



Article outline

Key words

Abbreviations used

References

Figures and tables

Table I

Table II

Table III

Table IV

Table V

The Journal of Allergy and Clinical Immunology: In Practice

Volume 2, Issue 2, March–April 2014, Pages 144–149



Review and Feature Article

Subcutaneous Immunotherapy Versus Sublingual Immunotherapy: Which Is More Effective?

Harold S. Nelson, MD

[Show more](#)

Choose an option to locate/access this article:

[Get Full Text Elsewhere](#)

doi:10.1016/j.jaip.2013.11.018

[Get rights and content](#)

Subcutaneous immunotherapy (SCIT) and sublingual immunotherapy (SLIT) are both effective treatments for allergic rhinitis and allergic asthma, both show clinical evidence of disease modification by decreasing new sensitizations in individuals who were monosensitized, by reducing the development of asthma in patients with allergic rhinitis, and by inducing clinical improvement that persists for years after discontinuation of a successful course of treatment. Initiation of SLIT is accompanied by a high incidence of local symptoms, but these are generally mild and do not usually persist beyond the first few weeks. Systemic reactions do occasionally occur with SLIT but much less frequently than with SCIT, and, to date, no fatal or near fatal reactions have been reported. Effective doses have been defined for many allergens for SCIT and are now being defined for SLIT. There remains the unanswered question of the effectiveness of SLIT with multiple allergen extracts. The relative clinical efficacy of SCIT and SLIT remains to be defined. When each is compared with placebo, results of meta-analyses suggest greater efficacy of SCIT. In the limited number of randomized, head-to-head studies, SCIT has more often provided greater clinical and immunologic responses. However, head-to-head studies with well-defined effective doses by the 2 routes are urgently needed.

Key words

Immunotherapy; Subcutaneous; Sublingual; Meta-analysis; Allergic rhinitis; Allergic asthma; Allergen extracts

Abbreviations used

Adol, Adolescent; AR, Allergic rhinitis; ARC, Allergic rhinoconjunctivitis; AS, Allergic asthma; BAC, Bronchial allergen challenge; biw, Twice weekly; eos, Eosinophil; Freq, Frequency; HDM, House dust mite; IgG₄, Allergen-specific Immunoglobulin G, subclass 4; NAC, Nasal allergen challenge; NS, Not significant; PAR, Perennial allergic rhinitis; PL, Placebo; qd, Every day; qod, Every other day; RH, Rhinitis; Rx, Prescription; SCIT, Subcutaneous immunotherapy; SLIT, Sublingual immunotherapy; SMD, Standardized mean difference; SSD, Standardized score difference; SPT, Skin prick test; TCS, Total combined score; tiw, Three times weekly

No funding was received for this work.

Conflicts of interest: H. S. Nelson has received consultancy fees from Merck, Pearl Therapeutics, and Circassia; and has received research support from Circassia, the Immune Tolerance Network, and National Institutes of Health.

Corresponding author: Harold S. Nelson, MD, Department of Medicine, National Jewish Health and University of Colorado Denver School of Medicine, National Jewish Health, 1400 Jackson St, Denver, CO 80206.

Copyright © 2014 American Academy of Allergy, Asthma & Immunology. Published by Elsevier Inc. All rights reserved.

reserved.

[About ScienceDirect](#)
[Terms and conditions](#)

[Contact and support](#)
[Privacy policy](#)

Copyright © 2016 Elsevier B.V. or its licensors or contributors. ScienceDirect® is a registered trademark of Elsevier B.V.

Cookies are used by this site. To decline or learn more, visit our [Cookies](#) page.

[Switch to Mobile Site](#)

Recommended articles

[Effectiveness of Subcutaneous Versus Sublingual I...](#)

2013, The Journal of Allergy and Clinical Immunology: In P... [more](#)

[Monoallergen Sublingual Immunotherapy Versus M...](#)

2014, The Journal of Allergy and Clinical Immunology: In P... [more](#)

[Allergen Immunotherapy: Clinical Outcomes Assess...](#)

2014, The Journal of Allergy and Clinical Immunology: In P... [more](#)

[View more articles »](#)

Citing articles (20)

Related book content

Metrics



[Help](#)

■ 2 Tweepers

Saved to reference managers

■ 26 Mendeley readers

[View more details »](#)

