Patients with severe asthma initiating biologics exhibit clinical responses and super-responses, but 40 to 50% do not meet response criteria, according to a study published online June 22 in *Allergy*. 
Eve Denton, M.B.B.S., from Alfred Health in Melbourne, Australia, and colleagues examined responsiveness to biologics in a real-world population of adults with severe asthma. Participants in the International Severe Asthma Registry (ISAR) with ≥24 weeks of follow-up were categorized as those who initiated or did not initiate biologics.

Treatment responses were examined in various domains: forced expiratory volume in one second (FEV₁) increase by ≥100 mL, improved asthma control, annualized exacerbation rate (AER) reduction ≥50%, and any long-term oral corticosteroids (LTOCS) dose reduction. Overall, 5.3% of the patients in ISAR met the inclusion criteria for the trial; 2,116 of 8,451 initiated biologics.

The researchers found that compared with noninitiators, biologic initiators had worse baseline impairment, despite having similar biomarker levels. Of the initiators, about half or more had treatment responses: 59% AER reduction, 54% FEV₁ increase, 49% improved control, and 49% reduced LTOCS; of these, 32, 19, 30, and 39%, respectively, were super-responses. Compared with noninitiators, biologic initiators more often had responses/super-responses; however, about 40 to 50% of initiators did not meet the criteria for response.

"These findings justify further research to determine whether initiating biologics earlier—before asthma causes irreversible lung damage—may increase the likelihood of achieving a response or super-response," the authors write.

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