

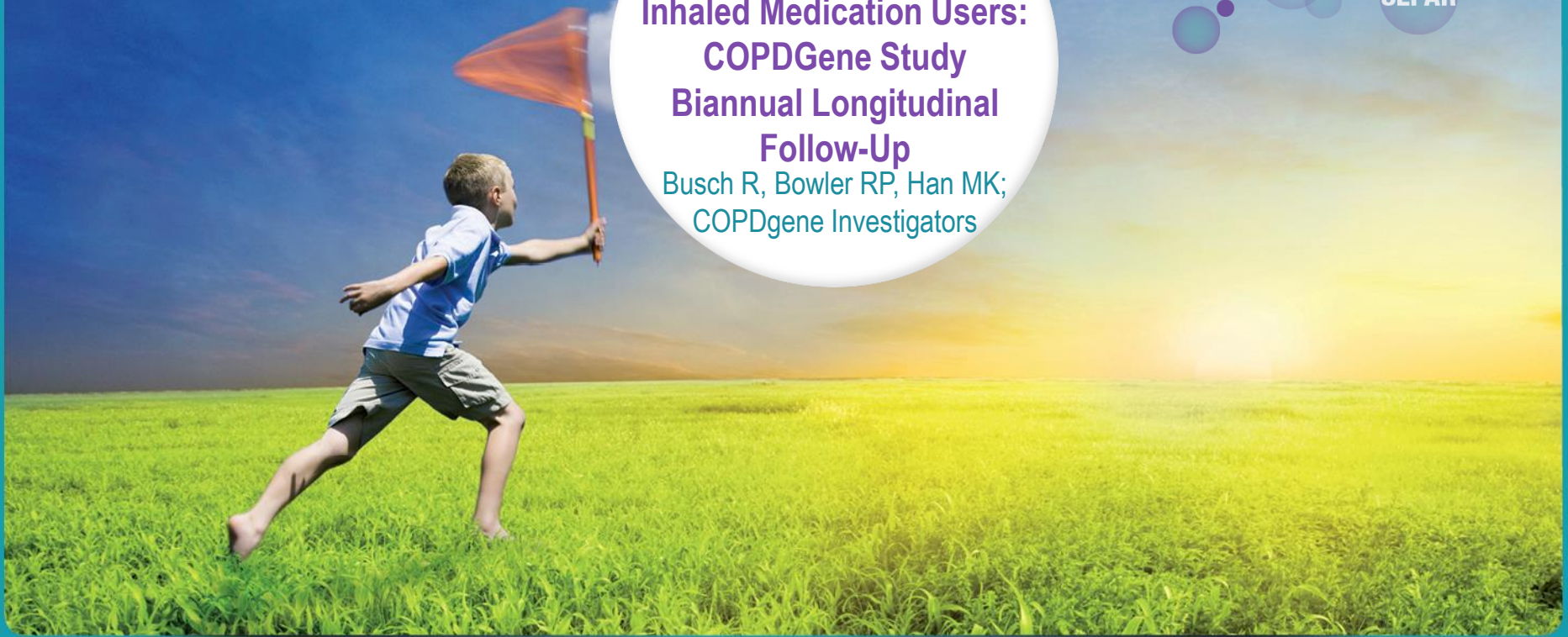
**[ATS] Risk Factors For  
COPD Exacerbations In  
Inhaled Medication Users:  
COPDgene Study  
Biannual Longitudinal  
Follow-Up**

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EPOC AVANCES

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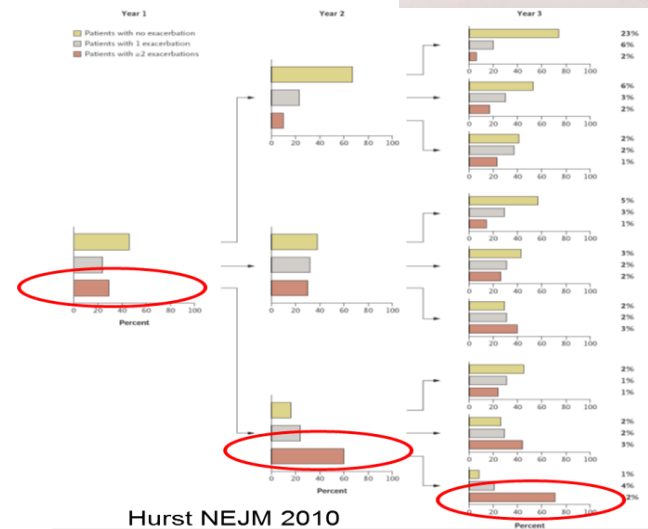
SEPAR



# Background and objectives



- Despite inhaled medications that decrease exacerbation risk, some COPD patients continue to have frequent exacerbations.
- Aim: to determine prospective risk factors for acute exacerbations of COPD (AECOPD) among subjects in the COPDGene study taking inhaled respiratory medications.





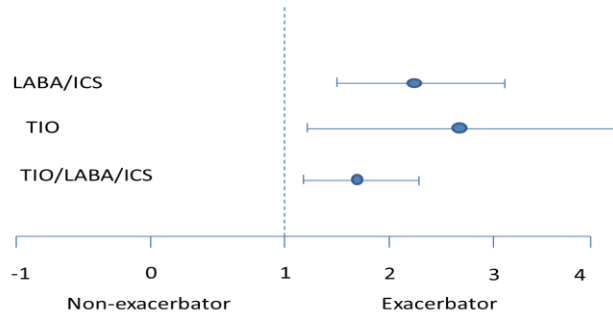
# Methods

- Retrospective data from the COPDGene study and prospective data from the telephone- and web-based biannual Longitudinal Follow-Up program (LFU).
- Medication use groups (TIO/LABA/ICS, TIO, LABA/ICS, and SAB) were defined by subject self-report.
- Exacerbators and nonexacerbators were identified by the frequency of AECOPD (exacerbators had one or more AECOPD per year, non-exacerbators had zero AECOPD per year).
- Associations between AECOPD occurrence and demographics, spirometry, chest CT data, and comorbidities were tested.

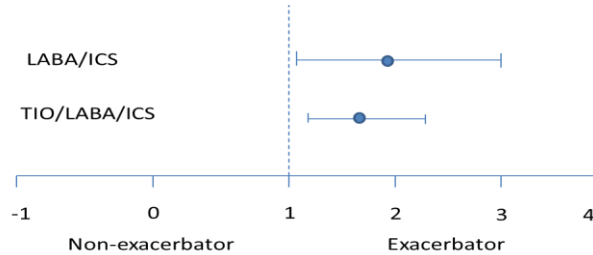


# Results

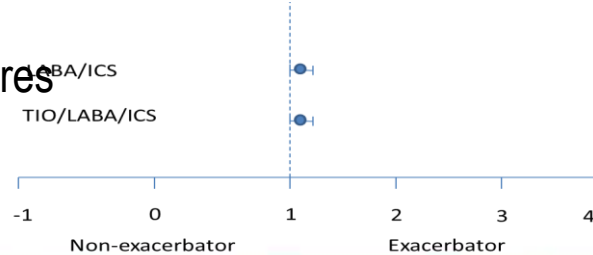
GERD



Female gender



Higher total SGRQ scores



# Results



- Subjects taking either LABA/ICS or TIO had similar characteristics such as FEV<sub>1</sub>, 6-minute walk distance, percent emphysema by CT scan, and pack-years of smoking.
- Comparing subjects taking tiotropium vs. long-acting beta-agonist/inhaled corticosteroid, tiotropium subjects showed a trend towards statistically significantly lower rates of exacerbations (OR = 0.69 [95 % CI 0.45, 1.06], p= 0.09), especially in subjects without a doctor's diagnosis of asthma (OR =0.56 [95 % CI 0.31, 1.00], p=0.05).



# Discussion

- Conclusion: Characteristic risk factor profiles for exacerbators may help identify subjects at risk for AECOPD

Martinez et al. *Respiratory Research* 2014, **15**:62  
<http://respiratory-research.com/content/15/1/62>



RESEARCH

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## Impact of self-reported Gastroesophageal reflux disease in subjects from COPD Gene cohort

GERD was reported by 29% of subjects with female predominance.

**Conclusions:** In COPD the presence of physician-diagnosed GERD is associated with increased symptoms, poorer QOL and increased frequency of exacerbations at baseline and during follow-up. These associations are maintained after controlling for PPI use. The PPI-exacerbations association could result from confounding-by-indication.