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Editorial

# The Italian Version of ETDQ-7 in Patients with Eustachian Tube Dysfunction

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## Introduction

Allergic rhinitis (AR) is a common chronic respiratory condition that significantly impacts the quality of life of millions globally. Characterized by nasal congestion, sneezing, rhinorrhea, and itching, it is often triggered by allergens such as pollen, dust mites, mold, and animal dander. Though pharmacological treatments such as antihistamines, nasal corticosteroids, and decongestants offer symptomatic relief, they do not address the root cause of the condition. Immunotherapy, specifically allergen immunotherapy (AIT), presents a unique therapeutic approach aimed at modifying the underlying allergic response rather than just managing symptoms. Despite its efficacy, public awareness and adoption remain limited due to a lack of education, misconceptions, and accessibility challenges.

This article explores the need for greater awareness of immune therapy for allergic rhinitis, delving into its mechanisms, benefits, challenges, and strategies for enhancing understanding and adoption.

## Understanding allergic rhinitis

Allergic rhinitis is an IgE-mediated inflammatory condition resulting from an exaggerated immune response to allergens. It is classified as seasonal (hay fever) or perennial, depending on the nature of the allergen. According to the World Health Organization (WHO), AR affects 10–30% of the global population, with rising prevalence in urbanized areas due to increased allergen exposure and environmental pollutants.

The socio-economic burden of AR is significant. Studies indicate that AR leads to reduced productivity, impaired cognitive function, and substantial healthcare costs. While medications provide temporary relief, they fail to prevent disease progression or reduce sensitivity to allergens, underscoring the need for a more sustainable intervention.

## What is allergen immunotherapy (AIT)?

Allergen immunotherapy, commonly referred to as immune therapy, is a disease-modifying treatment aimed at inducing long-term tolerance to specific allergens. Unlike symptomatic treatments, AIT targets the underlying mechanisms of allergic disease, offering lasting benefits.

## Mechanism of action:

- AIT works by gradually exposing the patient to increasing doses of an allergen, either subcutaneously (subcutaneous immunotherapy, SCIT) or sublingually (sublingual immunotherapy, SLIT).
- This repeated exposure retrains the immune system to tolerate the allergen, leading to a shift from a Th2-dominant response to a regulatory T-cell response, reducing IgE production and increasing IgG4 levels.

## Forms of AIT

- **Subcutaneous Immunotherapy (SCIT)**: Administered via injections, usually in a healthcare setting.
- **Sublingual Immunotherapy (SLIT)**: Delivered in the form of drops or tablets taken under the tongue, suitable for home administration.

## Efficacy

AIT has demonstrated significant clinical efficacy in reducing symptoms and medication use for AR. Meta-analyses suggest that AIT can offer benefits lasting up to 10 years post-treatment, unlike pharmacotherapy.

## Challenges in awareness and adoption

Despite its proven benefits, awareness and adoption of AIT for allergic rhinitis remain low globally. Several factors contribute to this gap.

### Lack of patient education

- Many patients remain unaware of AIT as a treatment option. A 2020 survey found that only 20–30% of individuals with AR had heard of AIT, and even fewer understood its benefits.
- Misinformation about the safety and effectiveness of AIT is widespread.

### Limited physician recommendation

- Primary care physicians, often the first point of contact for AR patients, may lack comprehensive knowledge of AIT.
- Specialist referrals to allergists are frequently delayed or absent, leading to prolonged reliance on symptomatic treatments.

### Cost and accessibility

- AIT requires a significant upfront cost and commitment, often deterring patients despite its long-term cost-effectiveness.
- Access to trained allergists and immunotherapy facilities is limited, particularly in low-income and rural settings.

### Perceived risks

- Concerns about adverse reactions, especially anaphylaxis with SCIT, discourage patients from pursuing AIT.
- Misunderstandings about the duration and commitment required for treatment further deter adoption.

### The need for greater awareness

To address the challenges surrounding immune therapy for allergic rhinitis, increased awareness among patients, healthcare providers, and policymakers is essential. Key reasons for promoting awareness include:

### Empowering patients

- Education about AIT enables patients to make informed decisions, reducing dependence on short-term solutions like antihistamines.
- Testimonials from successfully treated patients can further motivate others to consider AIT.

### Enhancing physician engagement

- Training programs and workshops for primary care physicians can improve understanding of AIT, leading to more frequent referrals.
- Clear guidelines for AIT eligibility, protocols, and management can streamline its integration into routine practice.

### Highlighting long-term benefits

Unlike pharmacotherapy, AIT provides lasting relief by modifying the immune response. Communicating this advantage is vital for overcoming initial resistance.

### Reducing healthcare burden

Increased adoption of AIT can lead to significant healthcare savings by reducing the reliance on medications and repeated doctor visits for AR management.

### Strategies to improve awareness

Several strategies can be employed to enhance awareness of immune therapy for allergic rhinitis.

### Public education campaigns:

- Collaborations between healthcare organizations, patient advocacy groups, and governments can promote awareness through social media, webinars, and informational brochures.
- Highlighting the role of AIT in improving quality of life can appeal to a broader audience.

### School and workplace initiatives

Targeted programs in schools and workplaces can educate individuals about AR and the potential of immune therapy, particularly in high-risk populations.

### Physician training and guidelines

- Comprehensive training for primary care providers and allergists can bridge knowledge gaps.
- Dissemination of evidence-based guidelines, such as those by the American Academy of Allergy, Asthma and Immunology (AAAAI) and European Academy of Allergy and Clinical Immunology (EAACI), can standardize care.

### Policy advocacy

Advocating for insurance coverage and subsidies for AIT can make it more accessible.

Government funding for research and public health initiatives can further support awareness efforts.

### Digital tools and telemedicine

- Mobile apps and telemedicine platforms can provide accessible information about AIT, helping patients understand their treatment options.

- Virtual consultations with allergists can overcome geographical barriers.

### Success stories and case studies

Real-world success stories can effectively illustrate the transformative potential of AIT. For example, a 2021 study reported that patients who completed a three-year AIT regimen experienced a 60% reduction in symptom severity and medication use, with sustained benefits five years post-treatment. Sharing such cases through media outlets and patient forums can inspire confidence in AIT.

## Conclusion

Awareness of immune therapy for allergic rhinitis is crucial for advancing its adoption and ensuring better patient outcomes. As a disease-modifying treatment, AIT offers a promising alternative to conventional pharmacological approaches, but its potential remains underutilized due to education gaps, accessibility issues, and misconceptions.

Efforts to enhance awareness must prioritize patient education, physician training, and policy support, leveraging both traditional and digital platforms to reach diverse audiences. By addressing these barriers, the medical community can pave the way for a broader acceptance of AIT, ultimately improving the lives of individuals with allergic rhinitis [1-5].

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