

Ultra-Short-Course Seasonal Allergy Vaccine (Pollinex® Quattro)

A Viewpoint by Marek Jutel

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The incidence of allergic rhinitis is increasing and the associated socioeconomic burden places this pathology among the most important chronic diseases. The management of allergic rhinitis includes allergen avoidance, pharmacotherapy, immunotherapy and education. Allergen-specific immunotherapy (SIT) is the practice of administering gradually increasing quantities of an allergen vaccine to an allergic subject in order to ameliorate symptoms associated with subsequent exposure to the causative allergen. SIT is the only cause-specific treatment of allergic rhinitis aimed at the restoration of the immunological tolerance mechanisms, which exist in healthy nonallergic individuals. Controlled clinical studies of SIT in rhinoconjunctivitis have shown that both symptoms and the need for medication can be reduced effectively.^[1] Benefits can be maintained for at least 6 years after discontinuation of treatment,^[2,3] which can also have preventative effects on the development of new sensitisations and asthma.

The pharmaceutical industry provides a number of high quality vaccines, which are standardised according to their allergen content and allergenic potency. Pollinex® Quattro¹ contains a mixture of

allergoids (glutaraldehyde-modified allergens, which do not bind IgE) and the adjuvant 3-deacylated monophosphoryl lipid A (MPL®) derived from bacterial cell walls. Although its mechanism of action is still unclear, MPL® helps to shift the immune response to allergens from a T-helper type 2 (Th2) to a Th1 cytokine profile, without having the toxic effects of lipopolysaccharide.^[4] Clinical studies have shown that the use of MPL® with allergen-SIT significantly reduces the number of vaccinations needed to induce a Th1 response against allergens. In fact, current evidence summarised in the accompanying profile indicates that short-term preseasonal treatment with only four vaccine injections is effective in reducing symptom-medication scores in grass- and tree-pollen allergy. However, the number of patients included in these studies is limited. More controlled studies are necessary to fully elucidate the advantages of this vaccine as compared to other available preparations. ▲

References

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1 The use of trade names is for product identification purposes only and does not imply endorsement.