

# THE HEALTH AND ECONOMIC IMPACT OF ALLERGEN THERAPY IN PATIENTS WITH ALLERGIC RHINOCONJUNCTIVITIS: REAL-WORD EVIDENCE FROM THE CZECH REPUBLIC

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## INTRODUCTION

The prevalence of allergic rhinoconjunctivitis in the population is high (10-20% in adults and 10-40% in children)<sup>[1]</sup>. This leads to a significant socioeconomic burden due to lowering of quality of life, increase in direct healthcare costs, decrease of work productivity and school or work absenteeism<sup>[2]</sup>.

The objective of this study was to compare the changes in clinical outcomes and healthcare costs during the usage of subcutaneous allergen immunotherapy (AIT) in patients with allergic rhinoconjunctivitis (AR) before and after initiation of AIT in the Czech Republic.

## METHOD

Data were based on a prospective, non-interventional, single arm, multi-centre cohort clinical study with 2-year follow-up. Data were obtained from routinely collected medical records, and only adults patients with two completed pollen seasons with AIT were included (n=176).

Each patient was assessed before initiation of AIT and then during two consecutive years treated with subcutaneous AIT. Patients received 6 injections of AIT containing either Grass MATA or Tree MATA (Modified Allergen Tyrosine Adsorbed).

Information about daily occurrence/severity of symptoms and symptomatic treatment used in the respective pollen season was obtained from patient questionnaires. In addition, demographic data, healthcare resource use and annual costs connected to allergic rhinoconjunctivitis were collected.

## RESULTS

Figure 1. Frequency and severity of symptoms during pollen seasons

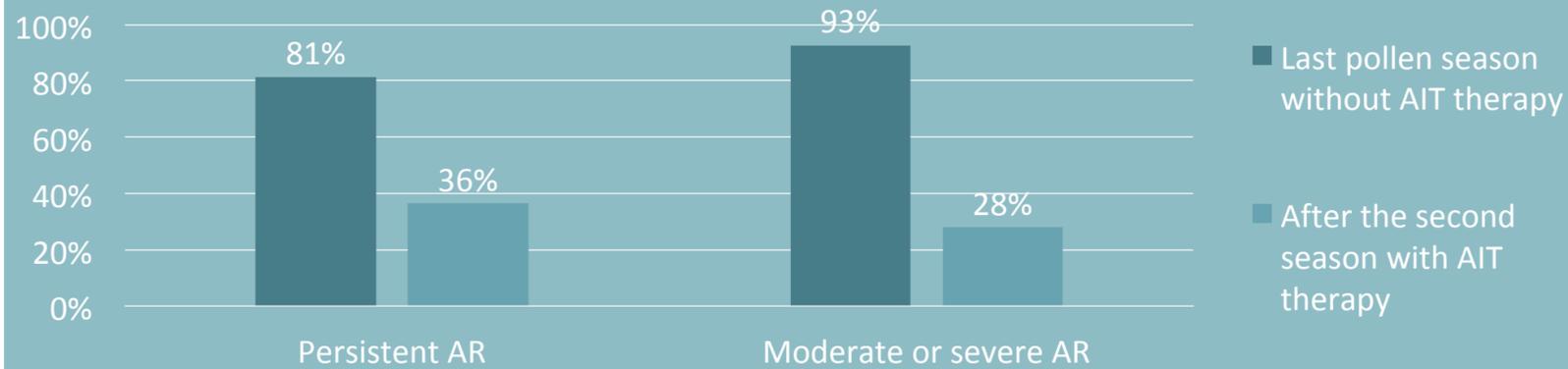
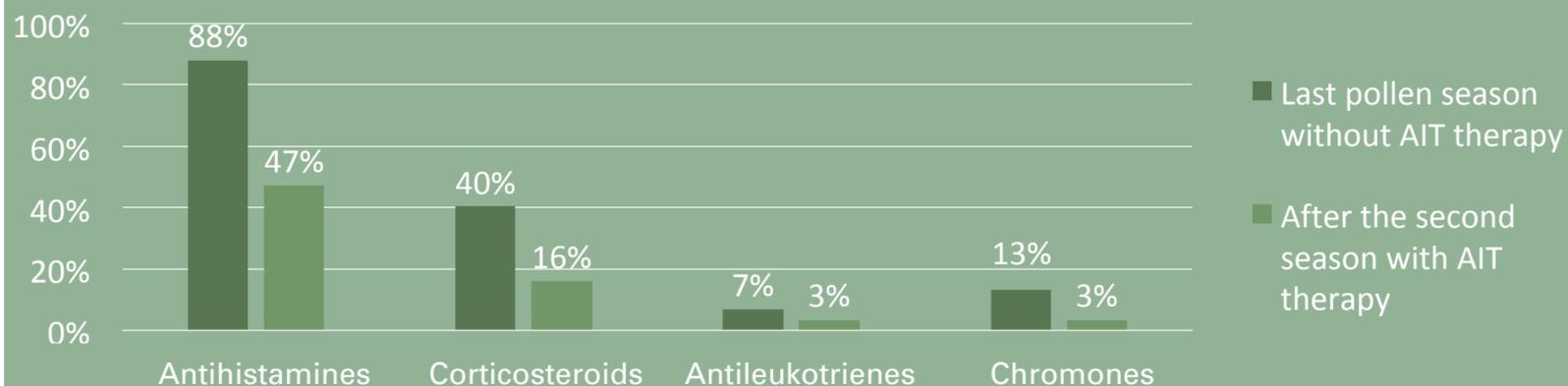


Figure 2. Treatment frequency during pollen seasons – need for daily treatment



Grass MATA was prescribed to 22% of patients and the remaining 78% received Tree MATA therapy. The mean age was 34.8 years and the mean time between the diagnosis and the first application of AIT was 4.2 years. 87% of patients did not use any allergen immunotherapy more than 5 years ago.

As shown in figure 1, a statistically significant decrease in frequency and severity of clinical symptoms was reported by clinicians and patients. Figure 2 illustrates that the number of patients who required medication each day during the pollen season decreased for each class of medication (Antihistamines, Corticosteroids, Antileukotrienes and Chromones).

The main aim was to compare healthcare costs in patients before and after AIT. Healthcare costs consist of two components: medical procedure/visits costs and pharmacotherapy costs. Compared to the last year without AIT, the total disease-related annual healthcare costs could be decreased 46% after the second season with AIT treatment.

Total costs	Reduction in annual healthcare cost
Last year without AIT therapy	Reference
After the second season with AIT therapy	46%

## CONCLUSIONS

Statistically significant differences between the results in the last pollen season without AIT and after the second season with Grass MATA or Tree MATA therapy illustrate the positive clinical effect of the treatment. This non-interventional study supports the statement that AIT can be a cost-effective treatment for AR based on medical records from real clinical practice in the Czech Republic. However, it should be taken into account that any environmental changes between different seasons might affect the results.

## REFERENCES

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