

# Predictors of risk for COPD exacerbations in patients using inhaled medications

May 18 2015

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Gastroesophageal reflux disease (GERD), being female, and certain scores on the St. George's Respiratory Questionnaire (SGRQ) were associated with exacerbations of chronic obstructive pulmonary disease (COPD) in subjects using long-acting controller medication, according to a study presented at the 2015 American Thoracic Society International Conference.

"Knowing these factors can help clinicians identify subjects at risk for acute exacerbations of their COPD," said Robert Busch, MD, Brigham and Women's Hospital, Boston.

Although inhaled medications can decrease the risk for exacerbations, some COPD patients still experience them, Dr. Busch said. Researchers aimed to determine the prospective risk factors for acute exacerbations (AE) of COPD among subjects in the COPDGene study, which focuses on genetic factors relating to COPD.

A total of 2489 adults with COPD on tiotropium (TIO), long-acting beta-agonist inhaled corticosteroids (LABA/ICS), and/or short-acting bronchodilators (SAB) alone or in combination were studied using retrospective data from the COPDGene study and prospective data from the telephone and web-based biannual Longitudinal Follow-Up program. Researchers divided subjects according to medication use groups (TIO/LABA/ICS, TIO, LABA/ICS, and SAB); exacerbators and nonexacerbators were identified by the frequency of AECOPD (one or more AECOPD a year compared with zero AECOPD for

nonexacerbators).

In multiple medication groups, the presence of GERD, female gender, and higher total SGRQ scores were significant predictors of exacerbator status, according to the researchers.

Subjects in the LABA/ICS or TIO groups had similar characteristics, such as forced expiratory volume in one second, 6-minute walk distance, percent emphysema by CT scan, and pack-years of smoking.

There was a trend toward significantly lower rates of exacerbations in subjects taking TIO compared with those taking the LABA/ICS combination. This was especially true in subjects who did not have a doctor's diagnosis of asthma.

**More information:** Abstract 61907: Risk Factors for COPD Exacerbations in Inhaled Medication Users: COPDGene Study Biannual Longitudinal Follow-Up

Provided by American Thoracic Society

Citation: Predictors of risk for COPD exacerbations in patients using inhaled medications (2015, May 18) retrieved 20 March 2024 from <https://medicalxpress.com/news/2015-05-predictors-copd-exacerbations-patients-inhaled.html>

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