

Allergic Rhinitis Treatment Considerations

AHP Contact: Jennifer Radcliffe@URMC.Rochester.edu

Treatment recommendations adapted from: Dykewicz MS, et al. Ann Allergy Asthma Immunol. 2017. Siedman MD, et al. 2015. (endorsed by AAFP)

Allergic rhinitis occurs when generally harmless substances trigger an allergic reaction. It can take two forms:

- Seasonal- occurs at certain times of the year and typically caused by outdoor allergens (e.g., pollen, grasses)
- Perennial- occurs year-round and typically caused by pets or dust mites

Most patients require pharmacotherapy in addition to allergen avoidance for adequate symptom control.

Pharmacotherapy Recommendations for Allergic Rhinitis- Intranasal Corticosteroids

Intranasal corticosteroids (INCS) are effective for allergic rhinitis symptoms that affect quality of life.

There is no evidence to suggest that one INCS preparation is more effective compared to another:

- All available INCS preparations are effective in relieving symptoms of nasal blockage, nasal discharge, itching, postnasal drip, and total nasal symptoms
- Comparative studies among different INCS have not demonstrated significant differences in efficacy

Selecting an Intranasal Corticosteroid: Given lack of evidence suggesting superior efficacy of one agent over another, the choice of INCS should be based on safety (including drug-drug interaction potential), patient preference, and cost/coverage considerations:

Drug-drug interaction potential differs by INCS:

For patients not on potent CYP3A4 inhibitors:

- Consider preferential use of fluticasone propionate

For patients on potent CYP3A4 inhibitors:

- Consider preferential use of Rhinocort or Nasacort

Cost of INCS varies widely across preparations:

- Fluticasone propionate is available OTC for ~\$14-20
- Rhinocort Allergy and Nasacort Allergy are also available OTC for ~\$20
- **Most prescription INCS are >\$200 (average cash price), even generic Nasonex (mometasone)**

Flonase Sensimist and Nasacort are both approved for ages 2+

Commonly Used Intranasal Corticosteroids[§]

Medication	Availability	Standard Dose for Allergic Rhinitis	Average Cash Price*
Fluticasone propionate (Flonase Allergy)	OTC	2 sprays in each nostril once daily (can reduce to 1 spray once symptoms are controlled)	\$14 (generic) \$23 (brand)
Fluticasone furoate (Flonase Sensimist)	OTC	2 sprays in each nostril once daily (can reduce to 1 spray once symptoms are controlled)	\$23 (brand)
Budesonide (Rhinocort Allergy)	OTC	1-2 sprays in each nostril once daily	\$20 (brand)
Triamcinolone (Nasacort Allergy)	OTC	2 sprays in each nostril once daily (can reduce to 1 spray once symptoms are controlled)	\$20 (generic) \$30 (brand)
Mometasone (Nasonex)	Rx	2 sprays in each nostril once daily	\$210 (generic) \$315 (brand)

OTC: over-the-counter, Rx: prescription only

*Cash prices from www.goodrx.com and various pharmacy websites as of April 2019; prices vary based on pharmacy

[§]Other INCS are available (flunisolide, budesonide, Beconase AQ, Omnaris, etc.) but they are more expensive and have no additional clinical benefit

Pharmacotherapy Recommendations for Allergic Rhinitis- Antihistamines

Second generation oral antihistamines can be an effective choice for patients with primary complaints of sneezing or itching
Intranasal antihistamines (INAH) can be used in combination with INCS, but are less effective than INCS for monotherapy

Selecting an Oral Antihistamine:

Generally avoid first generation antihistamines

- First generation antihistamines (e.g., diphenhydramine) carry higher risk of anticholinergic and CNS side effects (dry mouth, blurred vision, confusion, etc.)
- Second and third generation antihistamines are considered equivalent in terms of efficacy and tolerability

Most antihistamine preparations are available OTC and generically

- Efficacy is equivalent across preparations, therefore generic OTC use should be encouraged to decrease financial burden to patients and prescription paperwork burden to offices

Antihistamines are often used for milder symptoms

- Consider switching patients who have side effects or insufficient symptoms relief with antihistamines to an intranasal corticosteroid given their often superior efficacy

Combination pharmacotherapy is not always better than monotherapy:

- Systematic review showed no clinical benefit to using INCS + oral antihistamine compared to INCS monotherapy
- Systematic review showed superior reduction in total nasal symptoms when using INCS + INAH compared to either monotherapy, but increased risk of headache, bitter taste, and epistaxis
- Additional agents can add significant cost without adding significant benefit

Commonly Used Antihistamines

Medication	Route of Administration	Standard Dose for Allergic Rhinitis	Average Cash Price*
Loratadine (Claritin)	Oral	10 mg once daily	\$6 (generic)
Cetirizine (Zyrtec)	Oral	10 mg once daily	\$7 (generic)
Fexofenadine (Allegra)	Oral	180 mg once daily	\$12 (24-hr formulation)
Desloratadine (Clarinex)	Oral	5 mg once daily	\$127 (generic)
Azelastine (Astepro)	Topical (nasal)	1-2 sprays in each nostril twice daily	\$101
Olopatadine (Patanase)	Topical (nasal)	2 sprays in each nostril twice daily	\$235

*Cash prices from www.goodrx.com and various pharmacy websites as of April 2019; prices vary based on pharmacy

Pharmacotherapy Recommendations for Allergic Rhinitis- Alternative Agents

Oral antihistamine/decongestants provide better symptom relief than decongestants alone

- Abuse of pseudoephedrine has led to wider use of phenylephrine, which is not as effective
- Pseudoephedrine products must be purchased behind the pharmacy counter
- Pseudoephedrine is relatively contraindicated in patients with (uncontrolled) HTN, and caution should be used in patients with glaucoma, CVD, CeVD, hyperthyroidism, etc.

Intranasal decongestant sprays should not be used as monotherapy

- Downregulation of alpha receptors within 3-7 days can lead to rebound decongestion
- Rebound symptoms can be avoided by combining intranasal decongestants with an intranasal corticosteroid

Systemic steroids should not be used for long-term symptom control

- Short courses can reduce symptoms severe enough to prevent patients from sleeping or working but risk:benefit ratio is not favorable for long-term use