Reduced Likelihood of Multiple Hospitalizations in Patients Newly Diagnosed with Allergic Rhinitis Who Receive Intranasal Corticosteroids

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ABSTRACT

RATIONALE: Given that 1) asthma research with administrative claims data often characterizes asthma severity and control in terms of frequency of asthma-related hospitalizations, and 2) allergic rhinitis (AR) and asthma are highly prevalent and share a common inflammatory mechanism, we examined administrative claims data to assess whether treatment with intranasal steroids (INS) among patients with newly diagnosed AR (INS cohort) would reduce the likelihood of multiple hospitalizations following INS initiation.

METHODS: This 12-year (1997-2009) retrospective matched cohort study of Florida Medicaid enrollees who received INS and who had ≥3 years of continuous enrollment following INS initiation (INS cohort) was compared with patients who received no INS (Control cohort). The INS cohort included 1) an INS cohort for whom the first INS fill was preceded by an AR diagnosis and followed by ≥1 year of data preceding index INS fill; or 2) an INS cohort for whom the first INS fill was preceded by an AR diagnosis and followed by ≥2 years of data preceding index INS fill. The Control cohort included matching patients who received no INS care within the unified airspace. Am J Rhinol Allergy 2010;24:249-54.

RESULTS: Overall, 2,816 INS patients were matched (1:3) to controls on age at first AR diagnosis, sex, race/ethnicity, and calendar year of INS initiation. In the 3 years following INS initiation, the INS cohort was 36.8% less likely to experience asthma-related hospitalizations than matched controls (OR 0.56, 95% CI 0.35 to 0.90; p=0.017). Similarly, in the 4 years following INS initiation, the INS cohort was 43.5% less likely to experience asthma-related hospitalizations than matched controls (OR 0.56, 95% CI 0.35 to 0.90; p=0.017). Similar findings were observed in patients aged ≥3 years of continuous enrollment following match date, 6,087 were matched using a 1:3 ratio of INS patients to controls.

CONCLUSIONS: Treatment of AR with INS may mitigate the risk of multiple asthma-related hospitalizations.

This study suggests that treatment of newly diagnosed AR with INS can reduce the morbidity of AR, specifically the likelihood of multiple asthma-related hospitalizations.

These findings corroborate those of previous retrospective studies reporting that pharmacological treatment of AR reduces the risk of asthma-related hospitalizations and emergency department visits.

Despite the benefits of INS, a recent analysis of U.S. managed care claims data found that only about 1/3 of health plan members who were prescribed a medication for the treatment of AR were receiving INS.

Given the superior efficacy of INS for treating symptoms of AR and its potential to reduce asthma-related hospitalizations, the increasing utilization of INS may be critical to improving control of respiratory symptoms in patients with AR.

Limitations of this study include its retrospective nature, which precludes definitive conclusions regarding causality; the possibility that groups may have differed on variables that were not controlled for by matching procedures; and the inability to generalize findings beyond the patient population of Medicaid enrollees.

REFERENCE


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