

The Value of the Allergy/Immunology Specialist

PARTNERS IN OPTIMIZING PATIENT CARE



Why Refer to an Allergist/Immunologist?

The allergy/immunology (A/I) specialist offers unique expertise that strengthens patient care across specialties. By ensuring diagnostic precision, removing incorrect medication allergy labels and introducing advanced therapeutic options, these specialists drive improved outcomes, decrease emergency department reliance and support more sustainable healthcare utilization.

Clinical Impact at a Glance

80+ million Americans are affected by allergic diseases and asthma

When the allergist/immunologist directs care, there are reductions in ER visits and hospitalizations and an increase in productivity

The allergist/immunologist can often provide safer, more effective treatment options through accurate diagnosis and precision patient centered therapy

Anaphylaxis¹



The problem

Lifetime prevalence of anaphylaxis is estimated at 1.6–5.1%.

- Foods are the leading cause in children
- Medications are the leading cause in adults
- Mast cell disorders can be a hidden cause of idiopathic anaphylaxis

Why it matters

Anaphylaxis is unpredictable, life-threatening and a major driver of ER visits and hospitalizations. Patients and families often live in fear of recurrence.

How the A/I specialist can help

- Provide accurate diagnosis and identification of relevant triggers
- Develop and personalize anaphylaxis action plans
- Prescribe and educate on epinephrine use
- Counsel patients on avoidance strategies and risk reduction
- Educate patients with mast cell disorders on appropriate treatments

Medication Allergies & Delabeling²



The problem

A significant proportion of individuals who are labeled as allergic to medications may not actually have a true allergy, as symptoms are often misidentified or misunderstood.

Why it matters

Incorrect medication allergy labels lead to patients receiving second line, often more expensive medications, potentially increasing risks of C. difficile infection, antibiotic resistance and suboptimal treatment.

How the A/I specialist can help

- Skin testing and safe introduction protocols to confirm or rule out medication allergy (antibiotics, chemotherapeutics, biologics)
 - » Penicillin allergy is reported by 10% of patients, but nearly all (>95%) are proven to be not allergic
 - » The vast majority (70%) of patients with penicillin allergy lose the allergy over time
 - » Desensitization when critical drugs are required
- Targeted support for:
 - » **Surgical specialties:** Ensure optimal pre- and post-op antibiotics
 - » **Heme/Oncology:** Enable chemotherapeutic administration or transplant preparation
 - » **Ob-Gyn:** Ensure safe Group B Strep treatment during pregnancy
 - » **Hospitalists/Primary Care:** Remove unnecessary allergy labels for safe, appropriate prescribing

Radiocontrast Reactions³



The problem

Patients with adverse reactions to radiocontrast media are often mislabeled "radiocontrast allergic," which can limit access to needed imaging studies.

Why it matters

In the past, higher osmolality ionic iodinated radiocontrast caused immediate reactions in 10-12% of patients. Newer non-ionic low-osmolality iodinated media and gadolinium agents have a much lower risk of immediate reaction (0.5%) with only a 0.03% risk for severe reactions. In this setting, inaccurate labeling can adversely affect timely diagnosis and treatment of critical conditions.

How the A/I specialist can help

- Carefully review the history, including the specific radiocontrast agent(s) that caused previous symptoms, and provide a safe management plan for patients
- Help accurately label and manage patients with a history of a reaction to a radio contrast material
- Explain how seafood allergy is not a contraindication for the use of iodinated contrast material

Food Allergy⁴



The problem

Food allergies affect 1 in 13 children and 1 in 10 adults. Many patients live with uncertainty about their true triggers, severity and prognosis.

Why it matters

Undiagnosed or misdiagnosed food allergies result in unnecessary dietary restrictions, diminished quality of life, higher healthcare costs and heightened risk of severe reactions. Families are often left navigating fear and misinformation.

How the A/I specialist can help

- Identify true triggers through precise testing
- Provide counseling on allergen avoidance and emergency planning
- Support tolerance development and desensitization when appropriate
- Counseling regarding likelihood of outgrowing certain food allergies
- Guide patients through emerging therapies that are transforming standards of care

Asthma & Respiratory Disease⁵



The problem

Up to 80-90% of children and 50% of adults with persistent asthma have underlying allergic triggers. Many patients remain uncontrolled despite guideline-based therapies.

Why it matters

Uncontrolled asthma increases ER visits, hospitalizations, oral steroid use and missed school or work days, impacting patient quality of life and healthcare costs.

How the A/I specialist can help

- Identify and address allergic triggers
- Identify and treat other triggers e.g. chronic rhinosinusitis, GERD
- Provide environmental control guidance
- Offer personalized therapies, including immunotherapy if needed
- Prescribe biologics that reduce exacerbations, improve quality of life and decrease healthcare utilization

Chronic Rhinosinusitis (CRS)⁶



The problem

CRS affects 8-12% of the population and is a leading cause of antibiotics used in the primary and acute care settings despite a lack of FDA-approved antibiotics for this condition.

Why it matters

CRS can worsen asthma symptoms, contribute to prolonged often ineffective antibiotic use and frequently leads to sinus surgery — with mixed outcomes.

How the A/I specialist can help

- Treat the underlying inflammation rather than symptoms alone
- Reduce the need for surgery and repeated antibiotics
- Improve congestion, loss of smell and control of asthma

Immunodeficiency Disorders⁷



The problem

Approximately 1 in 1,200 Americans have a primary immunodeficiency disorder. Many remain undiagnosed until recurrent infections or complications develop. Secondary immunodeficiencies are also increasingly common due to immunomodulatory drugs.

Why it matters

Undiagnosed or untreated immunodeficiency can lead to recurrent infections, progressive systemic disease and early mortality.

How the A/I specialist can help

- Evaluate for an immunodeficiency disorder when infections are atypical, recurrent, or severe
- Provide targeted therapies to improve immune function and prevent infections
- Monitor and manage secondary immunodeficiency in patients on immunomodulatory medications

Stinging Insect Reactions (Hymenoptera)⁸



The problem

Potentially life-threatening systemic reactions to insect stings occur in 0.4–0.8% of children and up to 3% of adults. Patients with large local reactions have a 4-10% risk of systemic reactions, and those with a prior severe systemic reaction face recurrence risk as high as 50%.

Why it matters

Sting-induced anaphylaxis is sudden and unpredictable, driving ED visits, hospitalizations and significant patient anxiety/avoidance behaviors (including work and outdoor limitations). Risk can be amplified by comorbid asthma or concurrent medications (e.g., β -blockers, ACE inhibitors).

How the A/I specialist can help

- Test for stinging insect allergy with venom-specific testing
- Screen for underlying mast cell disease which can increase the risk for systemic reactions
- Educate on avoidance strategies
- Prescribe and train on self-administered epinephrine use and provide a personalized anaphylaxis action plan
- Treat with immunotherapy over several years, which reduces the risk of future anaphylaxis to less than 5%

Eosinophilic Esophagitis (EoE)^{9, 10, 11}



The problem

Eosinophilic esophagitis (EoE) is a disease of the esophagus with significantly increasing prevalence in both children and adults in the US. Up to 54% of patients who present with esophageal food impaction on an emergency basis have EoE. A significant number of patients seen in the emergency room for EoE related symptoms are lost to follow-up.

Why it matters

EoE is the leading cause of dysphagia worldwide. It is also the leading cause of food impaction for children and young adults. Left untreated, EoE can cause esophageal strictures which often require dilation procedures, recurrent food impaction, failure to thrive, irritability and poor quality of life. Other atopic conditions such as allergic rhinitis, asthma, food allergies and eczema are present in up to 75% of patients with EoE.

How the A/I specialist can help

- Test for relevant environmental allergies
- Test for suspected food allergies
- Guide food avoidance based on skin test results and clinical history
- Educate about empiric food elimination diets
- Prescribe biologic treatment options

Urticaria and Angioedema¹²



The problem

Urticaria (hives) affects up to 20% of individuals and can occur as part of anaphylaxis or with no identifiable trigger. Approximately 50% of individuals with urticaria also experience angioedema (deep tissue swelling). Chronic urticaria and/or angioedema affects about 1% of the population. Some patients with isolated angioedema have symptoms due to treatable underlying genetic causes or secondary to medications they are taking.

Why it matters

Chronic urticaria and angioedema can be profoundly distressing for both patients and clinicians. The associated quality-of-life impairment is comparable to that of patients with coronary artery disease awaiting bypass surgery. Fortunately, management strategies have advanced with the development of more effective therapies.

How the A/I specialist can help

- Identify underlying etiology
- Order targeted testing for chronic urticaria as this may be linked to infections, autoimmune conditions, or, rarely, malignancy
- Order targeted testing for isolated angioedema which may be linked to underlying C1 inhibitor deficiency
- Implement guideline-based treatment, including biologics, to minimize reliance on oral corticosteroids or other medications with significant risk for side effects.

Atopic Dermatitis¹³



The problem

Atopic dermatitis (AD) is a chronic inflammatory skin disease that commonly begins in childhood but can persist or present in adults. Its prevalence continues to rise globally, with a prevalence of 13% in children and 5% in adults in the US.

Why it matters

Atopic dermatitis can significantly affect quality of life, causing chronic itching, sleep loss, anxiety and depression. The disease can be a gateway condition in the *atopic march*, with high rates of comorbid food allergy, allergic rhinitis and/or asthma. Uncontrolled AD can increase the risk of skin infections (*Staphylococcus aureus*, *eczema herpeticum*). It contributes to substantial healthcare costs and lost productivity.

How the A/I specialist can help

- Perform allergy evaluation for environmental and food triggers
 - » Assess for IgE and non-IgE mediated triggers
- Guide skin barrier repair and eczema care routines
- Provide education on allergen and irritant avoidance
- Prescribe and monitor advanced therapies (e.g., biologics)
- Coordinate multidisciplinary care with dermatology, primary care and nutritional specialists
- Support families with disease education and adherence strategies.

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