

ABSTRACT

Disease burden and treatment patterns in adult patients with severe asthma: A real-world study based on claims data from China

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Objective: To assess the treatment pattern and disease burden in adults with severe asthma in China.

Methods: This retrospective, observational, cohort study with one-year follow-up was conducted using a healthcare claims database spanning 2018 through 2020, from Tianjin, China. Patients diagnosed with asthma, who had ≥ 2 prescriptions of medium-to-high dose of inhaled corticosteroids (ICS) along with additional controllers, were identified to represent severe asthma population in China. Patients were categorized as controlled, sub-optimally controlled, and uncontrolled by the times of burst systemic corticosteroids, short-acting β_2 -agonist (SABA) and hospitalization. Medication use, asthma exacerbations, and related costs in the follow-up period were also reported.

Results: 2,418 patients with severe asthma were included, with an average age of 56.15 years, male 55.62%. 93.51% of patients used inhaled corticosteroid/long-acting β_2 (ICS/LABA). 10.75% of patients used oral corticosteroids (OCS) (6.13%, 23.83% and 33.96% in controlled, sub-optimally controlled and uncontrolled group, respectively). For patients with OCS, the average duration of OCS was 82.73 days (53.35, 102.27 and 111.21 days in three groups, respectively). 10.67% of patients experienced ≥ 1 exacerbation and 3.93% experienced ≥ 2 exacerbations (1.73%, 1.68% and 26.89% in three groups, respectively). The average frequency of annual exacerbations was 0.21 (0.09, 0.26 and 1.31 in three groups, respectively). The average cost for per exacerbation was ¥1441.83 (¥293.69, ¥550.86 and ¥2366.86 in three groups respectively). The average asthma-related annual cost was ¥2846.08, of which medication costs exceeded 90% (¥2105.70, ¥3559.35 and ¥8506.83 in three groups, respectively).

Conclusion: This study shows that ICS/LABA is widely used in patients with severe asthma, and OCS is more used in patients with uncontrolled asthma. Worse asthma control is associated with more frequent and severe asthma attack and higher medical cost, which reveals the necessity of effective management and treatment to improve the asthma control.


Key words: severe asthma, control level, treatment pattern, disease burden, real-world study

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Received: 15 June 2024; Published: 15 July 2024

<https://doi.org/10.54844/hd.2024.0011>

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