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# Secondary prevention of allergic disease

Secondary prevention strategies attempt to diagnose and treat an existing disease at an early stage before the condition results in significant morbidity. In the case of allergy, secondary prevention is employed in individuals who show evidence of sensitisation but not yet any evidence of symptoms or signs of allergic disease.

Results from earlier trials suggest that allergen specific immunotherapy (SIT) is capable of preventing the development of allergic respiratory disease, mostly in relation to reducing the risk of developing asthma in children with allergic rhinoconjunctivitis. However, these earlier trials were all open trials, with the control group receiving symptomatic medication only. Furthermore, only one of the trials, the Preventive Allergy Treatment (PAT) trial, included a post-treatment follow-up period to assess any long-term effects[1]. Hence, there is a need for double-blind, placebo-controlled, randomised trials in this area, and this has been called for by both the World Allergy Organization (WAO) and the paediatric committee (PDCO) of the European Medicines Agency (EMA).

The allergy immunotherapy tablet (AIT) administration form of SIT has been demonstrated to be an effective treatment for grass pollen allergy in both adults and children, and disease-modifying, long-term effect has been documented for the SQ-standardised grass AIT[2]. Thus, the SQ-standardised grass AIT is a candidate for preventing the progression of grass pollen-induced allergic rhinoconjunctivitis into asthma.

The Grazax Asthma Prevention (GAP) trial has been designed as a randomised, double-blind, placebo-controlled, multi-national trial conducted in 11 European countries. The main eligibility criteria were age 5-12 years at randomisation with grass pollen-induced rhinoconjunctivitis confirmed by skin prick test (SPT) and specific IgE, and no asthma or overlapping symptomatic allergies. After the 2010 grass pollen season, the children were randomised 1:1 to once daily sublingual treatment with grass AIT or placebo. The treatment period is 3 years, followed by a blinded observational period of 2 years. The primary endpoint is time to onset of asthma.

Of the 812 randomised children, 37% were girls and 96% were Caucasian. The mean age at randomisation was 9.4 years (median 9.5; range 4.9-13.0). The mean duration of grass pollen-induced rhinoconjunctivitis was 3 years (median 3; range >1-10). Based on SPT results, 35% were monosensitised to *Phleum pratense*, 22% had 1 additional sensitisation, 18% had 2 additional sensitisations, 11% had 3 additional sensitisations and 14% had ≥4 additional sensitisations. The most common additional sensitisations were birch (34%), cat (21%), dog (21%), house dust mite (16%) and mugwort (14%). At screening, 71% had a first degree relative with a

history of allergic rhinoconjunctivitis and 35% had a first degree relative with a history of asthma[3].

This randomised, double-blind, placebo-controlled trial is the first of its kind and will be ongoing for another 3 years, exploring prevention of asthma by SQ-standardised grass AIT treatment.

**References**


1. Jacobsen L *et al. Allergy* 2007;62:943-8
2. Durham SR *et al. J Allergy Clin Immunol* 2012;129:717-25
3. Grazax Asthma Prevention Trial, EudraCT Number: 2009-011235-12