HEDIS® Tip Sheet

Effectiveness of Care Measure

Asthma Medication Ratio (AMR)

Learn how to improve the Asthma Medication Ratio (AMR) HEDIS[1] rates by using this tip sheet for key details about the measure, codes, and guidance for documentation.

Measure

Members ages 5–64 years who were were identified as having persistent asthma and had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year[2].

AMR measure eligible population

Members are identified as having persistent asthma who met at least one of the following criteria during both the measurement year and the year prior to the measurement year[3]:

- One emergency department (ED) visit with a principal diagnosis of asthma.
- One acute inpatient encounter, with a principal diagnosis of asthma, without telehealth.
- One acute inpatient discharge with a principal diagnosis of asthma on the discharge claim.
- Four outpatient visits, observation visits, telephone visits or e-visits or virtual check-ins, on different dates of service with any diagnosis of asthma and at least two asthma medication dispensing events for any controller or reliever medication.
- Four asthma medication dispensing events for any controller or reliever medication.
- Four asthma medication dispensing events, where leukotriene modifiers or antibody inhibitors were the sole asthma medications dispensed in that year, must also have at least one diagnosis of asthma.

Measure rate interpretation

The AMR is the number of controller units of medication divided by the number of units of total asthma medications (controller and rescue units) dispensed.

If a member's ratio is less than 0.50 it means that a member is using too much rescue medication and their asthma may not be controlled well.

The goal is for a medication ratio to be higher than 0.50 for the year.

[1] HEDIS – Healthcare Effectiveness Data and Information Set.
[2] NCQA. HEDIS 2023 Technical Specifications for Health Plans, Volume 2, Washington, D.C., 2022.
[3] Criteria does not need to be the same across both years.

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Best practices

- Consider prescribing a formoterol-inhaled corticosteroid combination for acute exacerbations. Formoterol has both a short onset of action, similar to albuterol, and a long duration.
  By using the combination of formoterol and an inhaled corticosteroid for acute exacerbations, you could eliminate the overuse of a short-acting beta-agonist monotherapy and reduce long-term risks associated with this. Please note: Formoterol is the only long-acting beta-agonist with a short onset of action.
- Confirm that patients are adhering to their asthma medication including filling controller prescriptions as advised.
- Check with patients if they have any barriers to filling the prescription.
- Educate patients on the difference between a rescue inhaler versus a long-term controller.
- Assess asthma symptoms at every visit to determine if preventive medication action is needed (i.e., new controller medication, step up in therapy prescription, reinforcement of adherence).
- Consider more frequent visits until the patient is compliant, if possible.
- Utilize an Asthma Action Plan to develop action and treatment plans for patients. Work together with patients and encourage them to follow their Asthma Action Plan to manage their condition.
- Provide a copy of the patient's Asthma Action Plan for school and follow up with the school to confirm access to a rescue inhaler and compliance.
- Help patients to identify their asthma triggers. Educate patients on the importance of an asthma-friendly home environment and perform allergen sensitivity testing if needed. Use the Centers for Disease Control and Prevention's (CDC's) Checklist for Home Visitors to guide patients to assess their home environment.
- Emphasize the importance of smoking cessation, avoidance of environmental tobacco exposure, gastroesophageal reflux disease, and medications that worsen asthma symptoms. Refer smoking and/or vaping patients to a smoking cessation program such as Kick It California at bit.ly/cakickit, a no-cost statewide tobacco cessation program, Monday through Friday, 7 a.m. to 9 p.m., and Saturday from 9 a.m. to 5 p.m. by calling 800-300-8086.
- Refer patients to asthma-related home visit programs available through local community organizations or patients' health insurance plans.

Dispensing event definitions

Oral medication	• One prescription of an amount lasting 30 days or less. • Allocate the dispensing events to the appropriate year based on the date when the prescription is dispensed. • Multiple prescriptions for different medications dispensed on the same day are counted as separate dispensing events. If multiple prescriptions for the same medication are dispensed on the same day, sum the days' supply and divide by 30.
Inhaler	• All inhalers (i.e., canisters) of the same medication dispensed on the same day count as one dispensing event. • Different inhaler medications dispensed on the same day are counted as different dispensing events. • Allocate the dispensing events to the appropriate year based on the date when the prescription was dispensed.
Injection	• Each injection counts as one dispensing event. Multiple dispensed injections of the same or different medications count as separate dispensing events. • Allocate the dispensing events to the appropriate year based on the date when the prescription was dispensed.

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Asthma reliever medications		Codes	
Description	**Prescriptions**	**Description**	**ICD 10 codes**
Short-acting, inhaled beta-2 agonists	Albuterol, Levalbuterol	Asthma diagnosis	ICD10CM: J45.21, J45.22, J45.31, J45.32, J45.41, J45.42, J45.51, J45.52, J45.901, J45.902, J45.990, J45.991, J45.998
		Uncomplicated asthma	J45.30, J45.40, J45.50, J45.909

Asthma controller medications	
Description	**Prescriptions**
Antibody inhibitors	Omalizumab
Anti-interleukin-4	Dupilumab
Anti-interleukin-5	Benralizumab, Mepolizumab, Reslizumab
Inhaled steroid combinations	Budesonide-formoterol, Fluticasone-salmeterol, Fluticasone-vilanterol, Formoterol-mometasone
Inhaled corticosteroids	Beclomethasone, Budesonide, Ciclesonide, Flunisolide, Fluticasone, Mometasone
Leukotriene modifiers	Montelukast, Zafirlukast, Zileuton
Methylxanthines	Theophylline

Note: Budesonide-formoterol and formoterol-mometasone are recommended for both acute exacerbations and control and are preferred medications to ensure an optimal asthma medication ratio.

Exclusions

Exclude members who met any of the following criteria:

- Members who had any diagnosis from any of the following conditions, any time during the measurement year:
  - Emphysema and other emphysema conditions,
  - Chronic obstructive pulmonary disease (COPD),
  - Obstructive chronic bronchitis,
  - Chronic respiratory conditions due to fumes or vapors,
  - Cystic fibrosis, and
  - Acute respiratory failure.
- Members who had no asthma controller or reliever medications dispensed during the measurement year.
- Members in hospice or using hospice services any time during the measurement year.
- Members who died any time during the measurement year.

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Exclusions			
Description	**Code**	**Description**	**Code**
Emphysema and other emphysema conditions	ICD10CM: J43.0-J43.2, J43.8, J43.9, J98.2, J98.3	Cystic fibrosis	ICD10CM: E84.0, E84.11, E84.19, E84.8, E84.9
COPD	ICD10CM: J44.0, J44.1, J44.9	Acute respiratory failure	ICD10CM: J96.00-J96.02, J96.20-J96.22
Obstructive chronic bronchitis	ICD9CM: 491.20-491.22 SNOMED CT: 185086009, 293241000119100	Chronic respiratory conditions due to fumes or vapors	ICD10CM: J68.4