Prevalence of Asthma Control and the Associated Disease Burden in US Patients With Asthma Treated With a Fixed-dose Combination of Inhaled Corticosteroid and Long-acting β2-agonist

Background and Aims
For patients with uncontrolled asthma requiring Step 3 or Step 4 treatment according to the Global Initiative for Asthma (GINA) guidelines, a combination of an inhaled corticosteroid (ICS) and long-acting β2-agonist (LABA) is recommended as a preferred maintenance treatment option.1

Despite optimal adherence to ICS/LABA, it has been estimated that approximately 30%-50% of patients with asthma remain uncontrolled.2

To address a paucity of real-world data describing asthma control, this study aimed to quantify asthma control in US patients treated with a fixed-dose comparator (FDC) of ICS/LABA.

Methods

STUDY DESIGN AND STUDY POPULATION
The study was conducted among US adults with asthma who had been prescribed ICS/LABA. Data were derived from a large claims database of 4.4 million patients in the United States. Patients included in the analysis were 18 years or older at baseline and had at least 12 months of continuous claims data up to March 31, 2018, the end of the study period. Only patients with at least 6 months of follow-up were included in the analysis. The study took place from April 2016 to February 2018.

Asthma control and concordance between ACT and ACQ-6

- Of 2050 patients enrolled, the survey, designed and carried out the following criteria: (1) enrolled in a clinical trial, (2) had a baseline reading of self-rated health on a visual VAS where endpoints are 'best imaginable health' and 'worst health imaginable' (100 mm), and (3) had a 12-month sample identification period (8 weeks).
- Approximately 20% of these patients reported shortness of breath on a scale of 0-4 (4.8% of the population) for at least part of the day, while in the past week (5.5%).
- Three-quarters of those classed as 'controlled' on the ACT reported that their symptoms were manageable or minimally bothersome within the past week due to adverse symptoms.
- There was a slight degree of concordance between ACT and ACQ-6 scores in identifying asthma controls. A correlation coefficient of 0.54 was observed between the 2 methods.

Data analysis:

- All study variables were analyzed descriptively, with additional bivariate analysis.
- The EQ-5D-3L contains two components; the first is a 5-item questionnaire covering mobility, self-care, usual activities, pain/discomfort, and anxiety/depression, with scores ranging from 0 to 100, where 100 is best health imaginable and 0 is worst health imaginable. The second component is the visual analog scale (VAS), where the patient rates overall health on a scale of 0 to 100.

Results

- Of 2050 patients enrolled, the survey, designed and carried out the following criteria: (1) enrolled in a clinical trial, (2) had a baseline reading of self-rated health on a visual VAS where endpoints are 'best imaginable health' and 'worst health imaginable' (100 mm), and (3) had a 12-month sample identification period (8 weeks).

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Asthma control and concordance between ACT and ACQ-6

- Using the ACT, over a third of patients were classified as uncontrolled (poorly controlled or controlled).
- Approximately 20% (48%) of those classified as uncontrolled on the ACT were also uncontrolled on the ACQ. 90% of those 'poorly controlled' on the ACT were also 'uncontrolled' on the ACQ.
- There was a high degree of concordance between ACT and ACQ-6 scores in identifying asthma controls. A correlation coefficient of 0.54 was observed between the 2 methods.

Data analysis:

- All study variables were analyzed descriptively, with additional bivariate analysis.

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References
