

Publication**Atopy modifies the association between inhaled corticosteroid use and lung function decline in patients with asthma****JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)****ID** 4596439**Author(s)** Marcon, Alessandro; Marchetti, Pierpaolo; Antó, Josep M.; Cazzoletti, Lucia; Cerveri, Isa; Corsico, Angelo; Ferreira, Diogenes Seraphim; Garcia-Aymerich, Judith; Gislason, David; Heinrich, Joachim; Jögi, Rain; Johannessen, Ane; Leynaert, Bénédicte; Malinovschi, Andrei; Pin, Isabelle; Probst-Hensch, Nicole; Weyler, Joost; Janson, Christer; Jarvis, Deborah; Accordini, Simone; Ageing Lungs in European Cohorts study,**Author(s) at UniBasel** [Probst Hensch, Nicole](#) ;**Year** 2020**Title** Atopy modifies the association between inhaled corticosteroid use and lung function decline in patients with asthma**Journal** The journal of allergy and clinical immunology. In practice**Volume** 8**Number** 3**Pages / Article-Number** 980-988.e10**Keywords** Allergic sensitization; Asthma; Atopy; Cohort study; Epidemiology; IgE; Inhaled corticosteroids; Lung function decline; Precision medicine; Response to corticosteroids

Inhaled corticosteroids (ICSs) are the mainstay of asthma treatment, but response to medication is variable. Patients with allergic inflammation generally show a better short-term response to ICSs; however, studies on predictors of long-term response are few.; To assess whether allergic sensitization can modify the association between ICS use and lung function decline over 20 years in adult asthma.; We used data from the 3 clinical examinations of the European Community Respiratory Health Survey. We measured ICS use (no use, and use for 8 years) and FEV₁; decline among subjects with asthma over the 2 periods between consecutive examinations. We conducted a cohort study combining data of the 2 periods (906 observations from 745 subjects) to assess whether the association between ICS use and FEV₁; decline was modified by allergic sensitization (IgE > 0.35 kU/L for any of house-dust mite, timothy grass, cat, or Cladosporium).; FEV₁; decline was similar for non-ICS users, as well as ICS users for less than 1.3 years, with and without allergic sensitization. However, among subjects on ICSs for a longer period, sensitization was associated with an attenuated decline (P; interaction; = .006): in the group treated for more than 8 years, FEV₁; decline was on average 27 mL/y (95% CI; Bonferroni-adjusted; , 11-42) lower for subjects with sensitization compared with nonsensitized subjects.; Our study suggests that biomarkers of atopy can predict a more favorable long-term response to ICSs. Randomized controlled studies are needed to confirm these findings.

Publisher Elsevier**ISSN/ISBN** 2213-2201**edoc-URL** <https://edoc.unibas.ch/76130/>**Full Text on edoc** Available;**Digital Object Identifier DOI** 10.1016/j.jaip.2019.10.023**PubMed ID** <http://www.ncbi.nlm.nih.gov/pubmed/31704441>**ISI-Number** WOS:000519197300014**Document type (ISI)** Journal Article