

Asthma Medication Ratio (AMR)



Measure Description

This measure assesses adults and children 5-64 years of age who 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.

Calculation

[Numerator] = Measure Compliance

The number of patients who have a medication ratio* of 0.50 or greater.

[Denominator] = Measure Population

All patients 5-64 years of age as of December 31 of the measurement year who have persistent asthma by meeting at least one of the following criteria during both the measurement year and the year prior to the measurement year:

- At least one emergency department visit with asthma as the principal diagnosis.
- At least one acute inpatient encounter or discharge with asthma as the principal diagnosis.
- At least four outpatient visits, observation visits, telephone visits, or online assessments on different dates of service, with any diagnosis of asthma **and** at least two asthma medication dispensing events for any controller or reliever medication. Visit type need not be the same for the four
- visits. At least four asthma medication dispensing events for any controller medication or reliever medication.

Medication Ratio*

$$\frac{\text{Units of Controller Medication}}{\text{Units of Controlled Medication} + \text{Units of Reliever Medications}}$$

Did You Know?

- Higher AMR scores (≥ 0.5) indicate effective asthma control, showing that a member is using a greater amount of preventive medication compared to quick-relief medication.
- Higher AMR scores (≥ 0.5) are linked to improved patient outcomes, including:
 - Fewer oral corticosteroid bursts
 - Lower rates of asthma-related emergency department visits and hospitalizations
 - Reduced need for rescue medications
- The Global Initiative for Asthma recommends that low-dose inhaled corticosteroid (ICS)/formoterol be preferred to short-acting beta2-agonists as reliever therapy.



Note: This is *NOT* a star measure, and does not apply to members 65 years and older.

Asthma Controller Medications



| Therapeutic Class | Prescriptions |
|------------------------------|--|
| Antibody Inhibitors | Omalizumab |
| Anti-interleukin-5 | Mepolizumab, Reslizumab |
| Inhaled Corticosteroids | Beclomethasone, Budesonide, Ciclesonide, Flunisolide, Fluticasone CFC free, Mometasone |
| Inhaled Steroid Combinations | Budesonide-formoterol, Fluticasone-salmeterol, Fluticasone-vilanterol, Mometasone-formoterol |
| Leukotriene Modifiers | Montelukast, Zafirlukast, Zileuton |
| Methylxanthines | Theophylline, Dyphylline |
| Antiasthmatic Combinations | Dyphylline-guaifenesin, Guaifenesin-theophylline |

Exclusions

- Patients who had any of the following diagnoses any time during the patient's history through December 31 of the measurement year:
 - Emphysema
 - Cystic Fibrosis
 - Acute Respiratory Failure
 - Obstructive Chronic Bronchitis
 - Chronic Obstructive Pulmonary Disease (COPD)
 - Chronic Respiratory Conditions Due To Fumes/Vapors
- No asthma medications (controller or reliever)
- In hospice or used hospice services
- Deceased during the measurement year

Strategies for Rate Improvement

- Educate patients on the appropriate inhaler technique and the differences between the types of inhalers they are using.
- Provide your patient with a personalized asthma action plan.
- Encourage the use of ICS-formoterol as a rescue inhaler for better adherence and asthma control.
- Prescribe a long-term controller medication for patients who use their rescue inhaler frequently.
- Help identify asthma triggers and educate the patient on the importance of an asthma-friendly home and reducing exposure to allergy triggers.
- Report the appropriate diagnosis codes for the patient's condition.

1. Asthma Medication Ratio (AMR). NCQA. <https://www.ncqa.org/hedis/measures/medication-management-for-people-with-asthma-and-asthma-medication-ratio/>
2. Asthma Medication Ratio | Partnership for Quality [Measurement. P4qm.org](https://p4qm.org/measures/1800). Published July 31, 2012. Accessed December 30, 2024. <https://p4qm.org/measures/1800>
3. Luskin AT, Antonova EN, Broder MS, Chang E, Raimundo K, Solari PG. Patient Outcomes, Health Care Resource Use, and Costs Associated with High Versus Low Asthma Medication Ratio. *Journal of Managed Care & Specialty Pharmacy*. 2017;23(11):1117-1124. doi:<https://doi.org/10.18553/jmcp.2017.23.11.1117>

