3. ALLERGIC RHINITIS

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We conducted a MEDLINE search of review articles on rhinitis between the years of 1990-1995 and selected articles pertaining to allergic rhinitis. We also performed a MEDLINE search of randomized controlled trials on allergic rhinitis patients between January 1990 and May 1995. Identified studies tended to use investigative therapies or compare new formulations of nasal steroids or antihistamines to previously used formulations. Since the general approach to treatment of allergic rhinitis is currently not controversial, these were not separately reviewed.

IMPORTANCE

Allergic rhinitis ranks thirteenth among the principal diagnoses rendered by physicians, based on the 1991 National Ambulatory Medical Care Survey (Vital and Health Statistics, Series 13, No. 116), accounting for over 11 million visits to the physician in that year. In fact, allergic rhinitis affects about 20 percent of the American population (Bernstein, 1993). Allergic rhinitis results in limitation of daily activities, and time lost from school and work (Bernstein, 1993). Complications of allergic rhinitis include serous otitis media (especially in children) and bacterial sinusitis (Kaliner and Lemanske, 1992).

EFFICACY/EFFECTIVENESS OF INTERVENTIONS

Diagnosis

The history is the fundamental diagnostic tool in allergic rhinitis. Symptoms include sneezing, itching of the nose, eyes, palate or pharynx, nasal stuffiness, rhinorrhea and post-nasal drip (Kaliner and Lemanske, 1992). A careful history of allergen exposure may reveal exacerbating allergies. In addition, one should inquire as to use of medications, especially nose drops or sprays. On physical exam, pale, edematous nasal turbinates and clear secretions are characteristic.
Temperature elevation, purulent nasal discharge, or cervical adenopathy should indicate the possibility of sinusitis, otitis, pharyngitis, or bronchitis (Kaliner and Lemanske, 1992).

Selected skin testing with appropriate allergens is the least time-consuming and expensive diagnostic modality, when confirmation of allergen sensitivity is necessary. Specific serum IgE determinations, although more expensive, may also be employed. Results need to be interpreted in the context of the patient’s history. Total IgE levels and peripheral eosinophil counts are neither sensitive nor specific. Nasal smears from eosinophils are not specific for allergic rhinitis (Kaliner and Lemanske, 1992).

Treatment

Treatment rests with allergen avoidance, use of pharmaceutical agents and, when indicated, immunotherapy. Careful counseling regarding allergen avoidance is the mainstay of treatment (Naclerio, 1991). If it is unclear which allergen causes symptoms, skin testing should be performed (Naclerio, 1991). In addition, oral antihistamines (first- or second-generation H1-antagonistic drugs) are appropriate first-line agents, and decrease local and systemic symptoms of allergic rhinitis (Kaliner and Lemanske, 1992; Bernstein, 1993). Antihistamines may also be used in combination with decongestants for symptomatic relief. Topical nasal decongestants should be used for a maximum of four days. Nasal cromolyn sodium can be useful as a single agent, but requires regular, frequent dosing for optimal benefit (Bernstein, 1993). Topical nasal corticosteroids are effective in treating allergic rhinitis, but have no effect on ocular symptoms. Local burning, irritation, epistaxis and, very rarely, nasal septal perforation, are the reported side effects. Currently, both antihistamines and topical steroids have been advocated as first-line agents (Kaliner and Lemanske, 1992).

Immunotherapy should be considered if symptoms are present more than a few weeks of the year and medication and avoidance measures are ineffective (Naclerio, 1991). Allergy injections are reported to reduce symptoms in more than 90 percent of patients (Bernstein, 1993). Reported toxicities, although uncommon, include hives, asthma and
hypotension. The duration of treatment for optimal effect and maintenance of benefits after treatment cessation are unclear (Creticos, 1992).
# RECOMMENDED QUALITY INDICATORS FOR ALLERGIC RHINITIS

The following criteria apply to children ages 2 to 18.

## Diagnosis

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<thead>
<tr>
<th>Indicator</th>
<th>Quality of evidence</th>
<th>Literature</th>
<th>Benefits</th>
<th>Comments</th>
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<tbody>
<tr>
<td>1. If a diagnosis of allergic rhinitis is made, the search for a specific allergen by history should be documented in the chart (for initial history).</td>
<td>III</td>
<td>Kaliner and Lemanske, 1992; Naclerio, 1990</td>
<td>Decrease nasal congestion, rhinorrhea, and itching.</td>
<td>Allergen avoidance is the mainstay of treatment</td>
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<td>2. If a diagnosis of allergic rhinitis is made, history should include whether the patient uses any topical nasal decongestants.</td>
<td>III</td>
<td>Bernstein, 1993</td>
<td>Decrease nasal congestion, rhinorrhea, and itching.</td>
<td>Chronic use of topical nasal decongestants can cause rhinitis medicamentosa and may mimic allergic rhinitis</td>
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## Treatment

<table>
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<td>3. Treatment for allergic rhinitis should include at least one of the following: antihistamine, nasal steroids, nasal cromolyn.</td>
<td>I-III</td>
<td>Naclerio, 1991; Kaliner and Lemanske, 1992</td>
<td>Decrease nasal congestion, rhinorrhea, and itching.</td>
<td>These have proven efficacy in allergic rhinitis</td>
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<td>4. If nasal decongestants are prescribed, duration of treatment should be for no longer than 4 days.</td>
<td>II</td>
<td>Stanford et al., 1992; Barker, 1991</td>
<td>Decrease nasal congestion, rhinorrhea, and itching.</td>
<td>Longer treatment may cause rebound congestion.</td>
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### Quality of Evidence Codes:

I: RCT  
II-1: Nonrandomized controlled trials  
II-2: Cohort or case analysis  
II-3: Multiple time series  
III: Opinions or descriptive studies
REFERENCES – ALLERGIC RHINITIS


