INDIAN HEALTH SERVICE
National Pharmacy and Therapeutics Committee
Formulary Brief: ***Allergic Rhinitis***
-August 2026-

Background:

The Indian Health Service (IHS) National Pharmacy and Therapeutics Committee (NPTC) provided a review of allergic rhinitis (AR) and available treatment options. Medications listed on the National Core Formulary (NCF) relevant to the treatment of AR include any 2nd generation, long-acting H_1 antagonist; any intranasal corticosteroid; and montelukast. Following the clinical review and analysis, the NPTC voted to **remove montelukast from the NCF.**

Allergic rhinitis is an atopic disease in which an immunoglobulin E (IgE)-mediated response is triggered against inhaled allergens resulting in nasal congestion, clear rhinorrhea, sneezing, postnasal drip, and nasal pruritis. Non-nasal associated symptoms include allergic conjunctivitis, non-productive cough, Eustachian tube dysfunction, and chronic sinusitis.[1] The estimated lifetime prevalence of AR in the United States (US). is between 15 and 30%.[2] AR is not common in children under the age of 2 as allergic sensitization requires a few years to develop, but it is one of the most common chronic conditions in children >2 years of age and adolescents affecting 19.93% of pediatric patients.[3, 4] AR is associated with impairment in work productivity with an estimated 3.6% of patients missing work time and 35.9% of patients having impairment in at-work performance due to symptoms.[5]

Discussion:

AR may be classified by temporal pattern (intermittent or persistent) and severity (mild or moderate-severe); however, the US Food and Drug Administration (FDA) prefers to categorize AR as either “seasonal” or “perennial”. Seasonal allergic rhinitis (SAR) tends to be triggered by pollen from trees, grasses, and weeds. Perennial allergic rhinitis (PAR) is generally triggered by indoor allergens such as dust mites, cockroaches, mold spores, or animal dander. Avoidance of triggers is encouraged, but the mainstay of treatment for AR is pharmacotherapy.[1,3]

Drug classes for review included oral antihistamines, intranasal corticosteroids, intranasal antihistamines, combination intranasal corticosteroids and antihistamines, leukotriene receptor antagonists, decongestants, mast cell stabilizers, and intranasal anticholinergics. The Rhinitis 2020: A Practice Parameter Update from the American Academy of Allergy, Asthma, & Immunology and the American College of Allergy, Asthma, and Immunology Joint Task Force on Practice Parameters, 2023 International Consensus Statement on Allergy and Rhinology: Allergy Rhinitis (ICAR-Allergic Rhinitis 2023), and 2024-2025 Allergic Rhinitis and Its Impact on Asthma (ARIA) Part I and Part II Guidelines from the European Academy of Allergy and Clinical Immunology (EAACI) were all reviewed and are summarized below.

Oral H_1 antihistamines (OAH) act as inverse agonists of H_1 receptors. Newer-generation OAH are strongly recommended as treatment for AR over first-generation OAH due to adverse effects including sedation. There is no preference for any newer-generation OAH over another. [6, 7, 9]

Intranasal corticosteroids (INCS) bind to glucocorticoid receptors blocking the synthesis of inflammatory cytokines. INCS are strongly recommended as first-line treatment and preferred monotherapy for AR by *Rhinitis 2020, ICAR-Allergic Rhinitis 2023*, and *ARIA 2024-2025*. Epistaxis and headaches are the most common adverse reactions. [6-8]

Intranasal antihistamines (INAH) act locally at H1 receptors in the nasal mucosa. INAH are recommended as first- or second-line therapy by *Rhinitis 2020, ICAR-Allergic Rhinitis 2023*, and *ARIA 2024-2025*. Bitter taste is the most common adverse reaction and can result in poor adherence. [6-8]

Combined INAH + INCS are an option for patients whose symptoms are not controlled with monotherapy. There are less systemic adverse reactions with INAH + INCS, but epistaxis and bitter taste can still limit adherence. *Rhinitis 2020* and *ICAR-Allergic Rhinitis 2023* both recommend INAH + INCS when monotherapy fails to control AR symptoms. *ARIA 2024-2025* recommends for the use of INAH + INCS over monotherapy with INCS (faster onset of action) or INAH (more effective). [6-8]

Leukotriene receptor antagonists (LTRA) bind to cysteinyl leukotriene receptors to block activation resulting in less bronchoconstriction, vascular permeability, eosinophil recruitment, and chronic inflammation. In 2020, the FDA required a Boxed Warning for montelukast regarding serious mental health side effects including suicidal thoughts and actions and advised restricting its use for AR. *Rhinitis 2020, ICAR-Allergic Rhinitis 2023*, and *ARIA 2024-2025* all recommend against

the use of LTRA as monotherapy for AR and *Rhinitis 2020* recommends against the addition of LTRA to either OAH or INCS. *ARIA 2024-2025* recommends LTRA only in patients not well-controlled with other medications who have a strong preference for oral treatment (particularly if they have asthma). [6, 7, 9, 10]

Decongestants stimulate alpha-adrenergic receptors in the respiratory mucosa resulting in vasoconstriction. *Rhinitis 2020* suggests short-term use of intranasal decongestants in instances of severe mucosal edema which impairs delivery of other intranasal agents and cautions the use of oral decongestants. *ICAR-Allergic Rhinitis 2023* recommends against the use of oral decongestants for routine treatment of AR, but oral decongestants are an option in combination with OAH for acute exacerbation of nasal congestion and intranasal decongestants are an option in combination with INCS for short-term therapy. *ARIA 2024-2025* suggests against the use of intranasal decongestants in the long term (>5 days). [6-9]

Mast cell stabilizers act locally to reduce calcium influx and decrease histamine degranulation from mast cells. *Rhinitis 2020* suggests that intranasal cromolyn may be offered immediately prior to allergen exposure to reduce symptoms of AR. *ICAR-Allergic Rhinitis 2023* recommend cromolyn as a second-line treatment. *ARIA 2024-2025* suggests using INAH over intranasal chromones. [6-8]

Intranasal anticholinergics inhibit serous and seromucous gland secretions. *Rhinitis 2020* suggests that intranasal ipratropium may be offered for perennial AR who have rhinorrhea as their main nasal symptom. *ICAR-Allergic Rhinitis 2023* states that intranasal anticholinergics can be considered as an adjunct to INCS in PAR with persistent rhinorrhea.[6-7]

A 2024 meta-analysis of intranasal vs. oral treatments for AR found INCS or INAH to be more effective than OAH or LTRA at improving both nasal and ocular symptoms with a similar safety profile. Intranasal treatments were more effective in the overall comparison of oral treatments at improving the Total Nasal Symptom Score (TNSS) (MD -0.83; 95% CI: -1.09 to -0.57; I^2 = 65%), the Total Ocular Symptom Score (TOSS) (MD -0.36; 95% CI: -0.56 to -0.17; I^2 = 0%), and the Rhinoconjunctivitis Quality of Life Questionnaire (RQLQ) scores (MD -0.55; 95% CI: -0.94 to -0.17; I^2 = 68%).[11]

A 2025 network meta-analysis ranked interventions based on the probability that an intervention is associated with a clinically relevant difference in assessed outcomes. Azelastine-fluticasone (TNSS in SAR, p=0.939; TOSS in SAR, p=0.945; RQLQ in SAR, p=0.921) and fluticasone furoate (TNSS in PAR, p=0.699; TNSS in SAR, p=0.795; TOSS in PAR, p=0.567; TOSS in SAR, p=0.709; RQLQ in PAR, p=0.802; RQLQ in SAR, p=0.944) were the most frequently highest-ranked interventions for efficacy outcomes, being regularly associated with clinically meaningful larger improvements when compared to other active treatments. INAH + INCS were found to be the highest-ranked interventions for all outcomes assessed (TNSS, TOSS, RQLQ) followed in most cases by INCS. [12]

Findings:

Allergic rhinitis is a common condition with significant impacts on quality of life. Pharmacotherapy commonly used for the treatment of AR includes OAH, INCS, INAH, INCS + INAH, LTRA, decongestants, mast cell stabilizers, and intranasal anticholinergics. Clinical literature strongly supports INCS as preferred primary monotherapy for AR. Alternative first-line treatments include OAH, INAH, or INCS + INAH. Combination of OAH and INCS can be effective when monotherapy with INCS fails to control AR symptoms. Intranasal treatments appear to be more effective than oral treatments with similar side effect profiles. LTRAs are not routinely recommended in the AR treatment as they are less effective than other options and have a risk for serious mental health side effects. For this reason, the NPTC removed montelukast from the NCF. Decongestants should only be considered for short-term use for acute exacerbation of nasal symptoms in AR.

References:

1. Akhouri S, House SA. Allergic Rhinitis. [Updated 2023 Jul 16]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2026 Jan.
2. Wheatley LM, Togias A. Clinical practice. Allergic rhinitis. N Engl J Med. 2015 Jan 29;372(5):456-63.
3. Ellis A. Allergic rhinitis: Clinical manifestations, epidemiology, pathogenesis, and diagnosis, UpToDate, accessed 07/17/26.
4. Licari A, Magri P, De Silvestri AD, et al: Epidemiology of Allergic Rhinitis in Children: A Systematic Review and Meta-Analysis. J Allergy Clin Immunol Pract. 2023; 1(8):2547-2556.
5. Vandenplas O, Vinnikov D, Blanc PD, et al. Impact of Rhinitis on Work Productivity: A Systematic Review. J Allergy Clin Immunol Pract. 2018; 6(4):1274-1286.e9.
6. Dykewicz MS, Wallace DV, Amrol DJ, et al: Rhinitis 2020: A practice parameter update. J Allergy Clin Immunol. 2020 Oct;146(4):721-767.
7. Wise SK, et al: International consensus statement on allergy and rhinology: Allergic rhinitis - 2023. Int Forum Allergy Rhinol. 2023;13(4):293-859.
8. Sousa-Pinto B, Bousquet J, Viera RJ, et al: Allergic Rhinitis and Its Impact on Asthma (ARIA)-EAACI Guidelines-2024-2025 Revision: Part I-Guidelines on Intranasal Treatments. Allergy. 2026; 81(4):954-76.
9. Vieira RJ, Sousa-Pinto B, Bousquet J, et al: Allergic Rhinitis and Its Impact on Asthma (ARIA)-EAACI Guidelines-2024-2025 Revision: Part II-Guidelines on Oral and Ocular Treatments. Allergy. 2026; 81(6):1947-70.
10. US Food and Drug Administration. FDA requires Boxed Warning about serious mental health side effects for asthma and allergy drug montelukast (Singulair); advises restricting use for allergic rhinitis. Issued 2020 Mar 4.
11. Torres MI, Gil-Mata S, Bognanni A, et al. Intranasal Versus Oral Treatments for Allergic Rhinitis: A Systematic Review With Meta-Analysis. J Allergy Clin Immunol Pract. 2024; 12(12):3404-18.
12. Sousa-Pinto B, Vieira RJ, Bognanni A, et al: Efficacy and safety of intranasal medications for allergic rhinitis: Network meta-analysis. Allergy. 2025; 80(1):94-105.