

ASTHMA PHENOTYPE TRIGGERS CORRELATE WITH CLINICAL OUTCOME

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Introduction: Asthma related emergency room and inpatient care account for substantial asthma related costs. Heterogeneous asthma phenotypes may explain why not all patients respond to guideline-based therapy.

Methods: A ambidirectional cohort study of subjects of all ages presenting to the outpatient allergy/immunology clinic with asthma between 2011 and 2012 were asked to undergo spirometry and complete diaries for asthma triggers, nasal symptom triggers, quality of life (QOL) questionnaires, prior emergency room and inpatient care.

Summary: After institutional review board approval and informed consent was obtained, 186 subjects were enrolled. Subject-reported number of asthma triggers over the past year, correlated positively and statistically with asthma severity, including with prior 12-month asthma emergency room and inpatient care, intubation requirement, corticosteroid treatment days and lifetime emergency room care, as well as current and future nasal and asthma symptom scores.

Conclusion: This is the first study to report a correlation between asthma phenotypic triggers and clinical outcomes. Further characterization of trigger mechanisms are warranted to personalize medical care.