

Spotlight on Health

Allergic Asthma

May is *National Asthma and Allergy Awareness Month*. With more pollen in the air, it may be an especially difficult time of year for patients with asthma who also have allergies—the comorbid condition known as *extrinsic* or *allergic* asthma. About 25 million people in the United States have asthma, and its prevalence has increased consistently over the last several decades.¹ Since an estimated 70% of people with asthma also have allergies,^{2,3} as many as 17.5 million people with asthma could have increased symptoms this time of year.

Economic Burden of Asthma

Asthma is one of the most expensive chronic diseases to manage, costing about \$56 billion a year in the United States alone.⁴ Medications, health care services, and indirect costs, such as missed work and school, are major components of this expense. Because the cost of asthma in terms of dollars, health, and quality of life are so high, improved asthma care has long been a priority for the Centers for Disease Control and Prevention and the National Institutes of Health.⁴

Clinical Consequences of Poorly Controlled Asthma

Not all asthmatic individuals respond well to medications. Although noncompliance is always a concern for these patients, poor asthma control is often due to other comorbidities, including allergies, that go unrecognized or untreated.^{4,5} Moreover, patients with poor asthma control have more frequent exacerbations, more serious exacerbations that require hospitalization, and a higher risk for asthma-related death.⁵

Regular allergen exposure is a common cause of persistent asthma that often goes unrecognized. Ongoing allergen exposure leads to airway inflammation that renders the airways swollen with mucous and edema, and hyperreactive. In turn, this leads to frequent asthma symptoms, and potentially, to a serious asthma attack requiring emergency intervention or hospitalization. Along with acute changes, chronic airway inflammation leads to smooth muscle hypertrophy and fibrosis. Over time, there may be irreversible changes to the airway architecture and fixed reductions in airflow. Ultimately, this airway remodeling can lead to chronic obstructive lung disease.⁵



Common Allergic Asthma Triggers

- Molds
- Pollen
- Animal dander
- Cockroach droppings
- Dust mite droppings

Facts in the US^{1,6}

- 40 to 50 million: number of people with allergic disease
- 25 million: number of people with asthma
- 17.5 million: number of people with allergic asthma
- 11.5 million: number of people with asthma attacks in 2015
- 1.6 million: number of people with asthma-related emergency department visits in 2013
- 3,615: number of asthma-related deaths in 2015

The Role of Allergy Testing in Guideline-Based Asthma Care

Being on the front lines of patient care, primary care providers have a unique opportunity to improve asthma outcomes and reduce costs by following National Asthma Education and Prevention Program (NAEPP) guidelines.^{5,6} The most recent version states that, along with the appropriate use of medications, anyone with asthma, at any level of severity, should be assessed for respiratory allergies.⁵ This recommendation is also supported by a joint task force of 2 related medical societies: the American Academy of Allergy, Asthma and Immunology and the American College of Allergy, Asthma and Immunology.⁶

For most patients with asthma, history does not provide enough information to diagnose atopy or to identify specific triggers. Thus, NAEPP guidelines recommend skin or blood allergy testing for all asthma patients.⁵ However, because of limited access to skin testing, serum IgE testing is often more readily available to primary care providers. Sometimes, it is also the safer option.⁶

Once a patient's allergic trigger(s) are known, a focused environmental control plan can be developed. The goals of such a plan are to reduce exposure and improve asthma control.⁵ Accurately identifying asthma as allergic or non-allergic can also help decide whether a patient should be referred to an allergist or pulmonologist, if additional expertise is needed to improve asthma control.

How Quest Diagnostics Can Help

Quest offers ImmunoCAP® Specific IgE blood tests, which can be used to identify hundreds of allergens. Healthcare providers can request specific allergens or panels of allergens relevant to specific geographic regions and settings. Quest also offers panels for mold, insect sting, and childhood (food and environmental) allergens.

References

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