



DOES RHINITIS LEAD TO ASTHMA?

Does Rhinitis lead to Asthma? - A GA²LEN campaign

“Does Rhinitis lead to Asthma?” is a 2-year information campaign of the Global Allergy and Asthma European Network, GA²LEN. It was first presented at the GA²LEN Annual Conference on 20 April 2007, in London, UK.

The objective is to alert healthcare professionals and patients of the importance of the link between rhinitis and asthma for the management of one or both these allergic diseases. Evidence shows that rhinitis and asthma are intimately linked, suggesting the concept of “one airway, one disease”. The management of one disease is shown to be improved by taking the other into account.

The campaign is based on peer-reviewed scientific publication of the GA²LEN review committee¹ and follows the recommendations of the International guidelines on the management of Allergic Rhinitis and Its Impact on Asthma (ARIA). It will be rolled-out in European countries in close cooperation with EFA, the European Federation of Allergy and Airway Diseases Patients Association. Two leaflets are available in English: one is dedicated to the primary care physicians and the other to the patients. They are now being translated in various languages for national dissemination.

GA²LEN thanks Phadia and UCB Pharma for their support to the campaign through educational grants.

Never consider rhinitis as trivial! What patients should know

The prevalence of allergic rhinitis is increasing to up to 20% in school children and 30% in teenagers. It is important to adequately diagnose and treat allergic rhinitis as this can considerably improve patients' quality of life and decrease the risk of asthma developing / asthma exacerbations.

Health professionals: Rhinitis and asthma, united airways diseases

Rhinitis and asthma are often treated by different medical disciplines. However, patients' conditions are significantly improved by considering nose and bronchi diseases together in a “united airways perspective”. Whether or not the link between rhinitis and asthma is causal, it is important for primary care physicians to recognise rhinitis in asthma patients and similarly asthma in rhinitis patients. In any event, rhinitis should always be treated.

Contact & References

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¹ Does rhinitis lead to asthma? Paul Van Cauwenberge, Jean-Baptiste Watelet, Thibaut Van Zele, De-Yun Wang, Elina Toskala, Stephen Durham, and al. and members of GA²LEN workpackages 3.2. and 3.3. Rhinology, 45, 112-121, 2007

What is rhinitis – What is asthma? – Where is the link?

Allergic rhinitis

Allergic rhinitis - also known as hay fever when triggered by pollen – is allergy with nasal symptoms caused by outdoor allergens (such as plant pollens or mould) and by indoor allergens (such as animal dander, indoor mould or house dust mites) in people who are allergic to these substances. Rhinitis significantly impairs patients' quality of life and their social, educational and professional performance. Symptoms include fatigue, sleep disturbances, restriction of daily activities, exercise and hobbies.

Symptoms of allergic rhinitis can include: runny nose, itchy nose, **sneezing**, blocked nose, watery, inflamed, itchy eyes. Symptoms can be persistent.

The prevalence reaches 10-20% in young school children and ranges from 15-30% in teenagers in different countries. The condition usually starts at 3-5 years of age but it is most common later in childhood and adolescence, where severe forms are also more frequent.

A recent study shows that one in three allergic rhinitis patients may go on to develop asthma within 10 years.

Asthma, an allergic disease

Asthma is a chronic disease that affects the airways (bronchi) of the lungs. Asthma is caused by inflammation in the airways. The inflammation irritates the muscles around the airways, and causes them to tighten (constrict). This causes narrowing of the airways. It is then more difficult for air to get in and out of the lungs.

Symptoms can include **wheezing** and breathlessness. The inflammation also causes the lining of the airways to make extra mucus, which causes a cough creating further obstruction to airflow.

Prevalence: Around 30 million people in Europe have asthma, and as many as 6 million suffer symptoms which are characterised as severe. Around 1.5 million people in Europe live in fear of dying from an attack.

The link – Integrated airway hypothesis

Does rhinitis lead to asthma? Why is the link between rhinitis and asthma important?

Rhinitis affects the nose (upper airways) while asthma is an inflammation of the lungs (lower airways). The relationship between rhinitis and asthma has been the scope of recent epidemiological surveys, basic research studies, and clinical trials. Evidence shows that rhinitis and asthma are intimately linked, suggesting the concept of **“one airway, one disease”**.

Rhinitis is a risk factor for asthma. Improvement of allergic rhinitis symptoms can be associated with resolution of asthma symptoms and worsening of allergic rhinitis symptoms can be associated with exacerbation of asthma symptoms.

Appropriate management of allergic rhinitis can decrease the risk of asthma developing or exacerbations. In any event, rhinitis should always be treated.

NB: Rhinitis and asthma can also be non-allergic.



Links between upper and lower airways diseases GA²LEN joint research activities

Does rhinitis lead to asthma? What are the links between upper and lower airways diseases? GA²LEN investigates these questions in several work groups or “work packages”.

Epidemiology

The **Birth Cohorts** work group has compared the methodologies of 20 European birth cohorts focusing on allergic diseases and collected their data in a common database. The objective is to reach a critical mass of information and allow European-wide meta-analysis.

Gender differences in the development, diagnosis and treatment of asthma and allergy are studied by the Gender work group, with special focus on sexual hormones.

The effects of **occupational exposure** in non-industrial indoor environments are also addressed, specifically the effects of cleaning products on asthma and other allergic diseases.

Physiopathology Links

Several view points are taken to study physiopathological links. From early life events to the translation of allergic sensitisation into allergic diseases and finally the physiological developments as allergic diseases become persistent or aggravated.

Workpackages explore the influence of **genetics**; the **IgE sensitisation**; the role of **regulatory T-cells**; the mechanisms of **virus-induced exacerbations** and **aspirin-induced reactions**; the **remodelling of the tissues** of upper and lower airways while rhinitis and asthma develop; the relation with **chronic sinusitis**...

Pharmacological links

A specific work group deals with **patient care**. It aims to review the needs for clinical research in Europe, the current routinely collected information from the patients in each country and the quality measures in health care in Europe. When treating patients suffering from different allergy expressions such as rhinitis and asthma, it is important for health professionals to ask for and collect data on medical history, allergic symptoms, when they occur, their frequency, but also how they affect patients' quality of life. The group also considers tests proposed, how they are performed and treatments.

