



# Subcutaneous Immunotherapy (SCIT) for Aeroallergen Immunotherapy

Allergic disease is a prevalent problem that affects approximately 20-25% of the population.<sup>1, 2</sup> Diagnosis of this disease process is based on clinical evaluation and quantitative in vitro or in vivo testing necessary before initiating immunotherapy.<sup>3</sup> In addition to allergen avoidance and pharmacotherapy, additional treatment options include subcutaneous immunotherapy. This option has been shown to be effective in multiple randomized controlled trials in patients with allergic disease.<sup>2, 4</sup> Clinically relevant allergen identification and documentation of IgE-mediated disease is necessary prior to starting subcutaneous immunotherapy. Consideration for immunotherapy is based on the severity and duration of disease and response to or tolerance to medical therapy.<sup>2</sup>

The decision to begin allergy immunotherapy might depend on number of factors, including but not limited to: patient preference, adherence, medication requirements, response to avoidance measures, adverse effects of medications, coexisting allergic rhinitis and asthma, and possible prevention of asthma in patients with allergic rhinitis. Additionally, the level of sensitivity will determine the starting dose for safe and effective therapy.<sup>5</sup>

Individual results may vary; however. On average, duration of therapy is usually 3-5 years for adequate immunologic response.<sup>6, 7, 8, 9</sup> A physician or provider

must evaluate patients periodically during therapy, to determine safety and efficacy, monitor adverse reactions, and make appropriate adjustment to therapy, especially during the escalation phase. Though extremely rare, the risks for serious potentially life-threatening responses exist.<sup>10</sup> Patients need to be counseled on the potential risks and benefits of immunotherapy with informed consent.<sup>11</sup>

1 *Airborne Allergens: Something in the Air*. NIH Publication No. 03-7045; National Institute of Allergy and Infectious Disease. US Dept of Health and Human Services; 2003.

2 Schiller, JS., Lucas, JW., Peregoy, JA. *Summary of Health Statistics for US Adults; National Health Interview Survey 2011*. National Center for Health Statistics US Dept of Health and Human Services for Disease Control and Prevention. *Vital Health Stat* 2012; (252); 12 207.

3 Krouse JH, Mabry RL. *Skin Testing for Inhalant Allergy 2003; Current Strategies*. *Oto HNS*:129(4)supplement:S33- 49.

4 *The Journal of allergy and clinical immunology*, vol 102, issue 4, pp 558-62.

5 Gordon, BR. *Immunotherapy: rationale and mechanisms*. *Otolaryngology Head Neck Surgery* 1992; 107:861-865.

6 *Oto-HNS* 1995; 113:597-602.

7 *Allergy* 1996;51:430-433.

8 King HC, Mabry RL, et al. *Allergy in ENT Practice: The Basic Guide*. 2nd ed. New York, Thieme; 2005.

9 Cox L, Cohn JR. *Ann Allergy Asthma Immunol* 2007;98:416-426.

10 Cox L et al. *J Allergy Clin Immunol*. 2011 Jan;127 (1Suppl):S1-55. Epub 2010 Dec 3.

11 Hurst DS, Gordon BR et al. *Safety of Home Based and Office Allergy Immunotherapy: a Multicenter prospective Study*. *OtoHNS* 1999; 121:553-561.

Note: American Academy of Otolaryngic Allergy's (AAOA) Clinical Care Statements attempt to assist otolaryngic allergists by sharing summaries of recommended therapies and practices from current medical literature. They do not attempt to define a quality of care for legal malpractice proceedings. They should not be taken as recommending for or against a particular company's products. The Statements are not meant for patients to use in treating themselves or making decisions about their care. Advances constantly occur in medicine, and some advances will doubtless occur faster than these Statements can be updated. Otolaryngic allergists will want to keep abreast of the most recent medical literature in deciding the best course for treating their patients.