

Allergic Rhinitis and its impact on asthma update (ARIA 2008). The Belgian perspective

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Abstract. *Allergic Rhinitis and its impact on asthma update (ARIA 2008). The Belgian perspective.* Allergic rhinitis is a major chronic respiratory disease because of its prevalence, impacts on quality of life and work/school performance, economic burden, and links with asthma. Evidence based guidelines and recommendations for the diagnosis and management have been published in the first Allergic Rhinitis and its Impact on Asthma (ARIA) document. This document has now been updated: ARIA 2008. In this article, it is aimed to summarize the newly updated and published version of "Allergic Rhinitis and its Impact on Asthma (ARIA) 2008" in a Belgian perspective.

Allergic rhinitis is a symptomatic disorder of the nose induced after allergen exposure due to an IgE-mediated inflammation of the membranes lining the nose. It was defined in 1929 "The three cardinal symptoms in nasal reactions occurring in allergy are sneezing, nasal obstruction and mucous discharge."

Allergic rhinitis is a global health problem. Patients from all countries, all ethnic groups, all ages suffer from allergic rhinitis. Allergic rhinitis causes major illness and disability worldwide. Allergic rhinitis affects social life, sleep, school and work.¹⁻³ The economic impact of allergic rhinitis is substantial. However, rhinitis is still underdiagnosed and undertreated.⁴

Over 600 million patients suffer from this disease⁵⁻⁸ but there are still differences between rural and urban areas, both in developed and developing countries,^{7,9-11} possibly because of differences in immune reactions.¹²

In 1999, during the ARIA (Allergic Rhinitis and its Impact on Asthma) WHO workshop, an evidence-based document was produced using an extensive review of the literature available up to December 1999.¹³ The statements of evidence for the development of ARIA have followed WHO rules and were based on those of Shekelle *et al.*¹⁴

The ARIA document was intended to be a state-of-the-art for the specialist as well as for the general practitioner and other health care professionals:

- To update their knowledge of allergic rhinitis.
- To highlight the impact of allergic rhinitis on asthma.
- To provide an evidence-based documented revision on the diagnosis methods.
- To provide an evidence-based revision on the treatments available.
- To propose a stepwise approach to the management of the disease.

An update of the ARIA guidelines was however needed because:

- A large number of papers have been published within the past 7 years extending our knowledge.¹⁵⁻²⁰
- The ARIA classification was proposed by an expert group and needed to be validated in terms of classification and management.¹³ New studies showed consistently that "intermittent" and "persistent" are not synonymous of "seasonal" and "perennial".^{21,22} There are now several reports which have validated this classification^{23,24} although some authors proposed to extend the severity of allergic rhinitis to three levels.^{25,26} However, since this would not lead to a difference in treatment, the ARIA experts proposed to continue to classify the severity of rhinitis into "mild" and "moderate/severe".
- Moreover, there were gaps in our knowledge in the first

ARIA documents which were more recently approached. These include:

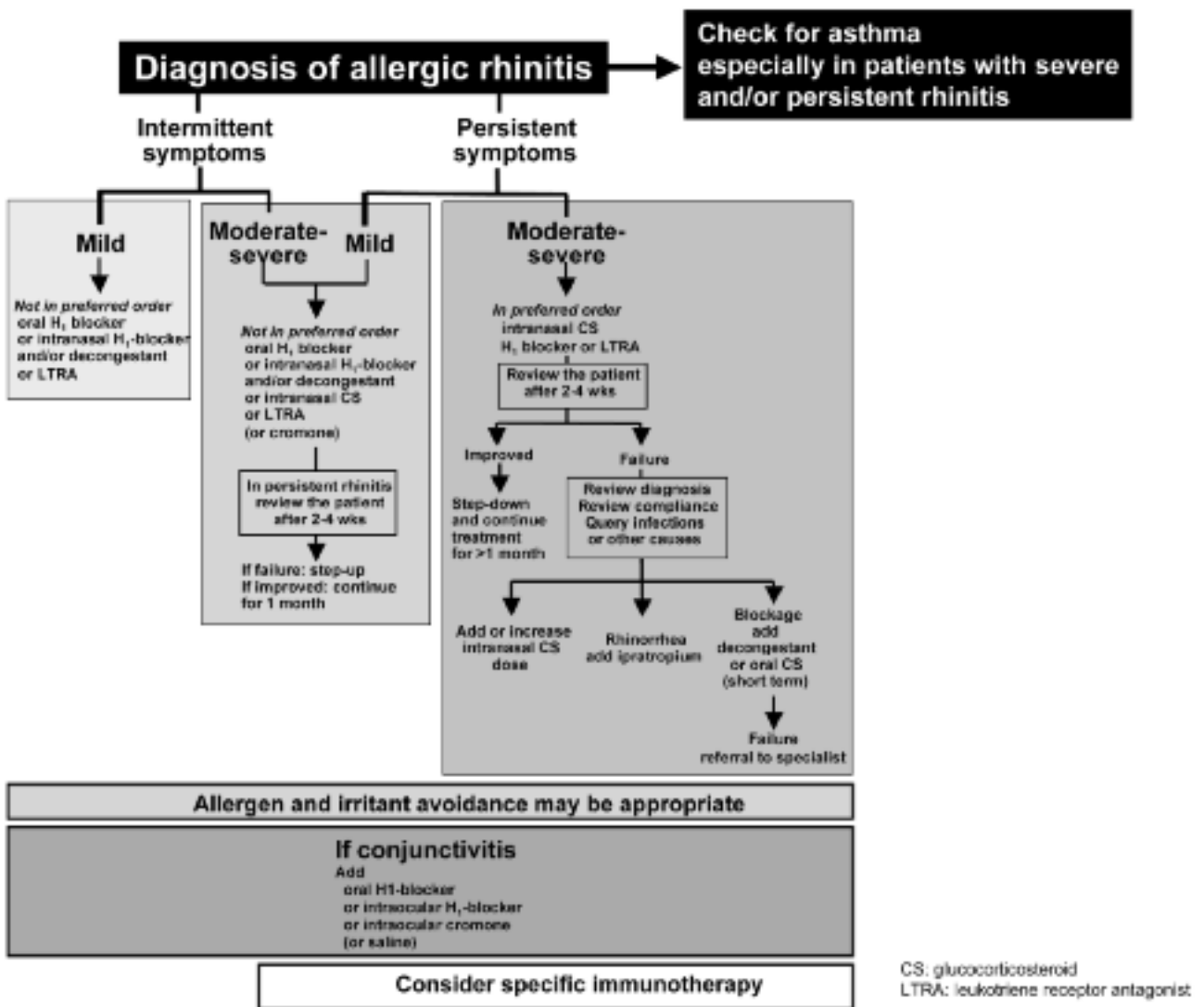
- Some aspects of treatment like complementary and alternative medicine.¹⁶
- Sports and rhinitis in athletes.¹⁷
- Rhinitis and its links with asthma in children.²⁷⁻²⁹

The ARIA update was started in 2004. Several chapters of ARIA

were extensively reviewed using the Shekelle evidence-based model, and papers published in peer-reviewed journals: tertiary prevention of allergy, complementary and alternative medicine, pharmacotherapy and anti-IgE treatment, allergen-specific immunotherapy, links between rhinitis and asthma and mechanisms of rhinitis.¹⁵⁻²⁰ There was then a need for a global document which would highlight the interac-

tions between the upper and the lower airways including diagnosis, epidemiology, common risk factors, management and prevention. Moreover, the allergy perspective should also be targeted to developing countries.³⁰ Local implementation of guidelines is favoured by national initiatives.³¹⁻³³ The ARIA 2008 update has been recently published.³⁴

The grading of evidence and recommendation for management



Legend: CS: glucocorticosteroids; LTRA: leukotriene receptor antagonist

Figure 1
Flow chart for the management of allergic rhinitis

evidence-based system of the ARIA 2008 update does not use the GRADE (Grading of Recommendations Assessment, Development and Evaluation) approach.^{35,36} It is expected that some of the recommendations offered by the 2008 ARIA update may differ when the GRADE approach will be achieved.

A large list of treatments was considered in the ARIA 2008 update.³⁴ Concerning pharmacologic treatments, intra-nasal corticosteroids are the first-line therapy in patients with moderate to severe diseases and is also effective on ocular symptoms,^{37,38} H₁-antihistamines are important treatments for all patients³⁹ and were shown to be effective in persistent rhinitis.^{40,41} Leukotriene receptor antagonists are important for patients with rhinitis and asthma.⁴²⁻⁴⁴ On the other hand, tertiary prevention of allergy is still a matter of debate since clinical trials do not usually show any efficacy of single allergen avoidance measures.¹⁵ Sublingual immunotherapy has proven to be a safe and effective treatment⁴⁵⁻⁴⁸ but clinical trials need to be standardized.⁴⁹ An algorithm of the management of allergic rhinitis is provided (Figure 1). However, there is a continuous progress in our understanding of the mechanisms of allergic rhinitis and novel treatment approaches are constantly published.⁵⁰

Non-allergic rhinitis is still a matter of discussion⁵¹ and may pose some problems to treat.⁵²

Another important aspect of the ARIA was to consider co-morbidities of allergic rhinitis, and in particular asthma. Epidemiologic studies have consistently shown that asthma and rhinitis often co-exist in the same patients in every region of the world.⁵³⁻⁵⁶ The vast

majority of patients with asthma have rhinitis, but the prevalence of asthma in rhinitis patients still needs to be assessed.^{57,58} The treatment of the nose does not impact considerably the lower airways, but there have been some compelling data suggesting that new studies with innovative methods need to be started.^{59,60} Specific immunotherapy in patients with allergic rhinitis has a prolonged effect on the development of asthma when stopped.⁶¹

The perception of patients and physicians about the links between asthma and rhinitis varies between countries, but it appears to be higher than expected.^{62,63} However, the knowledge is not directly translated into practice since fewer physicians co-prescribe treatments for rhinitis and asthma in the same patient.

The recommendations of the ARIA workshop in 1999 are still valid,¹³ and in particular, it is recommended that patients with allergic rhinitis, in particular if it is persistent, should be evaluated for asthma. Patients with asthma should be evaluated for rhinitis, and, a combined strategy should be ideally used to treat the upper and lower airway diseases in terms of efficacy and safety.

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