

The EfficAPSI study

Real world effectiveness of Sublingual Allergen Immunotherapy on the onset and worsening of allergic asthma

Supported by an institutional grant

STALLERGENES  GREER

Life beyond allergy

Overview

Study type

Retrospective pharmaco-epidemiological longitudinal study 'exposed/unexposed'

Study objectives

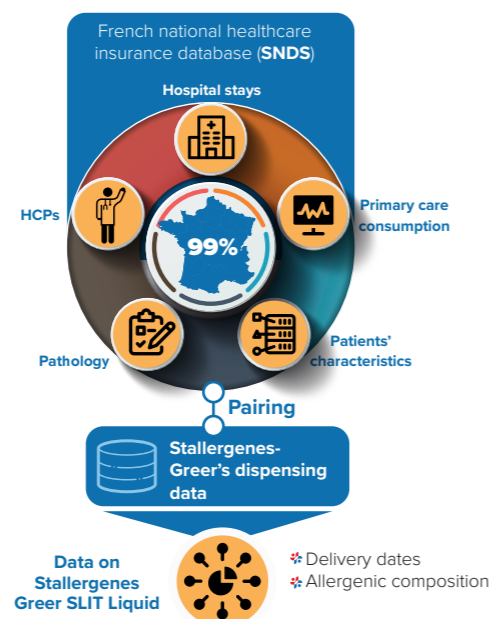
Assess the real-life impact of sublingual liquid allergen immunotherapy on:

- PRIMARY** The onset and worsening of asthma in patients with allergic rhinitis (AR)
- SECONDARY** Healthcare resources consumption in patients with AR

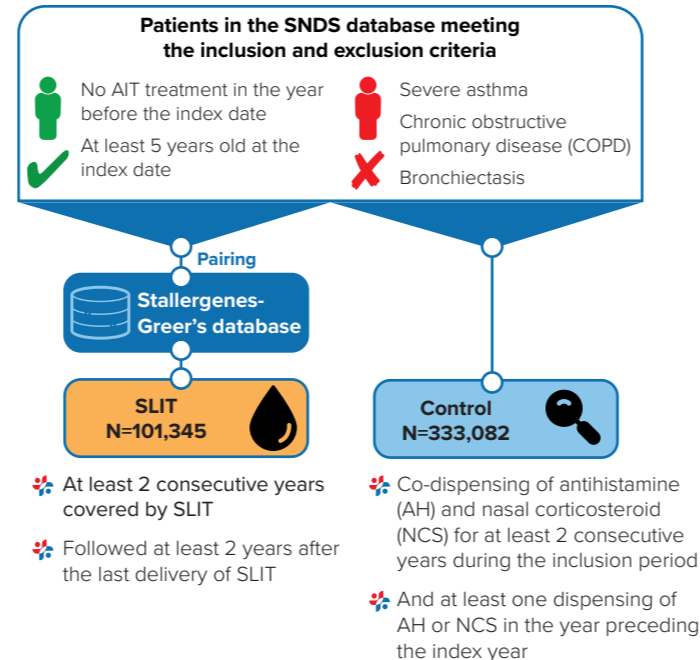
Scientific Committee

- P. Devillier
- JF. Bergman
- P. Demoly
- B. Delaisi
- M. Molimard

Methodology



Study Population



Inclusion period:
2010–2013



Study period:
2010–2018

Index date:

SLIT:
First dispensing of SLIT

Controls:
First co-dispensing AH+NCS

Modelling and Analysis

Incidence of occurrence of an event of interest:

The **hazard ratio (HR)** and **confidence interval (CI)** were estimated using a Cox proportional hazards model with inverse probability weighting (propensity score matching)

The results were stratified according to: **the history of asthma (yes/no), age, allergenic composition**

Primary analysis



SLIT versus controls
(all patients without stratification)

Subgroup analysis



SLIT patients WITH asthma



SLIT patients WITHOUT asthma

Results

Primary analysis

SLIT versus controls

Association between SLIT* liquid and onset or worsening of asthma

Main definition (more sensitive):

New LTD (long term disease) for severe asthma OR hospitalization for asthma OR at least one dispensing of asthma treatment

Group	Number of patients	Persons years	Number of events	Raw incidence rate (%)
Controls	333,082	1,262,759	219,044	17
SLIT	101,345	403,427	56,365	14

Adjusted HR	95% CI
Ref	N/A
0.78	[0.77-0.78]

-22%
reduction of asthma events for SLIT versus controls

Secondary definition (more specific, focused on severe forms of asthma):

New LTD for serious asthma OR hospitalization for asthma

Group	Number of patients	Persons years	Number of events	Raw incidence rate (%)
Controls	333,082	2,537,074	11,775	0.46
SLIT	101,345	690,740	1,838	0.27

Adjusted HR	95% CI
Ref	N/A
0.72	[0.69-0.76]

-28%
reduction of asthma events for SLIT versus controls

Subgroup analysis

SLIT versus controls

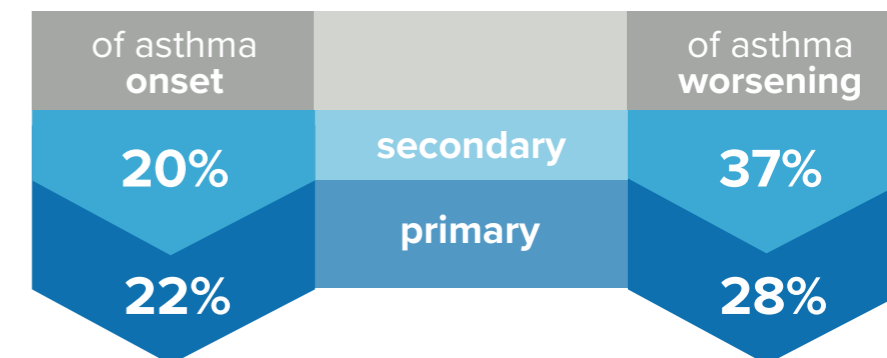
Patients WITH pre-existing asthma

Primary definition	Composition	HR (CI)
Composition	Ragweed	33% ◆ 0.67 (0.60-0.74)
	Cat	41% ◆ 0.59 (0.54-0.64)
	Birch	37% ◆ 0.63 (0.59-0.66)
	Grass	38% ◆ 0.62 (0.60-0.64)
	Dust mites	29% ◆ 0.71 (0.70-0.73)
Age (Years)	>50	◆ 0.73 (0.71-0.75)
	40-50	◆ 0.68 (0.66-0.7)
	25-40	◆ 0.78 (0.76-0.8)
	5-25	◆ 0.72 (0.70-0.74)
With pre-existing asthma	28% ◆	0.72 (0.71-0.73)
Secondary definition		
Composition	Grass	47% ◆ 0.53 (0.45-0.61)
	Dust mites	34% ◆ 0.66 (0.60-0.71)
Age (Years)	>50	◆ 0.65 (0.45-0.61)
	40-50	◆ 0.63 (0.55-0.72)
	25-40	◆ 0.55 (0.49-0.62)
	5-25	◆ 0.72 (0.64-0.82)
With pre-existing asthma	37% ◆	0.63 (0.59-0.66)

Patients WITHOUT pre-existing asthma

Primary definition	Composition	HR (CI)
Composition	Ragweed	48% ◆ 0.52 (0.47-0.59)
	Cat	13% ◆ 0.87 (0.80-0.94)
	Birch	19% ◆ 0.81 (0.76-0.86)
	Grass	35% ◆ 0.65 (0.64-0.67)
	Dust mites	25% ◆ 0.75 (0.74-0.77)
Age (Years)	>50	◆ 0.76 (0.74-0.77)
	40-50	◆ 0.75 (0.72-0.77)
	25-40	◆ 0.86 (0.84-0.88)
	5-25	◆ 0.76 (0.74-0.79)
Without pre-existing asthma	22% ◆	0.78 (0.77-0.79)
Secondary definition		
Composition	Dust mites	30% ◆ 0.7 (0.61-0.80)
Age (Years)	40-50	◆ 0.42 (0.32-0.54)
	25-40	◆ 0.82 (0.69-0.97)
Without pre-existing asthma	20% ◆	0.80 (0.73-0.87)

SLIT liquid is associated with a significant reduction of the risk...



In this nationwide, real-world study on a large number of patients, treatment with SLIT liquid* is effective in reducing the risk of asthma onset and worsening and has demonstrated its public health interest in real practice.

AIT is generally prescribed following or in association with symptomatic treatments