

Drug Class Update: Nasal Allergy Inhalers

Date of Review: August 2022

Date of Last Review: July 2015

Dates of Literature Search: 05/31/2015 – 05/25/2022

Current Status of PDL Class:

See **Appendix 1**.

Purpose for Class Update:

Prior authorization (PA) with clinical criteria has been in place for intranasal corticosteroids, antihistamines and mast cell stabilizers since 2002. However, these criteria have not been reviewed by the P&T committee since 2015. These drugs have received Food and Drug Administration (FDA) approval for use in seasonal and/or perennial allergic rhinitis, which is not currently funded by the Oregon Health Plan (OHP), unless the patient has a co-morbidity such as asthma.

Research Questions:

- For adults and children, which conditions have nasal inhalers been studied and FDA-approved to treat?
- Do nasal corticosteroids, antihistamines or mast cell stabilizers differ in effectiveness when used to treat FDA-approved conditions?
- Do nasal corticosteroids, antihistamines or mast cell stabilizers differ in safety when used to treat FDA-approved conditions?
- Are there subgroups of patients based on demographics (e.g., age, race, gender), concomitant comorbidities and medications, or pregnancy status, for which one nasal inhaler is more effective or associated with fewer harms?

Conclusions:

- Intranasal antihistamines and intranasal corticosteroids are FDA-approved to manage symptoms associated with seasonal and perennial allergic rhinitis.^{1,2} The legend status and approved administration age varies by product (see **Table 1**). Intranasal cromolyn is available over-the-counter (OTC) and approved to manage allergic rhinitis in people 2 years of age and older.^{1,2} Intranasal ipratropium is available only by prescription and is approved to manage rhinorrhea associated with seasonal and perennial allergic rhinitis and nonallergic rhinitis in patients 5 years of age and older.^{1,2}
- Since the previous Pharmacy and Therapeutics Committee review in 2015, 3 high-quality systematic reviews have been published regarding the use of intranasal corticosteroids for management of chronic rhinosinusitis,³ nonallergic rhinitis,⁴ and allergic rhinitis.⁵ Two high quality guideline focused on rhinitis and sinusitis management were updated in 2020 and 2015.^{6,7}
- A 2016 Cochrane review assessed the effects of different types of intranasal corticosteroids in people with chronic rhinosinusitis and found insufficient evidence to suggest that one type of intranasal corticosteroid is more effective than another in patients with chronic rhinosinusitis.³ It is unclear if higher doses result in better symptom improvements (low quality evidence), but there was moderate quality evidence of an increased risk of epistaxis as an adverse effect of treatment when higher doses of intranasal corticosteroids were used.³

- A 2019 Cochrane review assessed the effects of intranasal corticosteroids in the management of nonallergic rhinitis.⁴ It is unclear whether intranasal corticosteroids reduce patient-reported disease severity in nonallergic rhinitis patients compared with placebo when therapy was continued up to 3 months (very low- to low-quality evidence).⁴ However, intranasal corticosteroids probably have a higher risk of epistaxis compared with placebo (moderate-quality evidence).⁴
- A 2019 systematic review and meta-analysis examined existing literature to determine efficacy in treating allergic rhinitis with combination azelastine/fluticasone compared to monotherapy with azelastine or fluticasone.⁵ Meta-analysis of high-quality studies revealed superiority of combination therapy in reducing Total Nasal Symptom 4 question (TNS-4) score compared to placebo (mean change from baseline: -2.41; 95% confidence interval (CI), -2.82 to -1.99; P<0.001; I² = 60%), azelastine (mean change from baseline: -1.40; 95% CI, -1.82 to -0.98; P<0.001; I² = 0%), and fluticasone (mean change from baseline: -0.74; 95% CI, -1.17 to -0.31; P<0.001; I² = 12%).⁵ The minimal clinically important difference (MCID) for change in the TNS-4 score is 0.28 points.⁸ The results of this meta-analysis support the recommendations from International Consensus Statement on Allergy and Rhinology⁹ and the American Academy of Otolaryngology–Head and Neck Surgery Foundation¹⁰ for combination azelastine/fluticasone therapy as second-line treatment for patients with allergic rhinitis that is not controlled with monotherapy.⁵
- The American Academy of Allergy, Asthma and Immunology (AAAAI) 2020 rhinitis guideline updated a previously published 2008 guideline on diagnosis and management of allergic and non-allergic rhinitis.⁶ Strong recommendations based on moderate- to high-quality evidence are as follows:
 - Clinicians should offer intranasal antihistamines as an initial treatment option for patients with seasonal allergic rhinitis and nonallergic rhinitis (strength of recommendation: strong; high-quality evidence).⁶
 - When choosing monotherapy for persistent allergic rhinitis, intranasal corticosteroids are the preferred medication (strength of recommendation: strong; high-quality evidence).⁶
 - For the initial treatment of moderate- to severe-seasonal allergic rhinitis in patients 15 years of age and older, the clinician should use an intranasal corticosteroid over a leukotriene antagonist (strength of recommendation: strong; high-quality evidence).⁶
 - Initial treatment with intranasal corticosteroid monotherapy in patients 12 years of age and older with symptoms of seasonal allergic rhinitis is preferred over combination therapy with an oral antihistamine and an intranasal corticosteroid (strength of recommendation: strong; moderate-quality evidence).⁶
- The American Academy of Otolaryngology-Head and Neck Foundation updated clinical practice guidance for adult sinusitis in 2015.⁷ Only one strong recommendation is included in the guidance regarding the use of intranasal corticosteroids:
 - Clinicians should recommend saline nasal irrigation, topical intranasal corticosteroids, or both for symptom relief of chronic rhinosinusitis (strength of recommendation: strong; high-quality evidence).⁷
- The Early and Periodic Screening, Diagnostic and Treatment (EPSDT) benefit provides comprehensive and preventive health care services for children and adolescents who are 20 years of age and younger enrolled in Medicaid.¹¹ The goal of this benefit is to ensure that children receive age-appropriate screening, preventive services, and treatment services that are medically necessary to correct or ameliorate any identified conditions.¹¹ Management of allergic rhinitis symptoms when it impacts the ability to grow, develop or participate in school falls under this benefit.
- No subgroups of patients based on demographics (e.g., age, race, gender), concomitant comorbidities and medications, or pregnancy status were identified for which one nasal inhaler was more effective or associated with fewer harms.

Recommendations:

- No changes to the Preferred Drug List (PDL) for intranasal allergy medications are recommended based on review of recent evidence.

- Remove prior authorization (PA) criteria for preferred intranasal allergy products in children and adolescents with rhinitis up to their 21st birthday to enhance the ability to grow, develop, or participate in school per the EPSDT Medicaid benefit.
- After review of costs in executive session, no PDL changes were recommended.

Summary of Prior Reviews and Current Policy:

- The 2015 class update on allergic rhinitis identified moderate quality evidence that intranasal corticosteroids are effective in managing asthma-related outcomes in patients who are not concurrently receiving an orally inhaled corticosteroid.¹² There is low quality evidence that intranasal corticosteroids reduce apneas and hypopneas, without improving nadir oxygen saturation, by demonstration of improvement in the Apnea Hypopnea Index (AHI) following short-term therapy in children and adults with obstructive sleep apnea (OSA).¹² There is moderate quality evidence that patients receiving intranasal corticosteroids are more likely to experience resolution or improvement in symptoms of acute sinusitis at 21 days of treatment compared to placebo.¹² There is moderate quality evidence that when compared to placebo, intranasal corticosteroids improve symptom scores in patients with chronic rhinosinusitis.¹²
- Evidence is insufficient to draw any conclusions about comparative effectiveness, efficacy, or safety between intranasal corticosteroid formulations for management of asthma-related outcomes, obstructive sleep apnea, acute sinusitis and chronic rhinosinusitis.¹²
- Evidence is insufficient for the intranasal use of antihistamines or mast cell stabilizers for any indication other than allergic rhinitis.¹²
- There is moderate quality evidence that intranasal corticosteroids, antihistamines and mast cell stabilizers are not associated with increased serious harms compared to placebo. However, use of intranasal corticosteroids in growing children may be associated with increased risk for growth suppression.¹²
- All intranasal products require prior authorization (PA) for OHP funded indications. Fluticasone propionate is the only preferred drug on the preferred drug list (PDL) and all other intranasal corticosteroids non-preferred (**Appendix 1**). Non-steroid intranasal allergy drugs are non-preferred due to lack of evidence for OHP-funded conditions. Use of non-preferred intranasal corticosteroids for OHP-funded conditions is restricted as outlined in the PA criteria in **Appendix 3**.

Background:

Allergic rhinitis is an immunoglobulin (Ig) E-mediated disease that occurs after exposure to indoor or outdoor allergens, such as dust mites, insects, animal dander, molds, and pollen.¹³ Symptoms include rhinorrhea, sneezing, nasal congestion, and pruritus.⁹ Allergic rhinitis affects up to 60 million people in the United States annually, can have a major impact on quality of life, and poses a substantial economic burden on society.⁶ Self-reported rates of allergic rhinitis are 10% to 30% of adults and as many as 40% of children in the United States.⁶ A report from the AAAAI estimates that about 19 million employed adults suffer from allergic rhinitis, and that approximately \$4.5 billion in direct costs and 3.8 million lost work and school days are attributable to this disease annually.¹⁴ Rhinitis is also a significant cause of decreased work productivity/presenteeism (work interference) and school performance.⁶ Allergic rhinitis can, by itself, introduce significant inattention, impairment of cognition, and decreased daytime school performance.⁶ Quality of life issues associated with rhinitis include disturbed sleep; daytime somnolence and fatigue; irritability; depression; impairment of physical and social functioning; and attention, learning, and memory deficits.⁶ The EPSDT benefit provides comprehensive and preventive health care services for children aged 20 and younger who are enrolled in Medicaid.¹¹ The goal of this benefit is to ensure that children receive age-appropriate screening, preventive services, and treatment services that are medically necessary to correct or ameliorate any identified conditions.¹¹ It is important that children and adolescents enrolled in Medicaid receive all recommended preventive services and any medical treatment needed to promote healthy growth and development.¹¹ Management of allergic rhinitis symptoms to enhance attention and learning in school falls under this benefit.

Validated clinical surveys for allergic rhinitis often include questions about congestion, rhinorrhea and/or sneezing and may either be representative of current symptoms or reflective of a period of days or weeks.¹⁵ One patient reported outcome measure is the Total Nasal Symptom (TNS-4) score, which is typically administered as an instantaneous daily survey comprised of 4 questions about runny nose, nasal itching, sneezing, and congestion.¹⁵ The TNS-4 score is the sum of scores for each of the 4 symptoms, measured on an ordinal scale of 0, 1, 2 or 3 representing no symptoms, mild, moderate, or severe symptoms respectively for a maximum score of 12.¹⁶ The TNS-4 is the most accepted primary efficacy variable that is rated for drug approval in allergic rhinitis by the Food and Drug Administration (FDA).¹⁷ Relatively few articles have calculated MCID scores for allergic rhinitis outcome measures, and those that have suggest widely different approaches.¹⁸ The Agency for Healthcare Research and Quality (AHRQ) recommended the MCID be equal to 30% of the maximum TNS-4 score (i.e., ± 3.6 points on a 12 point scale).¹⁸ However, when this threshold was applied, the AHRQ panel could not demonstrate any differences in effectiveness between the various therapeutic classes, which they mostly attributed to insufficient evidence to support the superiority of one treatment over another.¹⁸ Although the lack of good comparative data for some of the comparisons contributed to the outcomes, of greater concern was that the AHRQ method was flawed in 2 important ways.¹⁸ First, using the fixed number of ± 3.6 points (on a 12-point scale) based on 30% of the maximum TNS-4 could ultimately negate milder levels of allergic rhinitis from being clinically relevant.¹⁸ Second, although the 30% criterion could be relevant for an individual patient response, there was no indication of how it could be applied to a comparison of differences in population means.¹⁸ A 2010 analysis of 9 RCTS in intermittent and persistent allergic rhinitis patients (n=204) utilized anchor- and distribution based approaches to calculate MCIDs for subjective and objective outcome measures in allergic rhinitis using regression and meta-analysis techniques.¹⁶ Based on the authors' calculations from pooled data, the MCID for the TNS-4 was estimated as 0.23 or 0.28 points depending on whether regression or meta-analytical methods, respectively, were applied.¹⁶ The 12-hour reflective total nasal symptoms score (rTNSS) was also been reported in clinical studies evaluating efficacy of intranasal products.¹⁸ Both morning and evening assessments are added together so the rTNSS can range from 0 to 24 points.¹⁸ For the rTNSS scale of 0 to 24 points, the comparable MCID thresholds would be 0.46 points (by regression analysis) or 0.56 points (by meta-analysis).¹⁸ Despite the very small change in scoring, which calls into question significant clinical benefit, there are no other validated methods to determine MCID for clinical trials of allergic rhinitis medications.¹⁸

Symptoms of rhinitis are classified based on the temporal pattern (seasonal, perennial, or episodic), frequency, and severity.¹³ Mild rhinitis severity is present when symptoms are not interfering with quality of life such as impairment of daily activities, work or school performance, leisure activities, and sleep.⁶ Moderate or severe rhinitis is present when symptoms are troublesome or there is negative impact on any of these quality of life parameters.⁶ Symptom frequency has been divided into intermittent (less than 4 days per week or less than 4 consecutive weeks per year) and persistent (4 or more days per week and 4 or more consecutive weeks per year).⁶ Allergic rhinitis may also be classified by the temporal pattern of environmental exposure to a triggering allergen: 1) seasonal (e.g., from pollens); 2) perennial (year-round, e.g., dust mites); or 3) from episodic allergen exposures not normally encountered in the patient's environment, such as visiting a home with pets.⁶ In the United States, allergic rhinitis has traditionally been viewed as either seasonal or perennial, and it is this classification system that the FDA uses when approving new medications for allergic rhinitis.⁶ Symptoms of acute infectious bacterial rhinosinusitis include nasal congestion, mucopurulent nasal discharge, pain and pressure, headache, olfactory disturbance, postnasal drainage, and cough.⁶ While these symptoms may overlap and mimic those of allergic rhinitis, the presence of a recurrent seasonal pattern of symptoms, the presence of an obvious allergic trigger, and symptoms of nasal or ocular pruritus strongly suggest the diagnosis of allergic rhinitis.⁶ This diagnostic distinction is important to avoid inappropriate treatment of allergic rhinitis with antibiotics.⁶ The leukotriene antagonist, montelukast, should only be used for allergic rhinitis treatment if there has been an inadequate response or intolerance to alternative first-line therapies, which are discussed below.⁶ Nonallergic rhinitis is defined as rhinitis that is independent of an IgE-mediated mechanism that includes vasomotor rhinitis (sometimes referred to as nonallergic rhinopathy or idiopathic rhinitis), infectious rhinitis, food-induced rhinitis, hormonal rhinitis (associated with estrogen/progesterone changes observed in pregnancy, menopause or puberty), drug-induced rhinitis, nonallergic occupational rhinitis, atrophic rhinitis, non-allergic rhinitis with eosinophilia syndrome and rhinitis of the elderly.⁶

Intranasal pharmacologic options for the treatment of rhinitis include corticosteroids, antihistamines, mast cell stabilizers, and anticholinergics (see **Table 1**). Intranasal corticosteroids are the mainstay of treatment for allergic rhinitis.⁹ Specific intranasal corticosteroid agents include beclomethasone, flunisolide, budesonide, fluticasone propionate, mometasone, fluticasone furoate, triamcinolone, and ciclesonide.¹⁹ Mometasone, fluticasone furoate, ciclesonide, and triamcinolone are approved by the Food and Drug Administration (FDA) for use in children 2 years of age and older.¹⁹ They act by decreasing the influx of inflammatory cells and inhibiting the release of cytokines, thereby reducing inflammation of the nasal mucosa.⁹ Intranasal corticosteroids also help reduce symptoms of sneezing, itching, rhinorrhea, and congestion.⁶ Limited data suggest that intranasal corticosteroids can also reduce allergic eye symptoms, such as itching, tearing, redness, and puffiness.⁶ In comparative studies, intranasal corticosteroids have shown superior efficacy to oral antihistamines and leukotriene inhibitors in controlling nasal symptoms, with no significant difference in the relief of ocular symptoms.¹⁰ There is no evidence that one intranasal corticosteroid is superior over another product.⁹ Onset of action for intranasal corticosteroids starts at time points ranging from 3 to 5 hours to 60 hours after first dosing.¹⁰ Patients with known seasonal allergic rhinitis should start prophylactic treatment with intranasal corticosteroids several days before the pollen season with an evaluation of the patient's response in 2 weeks.¹⁰

The most common local adverse effects of intranasal corticosteroids include nasal dryness, throat irritation, burning, hoarseness, sneezing, and bitter aftertaste.²⁰ The effect of intranasal corticosteroids on growth in children has been investigated in controlled studies using both knemometry in short-term studies (2 to 4 weeks) and stadiometry in long-term (12 months) studies.¹⁰ A meta-analysis of 8 randomized controlled trials (n=755) with appropriate controls showed that, compared to children using placebo, mean growth was significantly lower among children using intranasal corticosteroids in trials using knemometry (n = 4) and that there was no significant growth difference in studies using stadiometry (n = 4).²¹ The data suggests that intranasal corticosteroids might have deleterious effects on short-term growth in children, but the heterogeneity in the stadiometry studies makes the effects on long-term growth suppression unclear.¹⁰ All intranasal corticosteroids carry a warning that long-term use may restrict growth in children, so using the lowest effective dose is advised to avoid negative growth effects.²²

Two intranasal antihistamines, azelastine and olopatadine, are FDA-approved for the treatment of rhinitis. Intranasal antihistamines have a rapid onset, are more effective for nasal congestion than oral antihistamines, are more effective for ocular symptoms than intranasal corticosteroids, and show consistent reduction in symptoms and improvement in quality of life in randomized controlled trials (RCTs) compared to placebo.¹⁰ They are less effective for nasal congestion than intranasal corticosteroids.¹⁰ Adverse effects observed with intranasal antihistamines include a bitter aftertaste, headache, nasal irritation, epistaxis, and sedation.¹³ Although intranasal antihistamines are an option if symptoms do not improve with nonsedating oral antihistamines, their use as first- or second-line therapy is limited by adverse effects and twice daily dosing.²³ Either intranasal antihistamines or intranasal corticosteroids may be offered as first-line monotherapy for nonallergic rhinitis.⁶

Intranasal cromolyn is available over the counter and is thought to inhibit the degranulation of mast cells, thereby preventing histamine release.¹³ Although safe for general use, it is not considered first-line therapy for allergic rhinitis because it is less effective than intranasal corticosteroids and is administered three or four times daily.²⁴ Although evidence supports the use of intranasal ipratropium, an anticholinergic, for severe rhinorrhea, it is not effective for other nasal symptoms.²⁵ Adverse effects of ipratropium include dryness of the nasal mucosa, epistaxis, and headache.¹³ The recommended administration is two to three times daily.¹³

Allergic rhinitis also is often associated with and can potentially impact asthma, allergic conjunctivitis, atopic dermatitis, rhinosinusitis, and sleep apnea.⁶ Allergic rhinitis, notably present in about 75% to 80% of all patients with asthma and in nearly 100% with allergic asthma, is associated with increased asthma-related hospitalizations and higher total annual medical costs.⁶ Intranasal use of antihistamines and mast cell stabilizers has not been adequately studied in conditions

outside of allergic rhinitis.¹² However, intranasal corticosteroids have been studied and used for several other conditions that are currently funded by the Oregon Health Plan (OHP).¹² For example, allergic rhinitis and asthma are often comorbid diseases. An epidemiologic association between allergic rhinitis and asthma has been consistently demonstrated across patient populations.¹² Given the association, it is hypothesized that reducing inflammation in the upper airway with an intranasal corticosteroid may improve asthma symptoms.²⁶ Attempts have also been made to reduce frequency of episodes of obstructive sleep apnea by changing the characteristics of the upper airway using therapies such as intranasal corticosteroids.²⁷ Acute sinusitis is frequently caused by a viral infection and is a common reason for primary care visits. Inflammation of nasal mucosa plays an essential role in the development of sinusitis. In addition to treating seasonal and perennial rhinitis, corticosteroids might be beneficial in reducing inflammation in the treatment of sinusitis.²⁸ Lastly, chronic rhinosinusitis (CRS) is a group of disorders characterized by chronic inflammation of the mucosa of the nose and paranasal sinuses, with symptoms that persist for more than 12 weeks without complete resolution of symptoms.²⁹ It is most commonly classified as CRS with nasal polyps (CRSwNP) and CRS without nasal polyps (CRSsNP). The use of corticosteroids for the management of CRS is supported by a high level of evidence, with particularly strong evidence for CRSwNP.²⁹

Table 1. Nasal Allergy Medications: Indications and Age Ranges.^{1,2}

Drug Name (Trade Name)	FDA Indication(s)	Formulation	OTC
Intranasal Antihistamines			
Azelastine (ASTEPRO ALLERGY, generic)	Seasonal Allergic Rhinitis; Perennial Allergic Rhinitis ≥6 yo	205.5mcg/spray	YES
Azelastine (ASTEPRO)	Seasonal Allergic Rhinitis; ≥ 2 yo to 6 yo Perennial Allergic Rhinitis; ≥ 6 months to 6 yo	137 mcg/spray	NO
Olopatadine (PATANSASE, generic)	Seasonal Allergic Rhinitis ≥6 yo	665 mcg/spray	NO
Combination Intranasal Antihistamine/Corticosteroids			
Azelastine-Fluticasone propionate (DYMISTA, generic)	Seasonal Allergic Rhinitis ≥6 yo	137 mcg-50 mcg/spray	NO
Olopatadine-Mometasone (RYALTRIS)	Seasonal Allergic Rhinitis ≥12 yo	665 mcg-25mcg/spray	NO
Intranasal Corticosteroids			
Beclomethasone dipropionate (BECONASE AQ)	Seasonal Allergic Rhinitis; Perennial Allergic Rhinitis; Nonallergic Rhinitis; Nasal Polyps ≥6 yo	42 mcg/spray	NO
Beclomethasone (QNASL)	Seasonal Allergic Rhinitis; Perennial Allergic Rhinitis ≥4 yo	40 mcg and 80 mcg/spray	NO
Budesonide (RHINOCORT ALLERGY, generic)	Seasonal Allergic Rhinitis; Perennial Allergic Rhinitis ≥6 yo	32 mcg/spray	YES
Ciclesonide (OMNARIS)	Seasonal Allergic Rhinitis ≥6 yo Perennial Allergic Rhinitis ≥12 yo	50 mcg/spray	NO
Ciclesonide (ZETONNA)	Seasonal Allergic Rhinitis; Perennial Allergic Rhinitis ≥12 yo	37 mcg/spray	NO
Flunisolide (generic)	Seasonal Allergic Rhinitis; Perennial Allergic Rhinitis ≥6 yo	25 mcg/spray	NO
Fluticasone furoate (FLONASE SENSIMIST)	Allergic Rhinitis ≥2 yo	27.5 mcg/spray	YES

Fluticasone propionate (FLONSASE ALLERGY RELIEF, generic)	Seasonal Allergic Rhinitis; Perennial Allergic Rhinitis; Nonallergic Rhinitis ≥ 4 yo	50 mcg/spray	YES
Fluticasone propionate (EXHANCE)	Nasal polyps ≥ 18 yo	93 mcg/spray	NO
Mometasone (NASONEX, generic)	Seasonal Allergic Rhinitis ≥ 2 yo	50 mcg/spray	YES
Triamcinolone (NASACORT ALLERGY 24 HOUR, generic)	Allergic Rhinitis ≥ 2 yo	50 mcg/spray	YES
Intranasal Mast Cell Stabilizer			
Cromolyn (generic)	Allergic Rhinitis ≥ 2 yo	5200 mcg/spray	YES
Intranasal Anticholinergics			
Ipratropium (generic)	Rhinorrhea associated with Perennial Allergic Rhinitis; Seasonal Allergic Rhinitis; and Nonallergic Rhinitis ≥ 5 yo	21 mcg and 42 mcg/spray	NO
Abbreviations: FDA = Food and Drug Administration; mcg = micrograms; mg = milligrams; OTC = over the counter; yo = years old			

Methods:

A Medline literature search for new systematic reviews and RCTs assessing clinically relevant outcomes to active controls, or placebo if needed, was conducted. The Medline search strategy used for this review is available in **Appendix 3**, which includes dates, search terms and limits used. The OHSU Drug Effectiveness Review Project, Agency for Healthcare Research and Quality (AHRQ), National Institute for Health and Clinical Excellence (NICE), Department of Veterans Affairs, and the Canadian Agency for Drugs and Technologies in Health (CADTH) resources were manually searched for high quality and relevant systematic reviews. When necessary, systematic reviews are critically appraised for quality using the AMSTAR tool and clinical practice guidelines using the AGREE tool. The FDA website was searched for new drug approvals, indications, and pertinent safety alerts.

The primary focus of the evidence is on high quality systematic reviews and evidence-based guidelines. Randomized controlled trials will be emphasized if evidence is lacking or insufficient from those preferred sources.

New Systematic Reviews:

Cochrane: Intranasal Corticosteroids For Chronic Rhinosinusitis

The objective of this 2016 review was to assess the effects of different types of intranasal corticosteroids in people with chronic rhinosinusitis.³ The literature search for the systematic review was conducted through August 2015.³ Randomized controlled trials with a follow-up period of at least 3 months comparing first-generation intranasal corticosteroids (beclomethasone dipropionate, triamcinolone, flunisolide, and budesonide) with second-generation intranasal corticosteroids (ciclesonide, fluticasone furoate, fluticasone propionate, mometasone, and betamethasone sodium phosphate), or sprays versus drops, or low-dose versus high-dose intranasal corticosteroids were included in the selection criteria.³ Primary outcomes included disease-specific health-related quality of life (HRQL), patient-reported disease severity and the most common adverse event associated with nasal corticosteroids, epistaxis.³ Nine RCTs (n=911) met inclusion criteria, including 4 different comparisons.³ The studies varied in size: some were small, with as few as 20 patients, while others included over 200 participants.³ Most studies recruited adult patients, while only one study included children.³ In the majority of the adult studies, most participants were male (72% to 79%).³ In all studies, the participants had chronic rhinosinusitis with nasal polyps.³ None of the studies evaluated the first primary outcome measure, disease-specific HRQL.³

Two very low quality RCTs (n=56) compared fluticasone propionate with beclomethasone dipropionate to evaluate disease severity and epistaxis and found no differences between the 2 steroids.³ One very low quality study (n=100) evaluated disease severity (nasal symptom scores) in a comparison of fluticasone propionate versus mometasone and reported no differences.³ Five studies compared high dose versus low dose steroids (n=663) in participants with nasal polyps.³ Three RCTs used mometasone (400 µg versus 200 µg in adults and older children, 200 µg versus 100 µg in younger children) and 2 RCTs used fluticasone propionate drops (800 µg versus 400 µg).³ Evaluations of disease severity and nasal polyp size were similar between the high-dose and low-dose groups based on low quality evidence.³ Although all studies reported more improvement in polyp scores in the high-dose group, the significance of this is unclear due to the small size of the improvements.³ The primary adverse effect, epistaxis, was more common when higher doses were used (risk ratio [RR] 2.06, 95% CI 1.20 to 3.54, 637 participants, moderate quality evidence).³ Most of the studies that contributed data to this outcome used a broad definition of epistaxis, which ranged from frank bleeding to bloody nasal discharge to flecks of blood in the mucus.³

In summary, there is insufficient evidence to suggest that one type of intranasal corticosteroid is more effective than another in patients with chronic rhinosinusitis, nor that the effectiveness of a spray differs from an aerosol.³ No studies that compared drops with spray were identified.³ It is unclear if higher doses result in better symptom improvements (low quality evidence), but there was moderate quality evidence of an increased risk of epistaxis as an adverse effect of treatment when higher doses of intranasal corticosteroids were used.³

Cochrane: Intranasal Corticosteroids For Nonallergic Rhinitis

Nonallergic rhinitis is defined as dysfunction and non-infectious inflammation of the nasal mucosa that is caused by provoking agents other than allergens or microbes.⁴ Several subgroups of nonallergic rhinitis can be distinguished, depending on the trigger responsible for symptoms; these include occupation, cigarette smoke, hormones, medication, food and age.⁴ This systematic review evaluated literature through July 2019.⁴ Selection criteria included RCTs comparing intranasal corticosteroids, delivered by any means and in any volume, with (a) placebo or no intervention or (b) other active treatments in adults and children (aged 12 years and older).⁴ The primary outcomes were patient-reported disease severity and a significant adverse effect, epistaxis.⁴ Thirteen studies provided data for the main comparison, intranasal corticosteroids versus placebo.⁴ The participants were mainly defined as patients with perennial rhinitis symptoms and negative allergy tests.⁴ No studies reported outcomes beyond three months of follow-up.⁴ Fluticasone propionate was the most commonly used intranasal corticosteroid and was the main intervention in 10 studies, beclomethasone dipropionate was used in 7 studies, flunisolide nasal spray was used in 6 studies, budesonide was used in 5 studies, fluticasone furoate was used in 2 studies, and mometasone and triamcinolone were included in 1 study each.⁴

Thirty-four studies (n=4452) met inclusion criteria; however only 13 RCTs (n=2045) provided data for the main comparison, intranasal corticosteroids versus placebo.⁴ The studies used different scoring systems for patient-reported disease severity, ranging from one symptom to a total nasal symptom score or an overall disease severity score, so data was pooled in each analysis using the standardized mean difference (SMD).⁴ Intranasal corticosteroid treatment may improve patient-reported disease severity as measured by total nasal symptom score compared with placebo at up to 4 weeks (SMD -0.74, 95% CI -1.15 to -0.33; 4 studies; 131 participants; I² = 22%; low-certainty evidence).⁴ However, between 4 weeks and 3 months the improvement in disease severity is very uncertain with no difference from placebo (SMD -0.24, 95% CI -0.67 to 0.20; 3 studies; 85 participants; I² = 0%; very low-certainty evidence).⁴

All 4 studies evaluating the risk of epistaxis showed that there is probably a higher risk in the intranasal corticosteroids group (RR 2.10, 95% CI 1.24 to 3.57; 4 studies; 1174 participants; I² = 0%; moderate-certainty evidence).⁴ The absolute risk difference was 4% with a number needed to harm (NNH) of 25 (95% CI 16.7 to 100).⁴ Intranasal corticosteroids probably resulted in little or no difference in the risk of other adverse events compared to placebo (RR 0.99, 95% CI 0.87 to 1.12; 3 studies; 1130 participants; I² = 0%; moderate-certainty evidence).⁴

Overall, the certainty of the evidence for most outcomes in this review was low or very low.⁴ It is unclear whether intranasal corticosteroids reduce patient-reported disease severity in nonallergic rhinitis patients compared with placebo when measured up to 3 months.⁴ However, intranasal corticosteroids probably have a higher risk of epistaxis compared with placebo.⁴

Intranasal Azelastine and Fluticasone as Combination Therapy for Allergic Rhinitis

A 2019 systematic review and meta-analysis examined existing literature to determine efficacy in treating allergic rhinitis with combination azelastine/fluticasone compared to monotherapy with azelastine or fluticasone.⁵ Literature was searched through January 2018.⁵ Eight articles with a low risk of bias met inclusion criteria.⁵ All studies exhibited a greater decrease in patient-reported symptom scores in patients treated with combination therapy compared to monotherapy or placebo.⁵ Meta-analysis revealed superiority of combination therapy in reducing Total Nasal Symptom Score (TNSS) compared to placebo (mean change from baseline: -2.41; 95% CI, -2.82 to -1.99; $P < 0.001$; $I^2 = 60\%$), azelastine (mean change from baseline: -1.40; 95% CI, -1.82 to -0.98; $P < 0.001$; $I^2 = 0\%$), and fluticasone (mean change from baseline: -0.74; 95% CI, -1.17 to -0.31; $P < 0.001$; $I^2 = 12\%$).⁵ The International Consensus Statement on Allergy and Rhinology and the American Academy of Otolaryngology–Head and Neck Surgery Foundation Clinical Practice Guideline for Allergic Rhinitis both recommend a first-line treatment of intranasal corticosteroid spray and suggest clinicians may offer combination therapy in patients with persistent symptoms.^{9,10} The results of this meta-analysis support the recommendations presented in these 2 guidelines. Azelastine/fluticasone combination therapy should be considered as second-line treatment for patients with allergic rhinitis that is not controlled with monotherapy.⁵

After review, one systematic review was excluded due to poor quality (e.g., failure to meet AMSTAR criteria).³⁰

New Guidelines:

High Quality Guidelines:

The American Academy of Allergy, Asthma and Immunology: Rhinitis

The AAAAI 2020 rhinitis guideline updated a previously published 2008 guideline on diagnosis and management of allergic and non-allergic rhinitis.⁶ Recommendations were systematically developed to optimize care of adult and adolescent patients (≥ 12 to 15 years of age) and to assist health care practitioners and patients to make decisions regarding diagnosis and therapy for rhinitis.⁶ Assessment of rhinitis by severity, frequency, and exposure can assist the clinician in developing the most appropriate treatment strategies for an individual patient.⁶

For relief of nasal symptoms of seasonal allergic rhinitis, intranasal antihistamines (e.g., azelastine, olopatadine) are equal to or superior to oral antihistamines and may benefit patients for whom oral antihistamine treatment fails.³¹ Azelastine is also approved for the treatment of perennial allergic rhinitis and vasomotor rhinitis.⁶ Intranasal antihistamines have a more rapid onset of action than intranasal corticosteroids and oral antihistamines, are more effective than oral antihistamines in the control of nasal congestion, and provide a favorable safety profile.⁶ Comparisons of intranasal corticosteroids versus intranasal antihistamines for reduction of nasal symptoms are conflicting, with some showing equality and some showing superiority of intranasal corticosteroids.^{6,10} In a 2002 systematic review of intranasal corticosteroids and intranasal antihistamines, intranasal antihistamines provided comparable relief of allergic eye symptoms.³² The recommendation and strength of evidence regarding the use of intranasal antihistamines in rhinitis is as follows:

- Clinicians should offer intranasal antihistamines as an initial treatment option for patients with seasonal allergic rhinitis and nonallergic rhinitis (strength of recommendation: strong; high-quality evidence).⁶

Intranasal corticosteroids remain the most effective monotherapy for allergic rhinitis and are therefore recommended as preferred monotherapy for moderate and severe allergic rhinitis that have negative impact on quality of life.³³⁻³⁵ Other guidelines from 2010 and 2015 support this recommendation.^{9,36} Not only are these agents effective in controlling nasal symptoms in patients with allergic rhinitis, but they have also been shown to be effective in the control of allergic ocular symptoms.⁶ When given in recommended doses, intranasal corticosteroids are not generally associated with clinically significant systemic side effects.³³ A meta-analysis of relevant trials relating to growth in children suggests that short-term use of intranasal corticosteroids may decrease short-term growth velocity (but there was no such effect on longer-term growth velocity).⁶ Therefore, when using intranasal corticosteroids in children, it is prudent to use the lowest effective dose and monitor growth carefully.⁶ Strong recommendations and associated strength of evidence regarding the use of intranasal corticosteroids in various rhinitis types are as follows:

- When choosing monotherapy for persistent allergic rhinitis, intranasal corticosteroids are the preferred medication (strength of recommendation: strong; high-quality evidence).⁶
- For the initial treatment of moderate- to severe-seasonal allergic rhinitis in patients 15 years of age and older, the clinician should use an intranasal corticosteroid over a leukotriene antagonist (strength of recommendation: strong; high-quality evidence).⁶
- Initial treatment with intranasal corticosteroid monotherapy in patients 12 years of age and older with symptoms of seasonal allergic rhinitis is preferred over combination therapy with an oral antihistamine and an intranasal corticosteroid (strength of the recommendation: strong; moderate-quality evidence).⁶

Ipratropium either as the 0.03% or 0.06% concentration is safe, well-tolerated, and is effective for the treatment of rhinorrhea related to perennial allergic rhinitis (0.03%) and non-allergic rhinitis (0.03%), as well as for the common cold (0.06%).⁶ While ipratropium bromide 0.06% is FDA-approved for the treatment of seasonal allergic rhinitis in both children and adults, no randomized controlled trials have been completed to study its effectiveness.⁶ The efficacy of ipratropium appears to especially benefit rhinorrhea.⁶ Ipratropium has not been shown to be of significant value when postnasal drainage is the dominant complaint.⁶ The most common adverse effects reported with ipratropium are nasal dryness and epistaxis, although these are usually mild and rarely lead to discontinuation of treatment.⁶ The conditional recommendations for the use of ipratropium are based on moderate- to low-quality evidence depending on the type of rhinitis as follows:

- Patients with perennial allergic rhinitis and non-allergic rhinitis who have rhinorrhea as their main nasal symptom should be offered intranasal ipratropium (strength of recommendation: conditional; low-quality evidence for perennial allergic rhinitis and moderate-quality evidence for non-allergic rhinitis).⁶
- For patients taking an intranasal corticosteroid who have persistent rhinorrhea, the clinician may consider the addition of intranasal ipratropium (strength of recommendation: conditional; moderate-quality evidence).⁶

The primary benefit of cromolyn sodium is to stabilize mast cells and thus inhibit the release of mast cell mediators that promote IgE-mediated allergic rhinitis.⁶ Intranasal administration of cromolyn sodium, compared with placebo, improves symptoms of seasonal allergic rhinitis.⁶ In perennial allergic rhinitis, with marked skin test responses, benefit has been found in some but not all studies of patients with perennial allergic rhinitis.⁶ Intranasal cromolyn may reduce nasal eosinophils in patients with allergic rhinitis.⁶ The AAAAI recommendation for use of intranasal cromolyn in rhinitis is as follows:

- Intranasal cromolyn may be offered as an option to be taken just prior to allergen exposure to reduce symptoms of allergic rhinitis from episodic allergen exposures (strength of recommendation: conditional; very low-quality evidence).⁶

The AAAAI conditional recommendation to initiate combination intranasal corticosteroid/intranasal antihistamine therapy is based on high quality evidence as follows:

- Clinicians may consider the combination of an intranasal corticosteroid and intranasal antihistamine for the initial treatment of moderate/severe nasal symptoms of seasonal allergic rhinitis in patients 12 years of age and older (strength of recommendation: conditional; high-quality evidence).⁶

The American Academy of Otolaryngology-Head and Neck Foundation

The American Academy of Otolaryngology-Head and Neck Foundation updated clinical practice guidance for adult sinusitis in 2015.⁷ Inflammation is considered the pathological basis for chronic rhinosinusitis, and therefore corticosteroids are widely recommended.⁷ The efficacy of topical steroid therapy for reducing symptoms of chronic rhinosinusitis is supported by systematic reviews of randomized controlled trials from Cochrane authors that show benefits with excellent safety and minimal adverse events.³⁷ The benefits are symptomatic relief, promoting awareness of effective over-the-counter interventions, discouraging improper and ineffective usage, and avoiding adverse events from systemic therapies.⁷ The risks include intranasal discomfort, burning, stinging and epistaxis.⁷

- Strong recommendation that clinicians should recommend saline nasal irrigation, topical intranasal corticosteroids, or both for symptom relief of chronic rhinosinusitis. (aggregate evidence quality grade A: systematic review of RCTs; high-quality evidence).⁷

Intranasal steroids may have a role in managing viral rhinosinusitis, even though they do not have a FDA indication for this purpose.⁷ A systematic review found that topical nasal steroids relieved facial pain and nasal congestion in patients with rhinitis and acute sinusitis, even though many patients likely had viral illness.³⁸ The magnitude of effect, however, was small: 66% of patients improved with placebo at 14 to 21 days, rising to 73% with steroid therapy.³⁸ The benefit may be a reduction in symptoms and avoidance of unnecessary antibiotics.⁷ The harms include the adverse effects of topical corticosteroids.⁷

- Optional recommendation that clinicians may recommend topical intranasal steroids, and/or nasal saline irrigation for symptomatic relief of viral rhinosinusitis (aggregate evidence quality grade B and C: RCTs with limitations and cohort studies; moderate-quality evidence).⁷

A Cochrane review, which included 4 RCTs of topical intranasal steroid versus placebo or no intervention as monotherapy for acute bacterial rhinosinusitis, found that steroids increased the rate of symptom improvement from 66% to 73% after 15 to 21 days (risk ratio, 1.10; 95% CI, 1.02-1.18). The studies had low risk of bias, and only minor adverse events were reported, which included epistaxis, headache, and nasal itching.³⁹ The benefit may be a modest increase in symptom relief from topical nasal corticosteroids (number needed to treat 14). The harms include the adverse effects of topical corticosteroids.⁷

- Optional recommendation that clinicians may recommend topical intranasal steroids, and/or nasal saline irrigation for symptomatic relief of acute bacterial rhinosinusitis (aggregate evidence quality grade A: systematic review of RCTs; moderate-quality evidence).⁷

After review, 1 guideline was excluded due to poor quality.⁴⁰

New Formulations or Indications:

- A new formulation of fluticasone propionate nasal spray (XHANCE) received FDA approval September 2017.⁴¹ This device delivers fluticasone into the nose by actuating the pump spray into one nostril while simultaneously blowing into the mouthpiece of the inhaler, which improves deposition of fluticasone throughout the nasal cavity.⁴² XHANCE is FDA-approved for the treatment of nasal polyps in patients 18 years of age and older.⁴¹ The recommended dose is one spray (93 mcg) per nostril twice daily (total daily dose of 372 mcg).⁴¹ Three studies were submitted to the FDA for approval of this product. Two safety and efficacy double-blind, placebo-controlled RCTs (Study 3101 and Study 3102) were conducted over 16 weeks in patients with bilateral nasal polyps and 1 open-label safety trial was conducted over 12 months in patients with chronic sinusitis with or without nasal polyps.⁴³ The large majority of patients enrolled were White, 88% and 94% for Studies 3101 and 3102, respectively.⁴³ For Study 3101, 50% of the patients were male

with 44% of the patients were enrolled from US sites.⁴³ For Study 3102, 58% of patients were male with 41% enrolled from US sites.⁴³ Patients received placebo, fluticasone 93 mcg, 186 mcg, or 372 mcg intranasally twice daily.⁴³

The 2 co-primary efficacy variables were reduction of nasal congestion and obstruction symptoms at Week 4 and reduction in the nasal polyp grade at Week 16.⁴³ The reduction of nasal congestion/obstruction symptoms at Week 4 was defined as the change from baseline in instantaneous morning diary symptom scores to the Week 4 visit.⁴³ Symptoms graded on a scale of 0 (no symptoms) to 3 (severe symptoms) included nasal congestion/obstruction, rhinorrhea, facial pain or pressure symptoms, and sense of smell.⁴³ In study 3101, reduction of nasal congestion was improved with fluticasone for all of the twice daily doses compared to placebo (93 mcg least square mean [LSM] difference = -0.25; 95% CI -0.43 to -0.06; p= 0.01; 186 mcg LSM difference = -0.30; 95% CI -0.48 to -0.11; p=0.002); 372 mcg LSM difference = -0.39; 95% CI -0.57 to -0.19; p<0.001).⁴³ Similar results in reduction of nasal congestion with fluticasone compared with placebo were observed in Study 3102.⁴³ The reduction in nasal polyp grade at Week 16 was defined as the change from the screening baseline in the total polyp grade (sum of scores from both nasal cavities) at the Week 16 assessment. Polyp grade of each nasal cavity was determined on a four-point polyp grading scale (0 – no polyps, 1- mild polyposis, 2 - moderate polyposis, 3 - severe polyposis) using nasoendoscopy at monthly screenings.⁴³ In Study 3101, the change from baseline in bilateral nasal polyp grade at week 16 was improved for the twice daily fluticasone 186 mcg dose (LSM difference = -0.59; 95% CI -0.93 to -0.24) and 372 mcg dose (LSM difference = -0.62; 95% CI -0.96 to -0.27) compared to placebo.⁴³ Similar improvements in nasal polyp grade were observed in Study 3012.⁴³ Serious adverse effects and study discontinuations due to adverse effects were uncommon in the 16-week RCTs.⁴³ Epistaxis occurred relatively frequently, in about 20% of patients on active treatment compared with 6% of those receiving placebo.⁴³

- A combination nasal spray of the antihistamine, olopatadine, and corticosteroid, mometasone, (RYALTRIS) received FDA-approval in January 2022.⁴⁴ RYALTRIS is indicated for the treatment of symptoms of seasonal allergic rhinitis in patients 12 years of age and older.⁴⁴ The efficacy of RYALTRIS was evaluated in 2 multi-center, double-blind, placebo and active-comparator (e.g., olopatadine or mometasone) RCTs of 2-week duration in 2,352 subjects 12 years of age and older with seasonal allergic rhinitis.⁴⁴ In both studies, 2-week treatment with RYALTRIS resulted in a statistically significant improvement in rTNSS compared to olopatadine hydrochloride (LSM difference: -0.4 points; 95% CI -0.8 to -0.1; p<0.5) and to mometasone furoate (LSM difference: -0.5 points ; 95% CI -0.9 to -0.1; p<0.5) as well as to placebo (LSM difference: -1.1 points; 95% CI -1.5 to -0.7; p<0.5).⁴⁴ The MCID for this score is 0.46 points,⁸ so clinical significance was only observed when combination therapy was compared to placebo and mometasone. Adverse reactions observed in clinical trials included dysgeusia (bitter taste), epistaxis, and nasal discomfort.⁴⁴
- Azelastine (ASTEPRO ALLERGY) 0.15% nasal spray received a partial over-the-counter (OTC) status as of June 2021 for treatment of seasonal and perennial allergic rhinitis in people six years of age and older.⁴⁵ The 0.1% strength, which includes the perennial allergy indication for children 6 months to 6 years old and seasonal allergy indication for children 2 to 6 years old, will remain prescription based.⁴⁵
- Mometasone (NASONEX 24HR ALLERGY) received FDA approval March 2022 for OTC status.⁴⁶

New FDA Safety Alerts:

Table 1. Description of new FDA Safety Alerts⁴⁷

Generic Name	Brand Name	Month / Year of Change	Location of Change (Boxed Warning, Warnings, CI)	Addition or Change and Mitigation Principles (if applicable)
Beclomethasone Dipropionate	QNASL	7/2017	Warnings and Precautions	<p>Additions are underlined</p> <p>Use of intranasal and inhaled corticosteroids may result in the development of <u>increased intraocular pressure</u>, <u>blurred vision</u>, glaucoma and/or cataracts. Therefore, close monitoring is warranted in patients with a change in vision or with a history of increased intraocular pressure, <u>blurred vision</u>, glaucoma, and/or cataracts.</p>

Randomized Controlled Trials:

A total of 111 citations were manually reviewed from the initial literature search. After further review, 111 citations were excluded because of wrong study design (e.g., observational), comparator (e.g., no control or placebo-controlled), or outcome studied (e.g., non-clinical).

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Appendix 1: Current Preferred Drug List

Generic	Brand	Route	Form	PDL	OTC
fluticasone propionate	FLUTICASONE PROPIONATE	NASAL	SPRAY SUSP	Y	F
azelastine HCl	AZELASTINE HCL	NASAL	SPRAY/PUMP	N	F
azelastine/fluticasone	AZELASTINE-FLUTICASONE	NASAL	SPRAY/PUMP	N	F
azelastine/fluticasone	DYMISTA	NASAL	SPRAY/PUMP	N	F
beclomethasone dipropionate	QNASL	NASAL	HFA AER AD	N	F
beclomethasone dipropionate	QNASL CHILDREN	NASAL	HFA AER AD	N	F
beclomethasone dipropionate	BECONASE AQ	NASAL	SPRAY	N	F
budesonide	BUDESONIDE	NASAL	SPRAY/PUMP	N	O
ciclesonide	ZETONNA	NASAL	HFA AER AD	N	F
ciclesonide	OMNARIS	NASAL	SPRAY/PUMP	N	F
cromolyn sodium	CROMOLYN SODIUM	NASAL	SPRAY/PUMP	N	O
cromolyn sodium	NASAL ALLERGY CONTROL	NASAL	SPRAY/PUMP	N	O
cromolyn sodium	NASAL ALLERGY SPRAY	NASAL	SPRAY/PUMP	N	O
flunisolide	FLUNISOLIDE	NASAL	SPRAY	N	F
flunisolide	NASALIDE	NASAL	SPRAY	N	F
fluticasone propionate	XHANCE	NASAL	AER BR.ACT	N	F
fluticasone propionate	ALLERGY RELIEF	NASAL	SPRAY SUSP	N	O
fluticasone propionate	FLUTICASONE PROPIONATE	NASAL	SPRAY SUSP	N	O
ipratropium bromide	IPRATROPIUM BROMIDE	NASAL	SPRAY	N	F
mometasone furoate	MOMETASONE FUROATE	NASAL	SPRAY/PUMP	N	F
olopatadine HCl	OLOPATADINE HCL	NASAL	SPRAY/PUMP	N	F
olopatadine HCl	PATANASE	NASAL	SPRAY/PUMP	N	F
triamcinolone acetonide	24 HOUR NASAL ALLERGY	NASAL	SPRAY	N	O
triamcinolone acetonide	NASAL ALLERGY	NASAL	SPRAY	N	O
triamcinolone acetonide	TRIAMCINOLONE ACETONIDE	NASAL	SPRAY	N	O

F= Federal Legend (Prescription)

O=Over-The-Counter (OTC)

Appendix 2: Medline Search Strategy

Ovid MEDLINE(R) without Revisions 1996 to May Week 3 2022, Ovid MEDLINE(R) In-Process & In-Data Review Citations 1946 to May 25, 2022

1	exp Beclomethasone/	1694
2	exp Budesonide/	4268
3	ciclesonide.mp.	393
4	flunisolide.mp.	214
5	exp Fluticasone/	3231
6	Exp Mometasone/	846
7	exp Triamcinolone Acetonide/ or exp Triamcinolone/	5391
8	exp Nasal Absorption/ or exp Administration, Intranasal/	12660
9	1 or 2 or 3 or 4 or 5 or 6 or 7	14689
10	8 and 9	734
11	exp Asthma/	90139
12	exp Sleep Apnea Syndromes	35765
13	exp Sinusitis/	14950
14	exp Rhinitis, Allergic/	22977
15	11 or 12 or 13 or 14	215337
16	10 and 15	700
17	Limit 16 to (english language and humans and yr="2015-Current"	88

Ovid MEDLINE(R) without Revisions 1996 to May Week 3 2022, Ovid MEDLINE(R) In-Process & In-Data Review Citations 1946 to May 25, 2022

1	azelastine.mp.	773
2	exp Olopatadine	296
3	exp Ipratropium	1901
4	exp Cromolyn Sodium/	4106
5	exp Nasal Absorption/ or exp Administration, Intranasal/	15986
6	1 or 2 or 3 or 4	6937
7	5 and 6	334
8	exp Sleep Apnea Syndromes/	40793
9	exp Sinusitis/	22447
10	exp Asthma/	13770
11	exp Rhinitis, Allergic/	22950
12	8 or 9 or 10 or 11	214895
13	7 and 12	226
14	Limit 13 to (english language and humans and yr="2015-Current"	23

Intranasal Allergy Drugs

Goals:

- Restrict use of intranasal allergy inhalers for conditions funded by the OHP and where there is evidence of benefit.
- Treatment for allergic or non-allergic rhinitis is funded by the OHP only if it complicates asthma, sinusitis or obstructive sleep apnea. Only intranasal corticosteroids have evidence of benefit for these conditions.
- The Early and Periodic Screening, Diagnostic and Treatment (EPSDT) benefit provides comprehensive and preventive health care services for children and adolescents up to their 21st birthday who are enrolled in Medicaid.¹ Management of allergic rhinitis symptoms falls under this benefit when it impacts the ability to grow, develop or participate in school.

Length of Authorization:

- 30 days to 12 months

Requires PA:

- Preferred intranasal corticosteroids without prior claims evidence of asthma for adults 21 years of age and older.
- Preferred intranasal antihistamines for adults 21 years of age and older.
- Non-preferred intranasal corticosteroids
- Non-preferred intranasal antihistamines
- Intranasal ipratropium
- Intranasal cromolyn sodium

Covered Alternatives:

- Current PMPDP preferred drug list per OAR 410-121-0030 at www.orpdl.org
- Searchable site for Oregon FFS Drug Class listed at www.orpdl.org/drugs/
- Preferred intranasal corticosteroids, preferred antihistamines DO NOT require prior authorization for children and adolescents up to their 21st birthday.

Approval Criteria		
1. What diagnosis is being treated?	Record ICD10 code	
2. Is the prescribed drug intranasal ipratropium or cromolyn?	Yes: Pass to RPh. Deny; not funded by the OHP	No: Go to #3

Approval Criteria

<p>3. Does patient have co-morbid conditions funded by the OHP?</p> <ul style="list-style-type: none"> • Chronic Sinusitis (J320-J329) • Acute Sinusitis (J0100; J0110; J0120; J0130; J0140; J0190) • Sleep Apnea (G4730; G4731; G4733; G4739) 	<p>Yes: Document ICD10 code(s) and approve for up to 12 months for chronic sinusitis or sleep apnea and approve for no more than 30 days for acute sinusitis</p>	<p>No: Go to #4</p>
<p>4. Is there a diagnosis of asthma or reactive airway disease in the past 1 year (J4520-J4522; J45901-45998)?</p>	<p>Yes: Go to #5</p>	<p>No: Go to #6</p>
<p>5. Is there a claim for an <i>orally</i> inhaled corticosteroid in the past 90 days?</p> <p><u>Note:</u> Asthma-related outcomes are not improved by the addition of an intranasal corticosteroid to an orally inhaled corticosteroid.</p>	<p>Yes: Pass to RPh. Deny; medical appropriateness</p>	<p>No: Approve for up to 6 months</p>
<p>6. Is the prescribed drug a preferred product?</p>	<p>Yes: Go to #8</p>	<p>No: Go to #7</p>
<p>7. Will the prescriber consider switching to a preferred product?</p> <p><u>Note:</u> Preferred products are reviewed for comparative effectiveness and safety by the Oregon Pharmacy & Therapeutics Committee.</p>	<p>Yes: Inform prescriber of preferred alternatives. Go to #8</p>	<p>No: Go to #8</p>
<p>8. Is the patient 20 years of age or younger AND is there documentation or provider attestation that the therapy is expected to improve the patient's ability to grow, develop or participate in school?</p>	<p>Yes: Approve for 6 months</p>	<p>No: Go to # 9</p>

Approval Criteria

9. RPh only: Is the diagnosis funded by the OHP?

Funded: Deny; medical appropriateness.

(eg, COPD; Obstructive Chronic Bronchitis; or other Chronic Bronchitis [J449; J40; J410-418; J42; J440-449])

Use clinical judgment to APPROVE for 1 month starting today to allow time for appeal.

Message: "The request has been denied because it is considered medically inappropriate; however, it has been APPROVED for 1 month to allow time for appeal."

Not Funded: Deny; not funded by the OHP.

(eg, allergic rhinitis (J300-J309); chronic rhinitis (J310-312); allergic conjunctivitis (H1045); upper respiratory infection (J069); acute nasopharyngitis (common cold) (J00); urticaria (L500-L509); etc.)

1. Medicaid Early Periodic Screening, Diagnostic, and Treatment benefit. <https://www.medicaid.gov/medicaid/benefits/early-and-periodic-screening-diagnostic-and-treatment/index.html>. Accessed June 9, 2022

P&T / DUR Review: 8/22 (DM); 11/15 (AG); 7/15; 9/08; 2/06; 9/04; 5/04; 5/02
Implementation: 10/1/22; 10/13/16; 1/1/16; 8/25/15; 8/09; 9/06; 3/06; 5/05; 10/04; 8/02