Abstract

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Background: Mometasone/formoterol and fluticasone/salmeterol are inhalers used to control the daily symptoms of moderate persistent asthma. Short-acting β-agonist (SABA) inhalers are rescue inhalers used for quick relief of acute asthma symptoms. Generally, appropriately treated asthma patients have well-controlled asthma and thus have less frequent SABA use. Therefore, this study compared two first-line therapies for moderate persistent asthma patients and their SABA use using a real-world patient population.

Methods: The study design was a retrospective, two-armed study. One year (01/01/2019 to 12/31/2019) of Express Scripts pharmacy claims data was reviewed. Patients 18 and older who had at least one claim with the diagnosis of moderate persistent asthma within the study period and were utilizing either a mometasone/formoterol or fluticasone/salmeterol inhaler were included in the sample. The SABA refill histories between the two inhaler groups were compared. The primary outcome of SABA utilization was measured in average SABA days of supply refilled during the study period. A t-test was used to assess if there was a significant difference in the SABA use between the two groups.

Results: The study consisted of 5,013 total subjects. 1,651 (32.9%) subjects were in the mometasone/formoterol group, and 3,362 (67.1%) subjects were in the fluticasone/salmeterol group. The mometasone/formoterol group showed a significantly lower average SABA days of supply compared to the fluticasone/salmeterol group [104.13 days (95% CI, 83.17, 125.09) vs. 119.09 days (95% CI, 110.11, 128.07) respectively, $p<0.0001$].

Conclusion: Mometasone/formoterol outperformed fluticasone/salmeterol with a statistically significantly lower average SABA days of supply. This finding suggests that mometasone/formoterol is better at controlling asthma. Follow-up studies are needed to determine how the differences in SABA utilization between the two groups affect clinical outcomes.