CONTINUOUS TREATMENT WITH FIXED COMBINATION OF LABA/ICS CAN AVOID COSTS OF HOSPITALIZATION IN ASTHMA AND COPD IN GERMANY

Prasanna C, Sinders J, Wolbring F, Mahout A
University of Louisiana at Monroe, Monroe, LA, USA; Janssen-Cilag GmbH, Neuss, Germany; Janssen-Cilag GmbH, Neuss, New York, USA

OBJECTIVES: To assess the impact of continuity of treatment on hospitalization rate and costs of hospitalization in patients with asthma or COPD treated with fixed combination (fc) of long-acting b2-agonists (LABA) and inhaled corticosteroids (ICS). METHODS: For this retrospective analysis, German IMS Disease Analyzer with longitudinal electronic medical record was used to identify patients with at least one diagnosis of asthma (J45.1) or COPD (J44) in the study period October 2007–September 2008, at least one fc-precription in the first quarter of the study period and physician visits in all four quarters. The population was subdivided by diagnosis (asthma and COPD) and by SHI status (pensioners and insured-persons/qualified-family-member). Hospitalization rate was used as an indicator to assess the impact of continuity of treatment (continuous treatment (ct): at least one prescription of fc in each quarter, non-continuous treatment (nct): at least one prescription of fc in 1–3 quarters). Published data based on German DRGs were used to calculate hospitalization costs. RESULTS: Of 106,911 patients with asthma or COPD, 2,486 insured-persons/qualified-family-member and 1,692 pensioners met the inclusion criteria for asthma; 801 insured-persons/qualified-family-member and 2,389 pensioners for COPD. In each of these subgroups, the proportion of patients with ct is significantly (p < 0.05, Wilcoxon) higher in patients without hospitalization compared to hospitalized patients. The hospitalization cost decreased 1.4 to 1.7-fold in patients with nct (p < 0.05) compared to patients with ct. The estimated associated additional hospitalization costs for sick funds per 10,000 patients were 370,000-960,000 EUR/ year for the different subgroups of patients. CONCLUSIONS: There is a strong impact of continuity of treatment on hospitalization rate in patients with asthma or COPD. Continuous treatment with fixed combination LABA/ICS can avoid asthma or COPD related hospitalizations and therefore offers potential for cost savings.

ADHERENCE AMONG COPD SUBJECTS ON Tiotropium and Fluticasone/Salmeterol

Hafner A, Marquita A, Newbald KB, Shah H
13 Pharmaceuticals, Inc., Englewood, NJ, USA; 2 Pfizer, New York, NY, USA; 3 Boehringer Ingelheim Pharmaceuticals, Inc., Ridgefield, CT, USA

OBJECTIVES: Compare adherence, defined as persistence and compliance, in subjects with chronic obstructive pulmonary disease (COPD) initiated on tiotropium bromide or fluticasone/salmeterol. METHODS: This retrospective inception cohort study used claims from a large national US health plan. Subjects with COPD were selected for the study if they had ≥11 fill of tiotropium or fluticasone/salmeterol between December 1, 2004 and December 31, 2005 and ≥12 (up to 18) months of continuous enrollment. Persistence was defined as days from the index prescription to the first 60-day gap in the index drug. Subjects with a medication possession ratio (MPR) ≥80% were “compliant” and MPR <80% were “non-compliant.” Persistence and compliance were modeled with Cox proportional hazard and logistic regressions, respectively. Covariates included index drug, demographics, baseline COPD severity and comorbidities. RESULTS: The sample comprised 1,561 tiotropium and 2,976 fluticasone/salmeterol subjects. Seventy-eight percent of tiotropium subjects had a 60-day gap in index therapy versus 89% of fluticasone/salmeterol subjects (p < 0.001). Tiotropium subjects were more compliant than fluticasone/salmeterol (20% vs. 9%, p < 0.001). Mean length of persistence was 95.9 days for tiotropium vs. 77.3 for fluticasone/salmeterol subjects. Seventy-eight percent of tiotropium subjects had a 60-day gap in index therapy versus 89% of fluticasone/salmeterol subjects (p < 0.001). Tiotropium subjects were more compliant than fluticasone/salmeterol (20% vs. 9%, p < 0.001). Length of continuous enrolment was defined as days from the index prescription to the first 60-day gap (0.72; confidence interval (CI): 0.67-0.77). Logistic regression results showed tiotropium subjects were significantly more likely to be compliant vs. flucatasone/salmeterol subjects (odds ratio: 2.25; CI: 1.85-2.73). CONCLUSIONS: Tiotropium subjects were significantly more adherent than fluticasone/salmeterol subjects. The results can have important implications for management of COPD. Additional research in different COPD populations should be undertaken to investigate these findings further.

CURRENT PATTERNS OF FIXED AND FREE LABA/ICS COMBINATION USAGE IN ASTHMA SHI PATIENTS IN GERMANY

Senathipuya V, Wolbring F, Sinders J, Mahout A
University of Louisiana at Monroe, Monroe, LA, USA; Janssen-Cilag GmbH, Neuss, Germany; Janssen-Cilag GmbH, Neuss, Potsdam, Germany

OBJECTIVES: Objective of this analysis was to evaluate the current usage of fixed and free combinations of long-acting b2-agonists (LABA) and inhaled corticosteroids (ICS) using real-life electronic medical record data. METHODS: In a retrospective data analysis using Germany IMS disease analyzer with longitudinal medical records for the period October 2007-September 2008, patient records were extracted. Patients had to have at least one diagnosis of asthma (ICD10: J45) and at least one GP visit in each quarter of the study period and at least one prescription of LABA (formoterol or salmeterol) or fixed combination (ATC R3F) in the first quarter of the study period to make sure patients had chronic asthma. LABA-treated patients were analyzed by number of quarters with concomitant treatment of ICS. Hospitalization rate was considered as indicator to assess treatment outcomes. RESULTS: Of 3,969 patients receiving at least one prescription of fixed combination, 40.3% received continuous treatment (i.e. at least one prescription per quarter). In total 1,124 patients had at least one single-agent LABA prescription in the study period, 42.9% of these received continuous LABA-treatment while 12.1% received continuous LABA + ICS treatment. Continuous treatment with free combination of ICS and LABA was associated with a significantly lower risk of hospitalization compared to non-continuous treatment of free combination (p = 0.01; Fisher’s Exact). Of patients continuously treated with LABA, 32.8% did not receive any ICS prescription in the study period. CONCLUSIONS: Continuous treatment with free combination was much less frequent than with fixed combinations. In contrast to general asthma treatment guidelines and drugs’ labels of LABA, a significant proportion of patients received only LABA and no ICS. The results of this analysis were in line with the FDA’s expert panel’s concerns of potentially inappropriate use of LABA in asthma treatment.