Managing Seasonal Allergies

Nonpharmacologic management of seasonal allergies include **nasal irrigation** and **allergen avoidance** (e.g., keeping windows closed, using window screen filters and air conditioning, limiting outdoor time during peak allergen season, showering after outdoor exposure).[3] Choose a medication based on severity of symptoms, patient age, other medical conditions, and preferences.[2] Immunotherapy (subcutaneous or sublingual) can be considered if other management is not adequate or if the patient has seasonal allergies in combination with asthma.[1,2] Alternative therapies (e.g., supplements, homeopathy, acupuncture, honey) have been used and promoted for seasonal allergies; however, there are insufficient data to recommend these therapies.[3,4]

Drug/Class	Consider for…	Avoid or use particular caution…

Nasal corticosteroids
 	
See our chart, Nasal Sprays for Allergic Rhinitis.
	• first-line for moderate to severe, persistent symptoms.[3,5]
	• nasal congestion.[3,5]
	• itchy, irritated, or watery eyes.[3]
		• in children:[9,14]
		  • under six years (budesonide).
		  • under four years (fluticasone propionate).
		  • under two years (triamcinolone, mometasone [three years in Canada], fluticasone furoate).

Oral antihistamines See our comparison of first- and second-generation antihistamines later in this document.	• first-line for mild or intermittent symptoms (second generation).[3,5] • itching, sneezing, rhinorrhea (second generation).[5]	• under two years (most second generation).[9,22] • under 12 years (fexofenadine [Canada only]).[12] • in older adults, risk of excessive sedation (first generation, cetirizine).[9] • due to risk for decreased cognition or motor skills (first generation).[9] • with glaucoma (first generation).[9] • if severe liver impairment.[9] • if moderate to severe kidney impairment.[9,13] • with moderate or strong CYP3A4 inhibitors, grapefruit juice.[9,13] • with orange or apple juice; other OATP inhibitors (fexofenadine).[9] • if prolonged QT interval (Canada: bilastine, rupatadine).[7,13]

Nasal antihistamines
 	
See our chart, Nasal Sprays for Allergic Rhinitis.
	• add-on therapy with nasal steroids, if needed (especially for nasal congestion, rhinorrhea).[1,3,8]	• in children:
		  • under two years (azelastine 0.1% by prescription only [US]).[9]
		  • under six years (azelastine 0.15% [US], olopatadine [US]).[9]
		  • under five years (azelastine 0.1% [US]).[9]
		• (note: not available as single-ingredient nasal sprays in Canada).

Ophthalmic antihistamines	• add-on therapy for eye symptoms with nasal steroids, if needed.[1]	• under three years (ketotifen, olopatadine [Canada]).[9,15,16] • under two years (olopatadine [US]).[9]

Drug/Class	Consider for…	Avoid or use particular caution…
Decongestants (intranasal, oral)	• inadequate response from a nasal steroid for nasal congestion.[2] • use intranasal in combination with an oral antihistamine.[3] • intermittent nasal congestion.[2]	• if hypertension, arrhythmia, coronary heart disease, hyperthyroidism, glaucoma, diabetes, and benign prostatic hypertrophy (oral).[2] • prolonged use of intranasal (more than three to five days).[2,3] • with monoamine oxidase inhibitors.[6] • as monotherapy (intranasal).[6] • oral phenylephrine due to lack of efficacy.[23]
Cromolyn (intranasal [US]) See our chart, Nasal Sprays for Allergic Rhinitis.	• prevention. • inadequate response with other treatments. • children when parents have safety concerns with other therapy.[6]	• under two years.[9]
Leukotriene receptor antagonists (montelukast)	• use as a last resort.[6,10] • use if coexisting asthma.[1]	• for seasonal allergic rhinitis: under two years (US), under 15 years (Canada).[17,18] • if anxiety, depression, and psychiatric disorders.[6]
Oral corticosteroids	• use as a last resort for severe symptoms.[6,20,21]	• prolonged use (more than a few days).[6,20,21]

Comparison of First- and Second-Generation Antihistamines. Second-generation antihistamines are often recommended over first-generation antihistamines as they are as effective for seasonal allergies and have less sedation or other adverse effects.[11,19]

First-Generation Antihistamines[11,19]	Second-Generation Antihistamines[11,19]
• Some examples of first-generation antihistamines include: brompheniramine, chlorpheniramine, diphenhydramine, doxylamine, hydroxyzine • **Non-selective** (target histamine-1 receptors, but also cholinergic, alpha-adrenergic, and serotonergic receptors). • Can have **substantial adverse effects**, especially in older patients (not recommended in patients >65 years old). • Most common adverse effect is sedation. May decrease cognitive and motor skills, use with caution. • Some (especially children) may have stimulating effects (e.g., insomnia, anxiety, hallucinations). • Can cause anticholinergic effects (e.g., dry mouth, dry eyes, constipation, tachycardia).	• Some examples of second-generation antihistamines include: o bilastine (Canada only) o cetirizine o desloratadine o fexofenadine o loratadine o rupatadine (Canada only) • **Selective** (more specific to peripheral histamine-1 receptors; don't cross the blood-brain barrier). • Generally well tolerated. • Generally not sedating (note that cetirizine may be slightly more sedating than other second generation antihistamines). • Can be more expensive than first-generation antihistamines.

Users of this resource are cautioned to use their own professional judgment and consult any other necessary or appropriate sources prior to making clinical judgments based on the content of this document. Our editors have researched the information with input from experts, government agencies, and national organizations. Information and internet links in this article were current as of the date of publication.

Levels of Evidence

In accordance with our goal of providing Evidence-Based information, we are citing the **LEVEL OF EVIDENCE** for the clinical recommendations we publish.

Level	Definition	Study Quality
A	Good-quality patient-oriented evidence.*	1. High-quality randomized controlled trial (RCT) 2. Systematic review (SR)/Meta-analysis of RCTs with consistent findings 3. All-or-none study
B	Inconsistent or limited-quality patient-oriented evidence.*	1. Lower-quality RCT 2. SR/Meta-analysis with low-quality clinical trials or of studies with inconsistent findings 3. Cohort study 4. Case control study
C	Consensus; usual practice; expert opinion; disease-oriented evidence (e.g., physiologic or surrogate endpoints); case series for studies of diagnosis, treatment, prevention, or screening.	

***Outcomes that matter to patients** (e.g., morbidity, mortality, symptom improvement, quality of life).

[Adapted from Ebell MH, Siwek J, Weiss BD, et al. Strength of Recommendation Taxonomy (SORT): a patient-centered approach to grading evidence in the medical literature. Am Fam Physician 2004;69:548-56. https://www.aafp.org/pubs/afp/issues/2004/0201/p548.html.]

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Nasal Sprays for Allergic Rhinitis

Updated April 2025

Product (Class)	Adult Dose[a] (mcg/spray provided for steroids)	Pediatric Dose[a] (mcg/spray provided for steroids)	Cost[b]
Azelastine 0.1% (US only)[c,f] (previous brand Astelin) AH Rx G	1 to 2 sprays in each nostril BID	**5 to 11 years**: 1 spray in each nostril BID	(200 sprays) US: ~$20
Azelastine 0.15% (US only) (Astepro Allergy, Children's Astepro Allergy)[f] AH OTC	1 to 2 sprays in each nostril BID **OR** 2 sprays in each nostril once daily (max 4 sprays in each nostril per day)	**6 to 11 years**: 1 spray in each nostril BID (max 2 sprays in each nostril per day)	(60 sprays) US: ~$20 (120 sprays) US: ~$25 (240 sprays) US: ~$50
Azelastine 0.15% (US only) (previous brand Astepro)[f] AH Rx G	**Seasonal allergies**: 1 to 2 sprays in each nostril BID **OR** 2 sprays in each nostril once daily **Perennial allergies**: 2 sprays in each nostril BID	**6 to 11 years**: 1 spray in each nostril BID	(200 sprays) US: ~$110
Azelastine/Fluticasone (Dymista)[c,f] AH S Rx G	(fluticasone: 50 mcg/spray) 1 spray in each nostril BID	(fluticasone: 50 mcg/spray) **6 years and older**: 1 spray in each nostril BID	(120 sprays) US: ~$170 Canada: ~$97
Beclomethasone (Canada only)[f] S Rx G	(50 mcg/spray) 2 sprays in each nostril BID	(50 mcg/spray) **6 years and older**: 2 sprays in each nostril BID	(200 sprays) Canada: ~$13
Beclomethasone (US only) (Qnasl)[g] S Rx	(80 mcg/spray) 2 sprays in each nostril once daily	(40 mcg/spray) **4 to 11 years**: 1 spray in each nostril once daily	(80 mcg; 120 sprays) US: ~$320 (40 mcg; 60 sprays) US: ~$320
Budesonide (Canada only) (previous brand Rhinocort Aqua)[f] S Rx G	(100 mcg/spray) 1 spray in each nostril BID **OR** 1 to 2 sprays in each nostril once daily	(100 mcg/spray) **6 to 11 years**: 1 to 2 sprays in each nostril once daily	(165 sprays) Canada: ~$17
	(64 mcg/spray) 1 spray in each nostril BID **OR** 1 to 2 sprays in each nostril once daily	(64 mcg/spray) **6 to 11 years**: 1 to 2 sprays in each nostril once daily	(120 sprays) Canada: ~$11
Budesonide (US only) (previous brand Rhinocort Allergy)[f] S OTC G	(32 mcg/spray) 1 to 2 sprays in each nostril once daily	(32 mcg/spray) **12 years and older**: same as adult dose	(120 sprays) US: ~$20
Ciclesonide (Omnaris)[f] S Rx	(50 mcg/spray) 2 sprays in each nostril once daily	(50 mcg/spray) **6 to 11 years (US)**: (for seasonal allergic rhinitis indication only): 2 sprays in each nostril once daily Not indicated for patients under 12 years (**Canada**)	(120 sprays) US: ~$295 Canada: ~$29

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Nasal Sprays for Allergic Rhinitis

Updated April 2025

Product (Class)	Adult Dose[a] (mcg/spray provided for steroids)	Pediatric Dose[a] (mcg/spray provided for steroids)	Cost[b]
Ciclesonide (US only) (Zetonna)[g] S Rx	(37 mcg/spray) 1 spray in each nostril once daily	**12 years and older**: same as adult dose	(60 sprays) US: ~$220
Cromolyn (US only) (NasalCrom)[f] MCS OTC G	1 spray in each nostril three to six times each day	**2 to 11 years**: 1 spray in each nostril three to six times each day	(200 sprays) US: ~$7
Flunisolide (US only)[f] S Rx G	(50 mcg/spray) 2 sprays in each nostril BID to TID (max 8 sprays in each nostril per day)	(50 mcg/spray) **6 to 14 years**: 2 sprays in each nostril BID **OR** 1 spray in each nostril TID (max 4 sprays in each nostril per day)	(200 sprays) US: ~$56
Fluticasone furoate (US only) (Flonase Sensimist)[f] S OTC	(27.5 mcg/spray) **Week 1**: 2 sprays in each nostril once daily **Week 2 to 6 months**: 1 to 2 sprays in each nostril once daily, as needed	(27.5 mcg/spray) **2 to 11 years**: 1 spray in each nostril once daily	(60 sprays) US: ~$15 (120 sprays) US: ~$23
Fluticasone furoate (Canada only)[e] (Avamys)[f] S Rx	(27.5 mcg/spray) 2 sprays in each nostril once daily	(27.5 mcg/spray) 1 to 2 sprays in each nostril once daily	(120 sprays) Canada: ~$35
Fluticasone propionate (Flonase Allergy Relief)[e,f] S OTC G	(50 mcg/spray) **US**: **Week 1**: 2 sprays in each nostril once daily **Week 2 to 6 months**: 1 to 2 sprays in each nostril once daily, as needed **Canada**: 1 to 2 sprays in each nostril once daily	(50 mcg/spray) **US**: **4 to 11 years**: 1 spray in each nostril once daily **Canada**: OTC product is not indicated under 18 years.	(144 sprays) US: ~$17 (60 sprays) Canada: ~$25 (120 sprays) Canada: ~$37
Fluticasone propionate (Canada only) (previous brand Flonase) S Rx G	Rx product is not indicated for 18 years and older.	(50 mcg/spray) **4 to 11 years**: 1 to 2 sprays in each nostril once daily **12 to 17 years**: 2 sprays in each nostril once or twice daily	(60 sprays) Canada: ~$15 (120 sprays) Canada: ~$23
Ipratropium **0.03%** (21 mcg/spray)[d,f] (Ipravent [Canada], previous brand Atrovent [US]) ACH Rx G*	2 sprays in each nostril BID to TID	**6 to 12 years (US) or 12 years and older (Canada)**: 2 sprays in each nostril BID to TID	(345 sprays) US: ~$34 Canada: ~$35
Ipratropium **0.06%** (42 mcg/spray)[c,f,h] (US only) (previous brand Atrovent) ACH Rx G	2 sprays in each nostril QID	**5 to 12 years**: 2 sprays in each nostril QID	(165 sprays) US: ~$34
Mometasone (US only) (Nasonex 24HR Allergy)[c,f] S OTC G	(50 mcg/spray) 2 sprays in each nostril once daily	(50 mcg/spray) **2 to 11 years**: 1 spray in each nostril once daily	(60 sprays) US: ~$11 (120 sprays) US: ~$20

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Nasal Sprays for Allergic Rhinitis

Updated April 2025

Product (Class)	Adult Dose[a] (mcg/spray provided for steroids)	Pediatric Dose[a] (mcg/spray provided for steroids)	Cost[b]
Mometasone (Nasonex [previous brand in US])[f,i] S Rx G	(50 mcg/spray) 2 sprays in each nostril once daily (**US**) Not indicated in patients older than 11 years for seasonal or perennial allergic rhinitis (**Canada**)	(50 mcg/spray) Not indicated for patients under 12 years (**US**) **3 to 11 years** (**Canada**): 1 spray in each nostril once daily	(120 sprays) US: ~$120 (140 sprays) Canada: ~$11
Olopatadine (US only) (Patanase)[c,f] AH Rx G	2 sprays in each nostril BID	**6 to 11 years**: 1 spray in each nostril BID	(240 sprays) US: ~$77
Olopatadine/Mometasone (Ryaltris)[c,f] AH S Rx	(mometasone: 25 mcg/spray) 2 sprays in each nostril BID	(mometasone: 25 mcg/spray) Not indicated for patients under 12 years (**US**) **6 to 11 years** (**Canada**): 1 spray in each nostril BID	(240 sprays) US: ~$250 Canada: ~$64
Triamcinolone (Canada only) (Nasacort AQ) S Rx G	Not indicated for patients older than 12 years	(55 mcg/spray) **4 to 12 years**: 1 spray in each nostril once daily; may increase to 2 sprays in each nostril if needed	(120 sprays) Canada: ~$22
Triamcinolone (Nasacort Allergy 24HR)[f] S OTC G*	(55 mcg/spray) 1 to 2 sprays in each nostril once daily	(55 mcg/spray) Not indicated for patients under 12 years (**Canada**) **2 to 5 years (US)**: 1 spray in each nostril once daily **6 to 12 years (US)**: 1 to 2 sprays in each nostril once daily	(60 sprays) US: ~$12 Canada: ~$20 (120 sprays) US: ~$16 Canada: ~$28

Abbreviations key: AH antihistamine; ACH anticholinergic; MCS mast cell stabilizer; OTC over-the-counter; Rx prescription; S steroid; G generic available; G* generic available (US)

Other abbreviations: BID = twice daily; TID = three times daily; QID = four times daily

Footnotes:

a. Dosing per FDA- or Health Canada-approved product labeling.* If pediatric dose is 1 to 2 sprays, start with 1 spray.
b. Pricing based on wholesale acquisition cost (WAC), for generic product if available. US medication pricing by Elsevier, accessed February 2025. (Astepro, Flonase Allergy Relief [Canada], and Nasacort Allergy 24HR [Canada] pricing obtained from internet retailer pricing, accessed February 2025).
c. Indicated for seasonal allergic rhinitis only.
d. Indicated for perennial allergic rhinitis only.
e. Note that Rx Flonase (US) (fluticasone propionate, available only as generics) is indicated for perennial nonallergic rhinitis.
f. Aqueous formulation.
g. Alcohol-based formulation.
h. Canadian product is available; however, not included within this chart as it is only indicated for rhinorrhea associated with the common cold.
i. In the US, indicated for seasonal allergic rhinitis only.

The following US product labeling was used for the above chart: azelastine 0.1% (Avkare, February 2021), Astepro Allergy (December 2024), azelastine 0.15% (Amneal, September 2021), Dymista (December 2024), Qnasl (September 2022), budesonide nasal spray (Apotex, accessed March 4, 2025); Omnaris (May 2019), Zetonna (September 2024), NasalCrom (December 2023), flunisolide (Bausch & Lomb, December 2024), Flonase Sensimist (March 2024), Flonase Allergy Relief (December 2024), fluticasone propionate (Chartwell Rx, December 2023); ipratropium 0.03% (September 2024), ipratropium 0.06% (September 2024), Nasonex 24HR Allergy (OTC labeling accessed March 15, 2023), mometasone (Amneal Pharmaceuticals, August 2022), Patanase (June 2021), Ryaltris (October 2023), Nasacort Allergy 24HR (OTC labeling accessed March 15, 2023).
The following Canadian product labeling was used for the above chart: Dymista (November 2024), Apo-beclomethasone (March 2021), Mylan-budesonide AQ 64 mcg/spray (May 2020), Mylan-budesonide AQ 100 mcg/spray (May 2020), Omnaris (February 2021), Avamys (December 2021), Flonase Allergy Relief (July 2024), fluticasone propionate (Teva Canada, June 2017), Ipravent (January 2018), Nasonex (March 2022), Ryaltris (December 2024), Nasacort AQ (September 2022), Nasacort Allergy 24HR (August 2022).

Clinical Resource, *Nasal Sprays for Allergic Rhinitis*. *Pharmacist's Letter/Pharmacy Technician's Letter/Prescriber Insights*. April 2025. [410465]. For nearly 40 years, our editors have distilled primary literature into unbiased, evidence-based recommendations with 0% pharma sponsorship. Learn more