, benign prostatic hyperplasia, stress incontinence, or urinary tract infection. All-cause and OAB-related healthcare costs and number of medical visits in patients who switched to onabotA after mirabegron therapy and those who persisted on mirabegron for at least 180 days were compared. Index dates were defined as the first onabotA injection for onabotA switchers and randomly assigned to the mirabegron persisters based on the distribution of time to switch for the onabotA group. Healthcare costs and resource utilization were measured in the 6 months before and 12 months after the index date, and included initial onabotA treatment. Propensity score weighting was used to account for differences in patient baseline characteristics. Costs were analyzed with generalized linear models, and healthcare visits were analyzed with negative binomial regressions.

Results

449 patients were included in this study: 54 OAB patients in the onabotA group and 396 patients in the mirabegron persistence group. After propensity score weighting, both patient groups were similar in demographics and baseline healthcare costs, including mean age (58.5 vs. 58.5; standard difference [SD] = 0.003), percent male (9% vs. 10%; SD = 0.015), and baseline all-cause (\$14,356 vs. \$12,640; SD = 0.098) and OAB-related healthcare (\$1,655 vs \$1,657; SD = 0.001) costs. In the 12 months post-index, onabotA switchers had significantly more OAB-related medical visits (6.0 vs. 1.9; $p < 0.001$), higher OAB-related total costs (\$5,504 vs. \$1,772; $p < 0.001$), medical costs (\$5,033 vs. \$351; $p < 0.001$), and outpatient costs (\$17,385 vs. \$9,035; $p = 0.009$), but lower OAB-related prescription costs (\$470 vs. \$1,421; $p < 0.001$) than mirabegron persisters (Table 1).

Interpretation of results

The study showed that, 12 months after index date, OAB patients who continued mirabegron treatment for at least 180 days had lower total OAB-related medical visits and costs compared to those who switched to onabotA.

Conclusion

OAB patients who persisted on mirabegron treatment for at least 180 days had lower healthcare costs and resource utilization compared to OAB patients who switched to onabotA.

Table 1 Comparison of healthcare costs and resource utilization between patients who switched to onabotA and persisted with mirabegron

Endpoint	OnabotA switchers (n = 54)		Mirabegron persisters (n = 395)		Difference	p-value
	Estimate	Std. Err.	Estimate	Std. Err.		
Healthcare costs						
Total cost	\$34,046	\$6,632	\$22,791	\$2,043	\$11,255	0.061
Total medical cost	\$24,665	\$5,934	\$14,814	\$1,740	\$9,851	0.057
Total prescription cost	\$9,381	\$2,220	\$7,983	\$746	\$1,398	0.526
OAB-related cost	\$5,504	\$922	\$1,772	\$105	\$3,732	<0.001
OAB-related medical cost	\$5,033	\$905	\$351	\$82	\$4,682	<0.001
OAB-related prescription cost	\$470	\$127	\$1,421	\$67	(\$951)	<0.001
OnabotA cost	\$2,989	\$3,293	\$0	\$0	\$2,989	-
PTNS cost	\$38	\$30	\$74	\$32	(\$36)	0.064
SNM cost	\$865	\$674	\$60	\$35	\$805	0.017
Mirabegron Rx cost	\$230	\$76	\$1,290	\$70	(\$1,060)	<0.001
Antimuscarinic Rx cost	\$240	\$89	\$131	\$34	\$109	0.182
Outpatient cost	\$17,385	\$4,050	\$9,035	\$867	\$8,350	0.009
Inpatient cost	\$4,059	\$2,051	\$4,261	\$1,161	(\$202)	0.967
ER cost	\$122	\$54	\$115	\$34	\$7	0.475
Healthcare resource utilization						
Total medical visits and prescription claims	89.5	9.8	82.8	4.2	6.7	0.519
Total medical visits	32.9	4.1	28.8	1.7	4.1	0.341
Total prescription claims	56.6	6.8	54.1	3.0	2.5	0.729
OAB-related visits	7.6	0.8	6.9	0.4	0.7	0.401
OAB-related medical visits	6.0	0.6	1.9	0.2	4.1	<0.001
OAB-related prescription visits	1.6	0.4	5.0	0.3	(3.4)	<0.001
OnabotA visits	1.7	1.0	0.0	0.0	1.7	-
PTNS visits	0.4	0.2	0.3	0.2	0.0	0.980
SNM visits	0.2	0.1	0.1	0.0	0.1	0.521
Mirabegron claims	0.6	0.2	4.4	0.3	(3.7)	<0.001
Mirabegron days supply	34.1	11.2	197.7	10.5	(163.6)	<0.001
Antimuscarinic claims	1.0	0.3	0.6	0.2	0.4	0.237
Antimuscarinic days supply	42.7	14.0	31.4	7.7	11.3	0.454
Outpatient visits	26.3	2.8	24.3	1.5	2.1	0.509
Inpatient visits	6.0	2.8	5.1	1.0	1.0	0.726

Disclosures

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