November 2026 | annallergy.org

College of Allergy, Asthma & Immunology

Annals of Allergy, Asthma & Immunology®

OFFICIAL PUBLICATION OF THE AMERICAN COLLEGE OF ALLERGY, ASTHMA & IMMUNOLOGY



Oral and Poster Abstracts

ACAAI 2026 Annual Scientific Meeting

BUILDING BRIDGES FOR THE FUTURE

Oral and Poster Abstracts

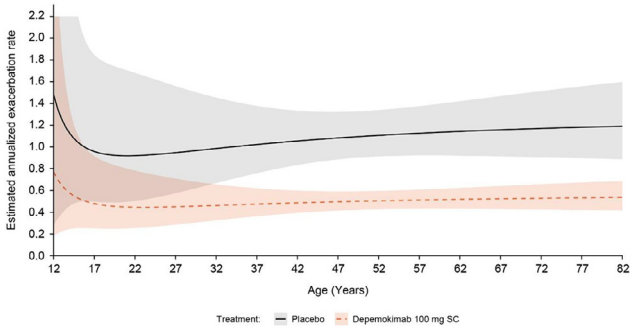
November 12-16
Phoenix, AZ

reductions of 45% (rate ratio [95% confidence interval]: 0.55 [0.33, 0.90]), 59% (0.41 [0.25, 0.67]), 44% (0.56 [0.34, 0.90]), and 64% (0.36 [0.22, 0.58]), respectively. Fractional polynomial modeling showed consistent separation in AERs between depemokimab and placebo across ages **(Figure)**.

Conclusion: The reduction in AERs observed with depemokimab versus placebo was consistent across the age spectrum of SWIFT-1/-2 patients with T2 asthma.

Funding: GSK (206713/213744; NCT04719832/NCT04718103)

Figure. Fractional polynomial modelling showed lower AERs for depemokimab versus placebo across the age spectrum



*The best fitting fractional polynomial model from FP(2) is presented: x^(−2) and log(x)*x^(−2).*

Analysis performed using a generalized linear model assuming a negative binomial distribution with covariates of study, treatment group, baseline ICS dose (medium or high), exacerbation history (2, 3, 4+), geographical region, baseline pre-bronchodilator percent predicted FEV_1, FP1, FP2, FP1 by treatment group and FP2 by treatment group. FP1 and FP2 represent continuous transformations of age. The estimates are derived from a model that includes all age values, ranging from a minimum of 12 to a maximum of 82.

AER, annualized exacerbation rate; FEV_1, forced expiratory volume in 1 second; FP, fractional polynomial; ICS, inhaled corticosteroid; SC, subcutaneous

R145

SYSTEMIC INFLAMMATION AND METABOLIC CHANGES IN OBESE PATIENTS WITH TYPE 2 DIABETICS AND ASTHMA

G. Yeryomenko[1], T. Bezditko[1], L. DuBuske[*2], *1. Kharkiv, Ukraine; 2. Gardner, MA*

Introduction: Asthma (As) and type 2 diabetes mellitus (T2DM) are common chronic diseases, whose coexistence creates a complex syndrome of low-grade systemic inflammation impacting asthma control.

Methods: 32 patients with uncontrolled moderate persistent As, T2DM with obesity (Group 1) were compared to 21 T2DM patients without obesity (Group 2). Group 1-Mean age: 61.11±6.32 years; T2DM duration: 5.03±2.96 years; mean waist circumference (WC): 108.11±9.32 cm and BMI: 33.2±6.98 kg/m^2; Group 2- WC: 82.22±6.11 cm; BMI: 21.1±1.12 kg/m^2. 15 healthy individuals were controls. CBC, lipid profile, CRP, IL-6, TNF-α, IL-1β, bioimpedance body composition analysis, spirometry, and Asthma Control Test (ACT) were assessed.

Results: In Group 1, TNF-α (8.12±3.01 vs 5.21±1.23 pg/mL) and CRP (5.41±2.98 vs 1.29±0.19 mg/L) significantly exceeded both normal ranges and Group 2 values. IL-6 was 2.34±1.02 (Group1) vs 1.95±0.12 pg/mL (Group 2); IL-1β was normal in both groups. In Group 1, waist circumference (WC) positively correlated with IL-6 (r=0.32, p=0.007), TNF-α (r=0.34, p=0.02), and CRP (r=0.51, p=0.0001). Group 1 BMI correlated with IL-6 (r=0.25, p=0.039), CRP (r=0.62, p=0.0001), and As severity (r=0.71, p<0.001) with no correlations in Group 2. ACT scores were lower in Group 1 than Group 2 (10.33±0.92 vs 16.65±0.72).

Conclusion: Uncontrolled As, T2DM, and obesity create chronic inflammation. Positive correlations between obesity indicators and levels of the inflammatory markers IL-6, TNF-α, and CRP confirms adipose tissue cytokine overproduction. The strong correlation between BMI and the severity of As and ACT scores shows metabolic and inflammatory status impacts asthma control.

R146

CURRENT BIOLOGIC THERAPY WEANING PRACTICES IN ASTHMA: A SURVEY OF U.S. ALLERGISTS

A. Kaur[1], T. Deshpande[2], S. Sekhsaria[3], S. Thapaliya[*4], *1. Brooklyn, NY; 2. Chantilly, VA; 3. Baltimore, MD; 4. Shreveport, LA*

Introduction: Biologic therapies have substantially improved outcomes in patients with severe asthma. However, limited evidence exists regarding tapering and discontinuation after disease control. We sought to characterize current biologic weaning practices and perspectives among practicing allergists in the United States.

Methods: A cross-sectional electronic survey using Google Forms consisting of 11 questions was distributed via email to practicing allergists (from the ACAAI member directory) across the United States in 3 rounds between July 2025 and January 2026. Survey items assessed biologic prescribing practices, timing and methods of weaning, duration of therapy before discontinuation, reasons for weaning, and opinions regarding the need for FDA-mandated Phase IV studies. Responses were analyzed using descriptive statistics.

Results: A total of 142 allergists completed the survey. Nearly all reported prescribing biologics for asthma. Overall, 77% reported attempting biologic weaning in patients with controlled asthma. Most initiated weaning after 12 months of sustained asthma control. The most common weaning strategy (41.6%) was maintaining the same biologic dose while doubling the dosing interval. Most (25.2%) discontinued 2 years after sustained asthma control. The leading reason for biologic weaning was economic burden (85.6%). Most respondents supported FDA-mandated Phase IV studies evaluating biologic weaning and discontinuation.

Conclusion: Biologic weaning after sustained asthma control is common among U.S. allergists, although considerable variability exists in the timing, duration, and methods of de-escalation. Economic burden is the predominant factor driving biologic weaning. FDA-mandated Phase IV studies for weaning biologics may help establish evidence-based recommendations that optimize patient outcomes while reducing healthcare costs.

THE ALLERGISTS' FOUNDATION of the American College of Allergy, Asthma & Immunology
Community Grant Recipient

R147

DEVELOPMENT OF A MACHINE LEARNING ALGORITHM TO PREDICT 30-DAY EMERGENCY DEPARTMENT READMISSIONS FOR ASTHMA EXACERBATIONS

R. Lee, W. Hsu, J. Bernstein, P. Ryan, J. Bernstein[*], *Cincinnati, OH*

Introduction: Asthma affects over 4.5 million US children, with 1 in 12 requiring emergency department (ED) visits. This study sought to develop machine learning algorithms (MLAs) capable of predicting 30-day pediatric asthma ED readmissions