

REVIEW

Open Access

# Sublingual immunotherapy: World Allergy Organization position paper 2013 update

Giorgio Walter Canonica<sup>1\*†</sup>, Linda Cox<sup>2†</sup>, Ruby Pawankar<sup>3†</sup>, Carlos E Baena-Cagnani<sup>4</sup>, Michael Blaiss<sup>5</sup>, Sergio Bonini<sup>6</sup>, Jean Bousquet<sup>7</sup>, Moises Calderón<sup>8</sup>, Enrico Compalati<sup>9</sup>, Stephen R Durham<sup>10</sup>, Roy Gerth van Wijk<sup>11</sup>, Désirée Larenas-Linnemann<sup>12</sup>, Harold Nelson<sup>13</sup>, Giovanni Passalacqua<sup>14</sup>, Oliver Pfaar<sup>15</sup>, Nelson Rosário<sup>16</sup>, Dermot Ryan<sup>17</sup>, Lanny Rosenwasser<sup>18</sup>, Peter Schmid-Grendelmeier<sup>19</sup>, Gianenrico Senna<sup>20</sup>, Erkkka Valovirta<sup>22</sup>, Hugo Van Bever<sup>21</sup>, Pakit Vichyanond<sup>23</sup>, Ulrich Wahn<sup>24</sup> and Osman Yusuf<sup>25</sup>

## Abstract

We have prepared this document, "Sublingual Immunotherapy: World Allergy Organization Position Paper 2013 Update", according to the evidence-based criteria, revising and updating chapters of the originally published paper, "Sublingual Immunotherapy: World Allergy Organization Position Paper 2009", available at [www.waojournal.org](http://www.waojournal.org). Namely, these comprise: "Mechanisms of sublingual immunotherapy"; "Clinical efficacy of sublingual immunotherapy" – reporting all the data of all controlled trials published after 2009; "Safety of sublingual immunotherapy" – with the recently published Grading System for adverse reactions; "Impact of sublingual immunotherapy on the natural history of respiratory allergy" – with the relevant evidences published since 2009; "Efficacy of SLIT in children" – with detailed analysis of all the studies; "Definition of SLIT patient selection" – reporting the criteria for eligibility to sublingual immunotherapy; "The future of immunotherapy in the community care setting"; "Methodology of clinical trials according to the current scientific and regulatory standards"; and "Guideline development: from evidence-based medicine to patients' views" – including the evolution of the methods to make clinical recommendations.

Additionally, we have added new chapters to cover a few emerging crucial topics: "Practical aspects of schedules and dosages and counseling for adherence" – which is crucial in clinical practice for all treatments; "Perspectives and new approaches" – including recombinant allergens, adjuvants, modified allergens, and the concept of validity of the single products. Furthermore, "Raising public awareness about sublingual immunotherapy", as a need for our patients, and strategies to increase awareness of allergen immunotherapy (AIT) among patients, the medical community, all healthcare stakeholders, and public opinion, are also reported in detail.

**Keywords:** Sublingual immunotherapy, Allergen-specific immunotherapy, Mechanisms of SLIT, Safety of SLIT, Efficacy of SLIT, Clinical trials methodology in SLIT

## Foreword

**An introductory address by Professor Guido Rasi,  
Executive Director, European Medicines Agency (EMA)**

Immunotherapy and Biologics represent some of the most important hot topics in the field of medicine. In fact, not only is there a tremendous increase in the requests for

scientific advice and marketing authorization for biologics and immunological treatments to the European Medicines Agency (EMA), but these therapies call for new methods of research, strategies for development, evaluation, use and pharmacovigilance.

The allergen products used for both the diagnosis and treatment of allergic diseases require particular attention among the immunological and biological therapeutic areas, due to the increase in the prevalence and social relevance of allergies as well as the regulatory actions being requested by the Directive 2001/83/EC and the following amending EC Directives.

\* Correspondence: [canonica@unige.it](mailto:canonica@unige.it)

†Equal contributors

<sup>1</sup>Respiratory and Allergy Clinic, DIMI—Department of Internal Medicine, University of Genoa, IRCCS Aou San Martino, Largo Rosanna Benzi 10, Genoa 1-16132, Italy

Full list of author information is available at the end of the article