

# Subcutaneous immunotherapy: a perspective from Peking Union Medical College Hospital

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## Abstract

**Background** Allergen-specific immunotherapy (AIT) is the only disease-modifying treatment for IgE mediated disease. In china, AIT has been applied over 60 years and subcutaneous immunotherapy (SCIT) is the major route. This study analyzed the relatively comprehensive status of SCIT in our country. **Methods** Patients who initiated SCIT between January 1, 2015, and December 31, 2016 at Peking Union Medical College Hospital were collected and their medical records from January 1, 2015, to December 31, 2019 were obtained. The formulation and adherence of SCIT in different age groups and regions were analyzed. **Results** A total of 4731 patients receiving SCIT were analyzed, including 459 children (5-12 years), 624 adolescent (13-18 years) and 3648 adults. On a per-species allergen extract basis, multi-allergen SCIT were prescribed in 83% of patients. Mugwort, house dust mite and firebush were most frequently administered. On per-group allergen extract basis, 49% of SCIT were mixing formulations and weed pollen, tree pollen and house dust mite were most frequently used. The most common component of SCIT was mold in children (53%), whereas weed pollen in adolescents (59%) and adults (68%). Overall, 35% of patients completed at least 3-year SCIT. Children had the highest adherence of SCIT, followed by adolescents and adults (49%, 47% and 31%, respectively). **Conclusions** The majority of patients were prescribed SCIT of mixing formulation. Weed pollen was the most frequently used allergen group in SCIT, especially in Northern China. Real-life adherence in SCIT was still low which desiderate improvement of current procedure of SCIT.

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