

2124 signs. The duration of such immunotherapy is 3–5 years, with discontinuation being based on minimal symptoms over two consecutive seasons of exposure to the allergen. Clinical benefit appears related to the administration of a high dose of relevant allergen, advancing from weekly to monthly intervals. Patients should remain at the treatment site for at least 20 minutes after allergen administration so that any anaphylactic consequence can be managed. Local reactions with erythema and induration are not uncommon and may persist for 1–3 days. Immunotherapy is contraindicated in patients with significant cardiovascular disease or unstable asthma and should be conducted with particular caution in any patient requiring β -adrenergic blocking therapy because of the difficulty in managing an anaphylactic complication. The response to immunotherapy is associated with a complex of cellular and humoral effects that includes a modulation in T cell cytokine production. Immunotherapy should be reserved for clearly documented seasonal or perennial rhinitis that is clinically related to defined allergen exposure with confirmation by the presence of allergen-specific IgE. Systemic treatment with a monoclonal antibody to IgE (omalizumab) that blocks mast cell and basophil sensitization has efficacy for allergic rhinitis and can be used with immunotherapy to enhance safety and efficacy. However, current approval is only for treatment of patients with persistent allergic asthma not controlled by inhaled glucocorticoid therapy. A sequence for the management of allergic or perennial rhinitis based on an allergen-specific diagnosis and stepwise management as required for symptom control would include the following: (1) identification of the offending allergen(s) by history with confirmation of the presence of allergen-specific IgE by skin test and/or serum assay; (2) avoidance of the offending allergen; and (3) medical management in a stepwise fashion (**Fig. 376-4**). Mild intermittent symptoms of allergic rhinitis are treated with oral antihistamines, oral CysLT₁ receptor antagonists, intranasal antihistamines, or intranasal cromolyn prophylaxis. Moderate to more severe allergic rhinitis is managed with intranasal glucocorticoids plus oral antihistamines, oral CysLT₁ receptor antagonists, or antihistamine-decongestant combinations. Persistent allergic rhinitis requiring the daily use of intranasal glucocorticoids with add-on interventions such as oral antihistamines, decongestant combinations, or topical ipratropium merits consideration of allergen-specific immunotherapy. Even a brief course of oral prednisone can be indicated for rapid relief of severe allergic rhinitis symptoms.