

**TABLE IX.D.4-1.** Evidence for the use of SLIT in the treatment of allergic rhinitis—systematic reviews and meta-analyses from the last decade

Study	Year	LOE	Study design	Study groups	Clinical endpoint	Conclusion <sup>a</sup>
Di Bona et al. <sup>815</sup>	2015	1a	Meta-analysis of RCTs	SLIT grass pollen tablets vs placebo for SAR	Symptom and medication score	Small improvement in symptom and medication scores vs placebo: (SMD $-0.28$ ; 95% CI, $-0.37$ to $-0.19$ ; $p < 0.001$ ) and (SMD $-0.24$ ; 95% CI, $-0.31$ to $-0.17$ ; $p < 0.001$ ). Adverse events: 7/2259 SLIT patients were given epinephrine.
Leatherman et al. <sup>1692</sup>	2015	1a	Systematic review of RCTs for SLIT doses	SLIT for AR vs placebo	Doses of the effective vs doses of non-effective SLIT	Wide dose ranges between studies. For certain antigens, effective and non-effective dose ranges often overlap. For other allergens: insufficient data.
Devillier et al. <sup>1332</sup>	2014	1a	Meta-analysis of RCTs	Pollen SLIT vs pharmacotherapy vs placebo for SAR	Relative clinical impact <sup>b</sup>	Clinical impact: 5-grass pollen tablet > INCS > Timothy grass pollen tablet > montelukast > antihistamines
Makatsori et al. <sup>1693</sup>	2014	1a	Systematic review of RCTs	SLIT vs placebo	Drop-out rates in SLIT and placebo groups	No tendency for a skewed dropout ratio between SLIT and placebo groups. Confirms trial results are unbiased and SLIT appears to be safe.
Lin et al. <sup>1694</sup>	2013	1a	Systematic review of RCTs	Aqueous SLIT vs placebo for SAR (and asthma)	Symptom and medication scores	Moderate evidence aqueous SLIT reduces symptoms and medication use in AR/ARC.
Meadows et al. <sup>1617</sup>	2013	1a	Meta-analysis of RDBPCTs, cost analysis	SCIT and SLIT vs placebo for SAR	Several efficacy variables, costs	Symptom reduction with SCIT and SLIT is greater than placebo.
Di Bona et al. <sup>1696</sup>	2011	1a	Meta-analysis of RDBPCTs	Grass pollen SLIT vs placebo for SAR (and asthma)	Symptom and medication scores	SLIT vs placebo: Reduction in symptoms (SMD $-0.32$ ) and medication use (SMD $-0.33$ ). No epinephrine use.
Radulovic et al. <sup>1695</sup>	2011	1a	Meta-analysis of RDBPCTs	SLIT vs placebo for AR	Symptom and medication scores	SLIT vs placebo: Reduction in symptoms (SMD $-0.49$ ) and medication use (SMD $-0.32$ ). No epinephrine use.
Durham et al. <sup>1673</sup>	2016	1b	Pooled analysis from RCTs	SAR: grass or ragweed SLIT tablet vs pharmacotherapy. PAR: HDM SLIT tablet vs pharmacotherapy.	Total Nasal Symptom Score	SAR: SLIT numerically greater than montelukast and antihistamine; almost equal to mometasone furoate INCS. PAR: SLIT effect numerically greater than all pharmacotherapy.
Maloney et al. <sup>1675</sup>	2015	1b	Pooled analysis from RCTs	Grass SLIT tablet vs placebo. Grass SLIT in AR patients with (24%) and without (76%) mild asthma.	Treatment related AE frequency	Severe asthma-related adverse events due to treatment in 6/120 SLIT and 2/60 placebo. No difference between the 2 groups. Both adults and children were included.
Creticos et al. <sup>1676</sup>	2016	2a	Systematic review	Patients treated with SLIT, started in-season, vs out-of-season vs placebo	Serious treatment-related AE, systemic AE discontinuations	11 SLIT trials (n = 2668 subjects total). No epinephrine administration. 0% to 4% systemic AE with in-season vs 0% out-season initiation. 2 serious treatment-related AE with co-season SLIT initiation.
Oykhman et al. <sup>1677</sup>	2015	3a	Systematic review of cohort studies	Pregnant women with vs without SLIT or SCIT and their offspring. 422 pregnancies continuing AIT and 31 starting AIT.	Pregnancy outcome, allergy in offspring	No difference in prematurity, proteinuria, hypertension, congenital malformations, perinatal death. No fetal complications of 10/453 systemic reactions to SCIT. No altered risk of developing atopic disease in offspring.