



Asthma Medication Ratio (AMR)

According to the Centers for Disease Control and Prevention (CDC), uncontrolled asthma resulted in 986,453 emergency department (ED) visits and 94,560 hospitalizations in 2020.¹ The Global Initiative for Asthma (GINA) identifies short-acting beta-2 agonist (SABA) overuse as a significant risk factor for asthma exacerbation and mortality, regardless of asthma severity. Dispensing three or more SABA canisters per year is associated with increased risk of ED visits or hospitalizations while dispensing 12 or more canisters per year is associated with a substantially increased risk of death. GINA recommends inhaled corticosteroid (ICS) containing therapy across all treatment groups for improved symptom control and lung function with a reduction in serious exacerbations and mortality.²

GINA Treatment Recommendations According to Asthma Symptom Control²

Frequency of Asthma Symptoms	Adults and Adolescents (12 years and older)		Children (6–11 years)
	Preferred Treatment	Alternate Treatment	Preferred Treatment
Infrequent symptoms less than twice a month	As-needed low-dose ICS-formoterol	Low-dose ICS taken whenever SABA is taken	Low-dose ICS taken whenever SABA is taken
Symptoms twice a month or more, but less than 4–5 days/week	As-needed low-dose ICS-formoterol	Low-dose ICS plus as-needed SABA	Low-dose ICS plus as-needed SABA
Symptoms most days (4–5 days/week), or waking with asthma once a week or more	Low-dose ICS-formoterol maintenance and reliever	Low-dose ICS-LABA plus as-needed SABA	Low- or medium-dose ICS plus as-needed SABA or very-low-dose ICS-formoterol maintenance and reliever
Daily symptoms, or waking with asthma once a week or more, and low lung function	Medium-dose ICS-formoterol maintenance and reliever	Medium- or high-dose ICS-LABA plus as-needed SABA	Medium-dose ICS-LABA plus as-needed SABA or low-dose ICS-formoterol maintenance and reliever

LABA = Long-acting beta-2 agonist

The AMR Healthcare Effectiveness Data and Information Set (HEDIS) measure assesses the percentage of members aged 5–64 years with persistent asthma and a ratio of controller medications to total asthma medications of 0.50 or greater. A higher ratio indicates less frequent use of SABA relievers compared to maintenance therapies. Patients are excluded if they are in hospice or have a history of emphysema, chronic obstructive pulmonary disease, obstructive chronic bronchitis, chronic respiratory conditions due to fumes/vapors, cystic fibrosis or acute respiratory failure.³

How can I help improve performance?

- Ensure patients are dispensed an ICS containing medication if a SABA is used for reliever therapy.
- Consider ICS-formoterol maintenance and reliever for improved adherence and convenience when possible.

Examples of Asthma Controller Medications Satisfying the AMR HEDIS Measure^{3*}

Class	Generic (Brand) [Branded Generic] Name and Strengths	Medi-Cal Rx	OneCare
ICS	Beclomethasone dipropionate (Qvar RediHaler) 40 mcg, 80 mcg	Formulary	Formulary
	Fluticasone furoate (Arnuity Ellipta) 50 mcg, 100 mcg, 200 mcg	Formulary	Formulary
	Fluticasone propionate (Flovent HFA) 44 mcg, 110 mcg, 220 mcg	Formulary	Generic only
ICS-formoterol	Budesonide-formoterol fumarate dihydrate (Symbicort) [Breyna] 80-4.5 mcg, 160-4.5 mcg	Brand only	Generic and Branded Generic only
ICS-LABA combinations	Fluticasone propionate-salmeterol (Advair Diskus) [Wixela Inhub] 100-50 mcg, 250-50 mcg, 500-50 mcg	Brand only	Generic and Branded Generic only
	Fluticasone propionate-salmeterol (Advair HFA) 45-21 mcg, 115-21 mcg, 230-21 mcg	Brand only	Generic only
	Fluticasone furoate-vilanterol (Breo Ellipta) 50-25 mcg [^] , 100-25 mcg, 200-25 mcg	Formulary	Formulary

*Consult formulary links below for list of all approved medications; [^]PA required for Medi-Cal Rx; HFA = Hydrofluoroalkane propellant

References

1. Centers for Disease Control and Prevention. Most Recent National Asthma Data. Updated May 10, 2023. Available from https://www.cdc.gov/asthma/most_recent_national_asthma_data.htm. Accessed February 12, 2024.
2. Global Initiative for Asthma. Global Strategy for Asthma Management and Prevention, 2023. Updated July 2023. Available from www.ginasthma.org.
3. National Committee for Quality Assurance (NCQA). HEDIS MY 2024, Volume 2. Technical Specifications for Health Plans.