Differences in recommendations between the Allergic Rhinitis and its Impact on Asthma Update 2010 and US Rhinitis Practice Parameters

To the Editor:

The Allergic Rhinitis and its Impact on Asthma (ARIA) guidelines are widely used for guidance regarding the treatment of allergic rhinitis (AR), and we commend the recent update undertaken by the review group.[1] However, it is important to recognize the differences between ARIA and the US Rhinitis Practice Parameters and underscore that the US approach is sound.[2]

ARIA is a global document that recommends some treatments not approved in the United States (eg, sublingual immunotherapy). Also, its guidance on the use of nasal antihistamines (NAHs) and oral antihistamines (OAHs) varies from current US practice.[1,2] AR is one of the most common conditions seen by US health professionals, and management strategies should reflect carefully reviewed and graded evidence.[2]

Not supported in US experience are the ARIA update recommendation 14 stating that NAH should not be used for perennial AR (PAR) and recommendations 15 and 17 promoting use of second-generation OAH over NAH for adults and children with seasonal AR (SAR) and over leukotriene receptor antagonists for AR.[1,2]

In the US, OAH and NAH are approved for first-line treatment of AR, with demonstrated improvements in symptoms and quality of life. Azelastine and olopatadine are safe, well tolerated, and appropriate choices for patients with SAR, especially those with mild-to-moderate disease.[2-6] Azelastine is also approved for PAR on the basis of well designed, prospective, randomized, placebo-controlled studies.[2-6]

There are a number of advantages to intranasal administration. NAHs directly target the inflamed nasal mucosa, and intranasal administration is associated with faster onset of action and potentially lower incidences of systemic side effects.[2]

Meta-analyses have shown NAH to yield lower number needed to treat values than OAH, with efficacy results approaching those of intranasal steroids (INSs).[6,7] A comprehensive evidence-based review of >40 years of data from all medication classes approved to treat AR in the United States identified 38 SAR studies (n = 11,980 adults, 946 children) that met strict inclusion criteria to ensure appropriate matching. When OAH and NAH were used at their indicated US doses, the mean reductions in Total Nasal Symptoms Scores (TNSS) over 2 weeks were comparable.[3] However, taking out direct comparisons that combined oral and spray placebos, the trend was NAH > OAH.

Available data suggest that for nasal congestion, the symptom reported as most bothersome by patients, NAH may be better than OAH.[2-5] Head-to-head comparisons have shown a greater reduction in congestion with azelastine versus oral cetirizine (see references E1 and E2 in this article's Online Repository at www.jacionline.org). On the basis of data available at the time, the US Rhinitis Practice Parameters concluded that that INSs generally are more effective than NAH for controlling AR symptoms.[2] However, since then, direct comparisons have suggested that NAH may be comparable to INS for some patients (see references E3 and E4). No significant differences were observed between olopatadine and fluticasone propionate nasal sprays in a carefully controlled study of patients with mild-to-moderate SAR. Both significantly reduced nasal congestion, although olopatadine had a faster onset of action (see reference E3). Similar results were reported for azelastine compared with triamcinolone nasal spray (see reference E4).

A growing database suggests increased versatility with NAH, including possible use as rescue medication to relieve breakthrough symptoms (based on their quick onset of action) and use as add-on therapy for patients on INS who are still symptomatic.[2-4,6] Whereas little or no symptom improvement is gained adding OAH to INS, in a study comparing azelastine nasal spray, fluticasone nasal spray, and the combination in patients with moderate-to-severe SAR, the reduction in nasal congestion was 31.2% for the combination versus 19.2% and 21.1% for the NAH and INS alone ($P \leq .05$) (see reference E5). INS and NAH reduced ocular symptoms to similar degrees, and the combination to a greater degree than either alone (see references E3-E8). NAH also may benefit patients with nonallergic rhinitis[2,5] (also see references E4 and E5).

Oral antihistamine may be a better choice in young children (especially those at risk of developing asthma), in cases of poor medication compliance (including those who cannot properly use a spray device), and in patients who are bothered most by histamine-associated symptoms (eg, cutaneous itching; red, watery eyes).[2-4]

Oral antihistamine also may be a cost-effective treatment for PAR[2-4] (also see reference E9). However, the complexity of PAR makes assessment difficult, and high-quality studies are limited. We believe that these patients require careful individualization of treatment, and recommendations cannot be generalized at this time. Leukotriene receptor antagonists are also approved for PAR and may be appropriate for some patients, especially children with concomitant asthma and patients who prefer an oral medication but cannot tolerate OAH.[2,8]

Finally, the Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach used in the ARIA update resulted in different evidence ratings than the more traditional approach of the US Rhinitis Practice Parameters.[1,2] It is not clear why, but this result may reflect inclusion in GRADE of subjective assessments regarding the likelihood of bias, inconsistency, or indirectness. ARIA recommendation 15 also cites "probable higher patient preference for an oral versus intranasal route of administration" as a basis for rating, and recommendation 17 cites "a relatively high value on avoiding resource expenditure." We believe that peer recommendations for treatment should be based on sound scientific evidence, focusing on efficacy and safety. Patient preference and cost, although important considerations when optimizing treatment for an individual, are secondary, subjective, and difficult to evaluate in a controlled and prospective manner. Both can be greatly influenced by the physician and health care system as much as by attitudes shaped by media and the patient's social environment.

The overall weight of the evidence supports the use of NAH as first-line therapy. Fast onset and improvement in congestion compared with OAH are particularly compelling reasons to choose NAH. The ARIA recommendation that OAH should be used over NAH is not supported by the current body of evidence and represents an opinion statement rather than one based on data. It might reflect European clinical experience in that NAHs have had limited promotion in Europe with use at different dosages than in the United States: historically, 1 spray/nostril (140 μg/spray) versus 2 sprays/nostril, (137 or 205.5 μg/spray), respectively.

In the United States, we support the approach recommended by the US Rhinitis Practice Parameters, which recommends NAH as first-line therapy.[2] It is our unanimous clinical experience that these medications are useful as a primary therapy.

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Comments on Allergic Rhinitis and its Impact on Asthma (ARIA) guidelines

To the Editor:

The Allergic Rhinitis and its Impact on Asthma (ARIA) guidelines are widely used for guidance regarding the treatment of allergic rhinitis.[1] It is important to recognize the differences between ARIA, developed by a predominantly European committee, and the Practice Parameters on Rhinitis developed in the United States.[2] The Joint Task Force on Practice Parameters in The Diagnosis and Management of Rhinitis: An Updated Practice Parameter recommends in some respects a significantly different approach to the management of rhinitis compared with that recommended in ARIA.

ARIA recommends approaches to treatment not approved in the United States, such as sublingual immunotherapy, which is widely used in Europe. The Practice Parameters on Rhinitis could not appropriately recommend a therapeutic modality that has not been approved in this country. Another difference is that the Practice Parameters on Rhinitis look more favorably on the use of intranasal antihistamines and oral leukotriene antagonists in the management of allergic rhinitis, which is more consistent with current practice in the United States. Although, in developing the Practice Parameters on Rhinitis, the Joint Task Force on Practice Parameters has considered worldwide evidence on the diagnosis and management of rhinitis, it is important to remember that these parameters are developed for patient care in the United States. These evidence-based parameters are based on an extensive review of the literature using search tools such as PubMed. The

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