

MEASURE AMR-CH: ASTHMA MEDICATION RATIO: AGES 5 TO 18

National Committee for Quality Assurance

A. DESCRIPTION

The percentage of children and adolescents ages 5 to 18 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.

Data Collection Method: Administrative

Guidance for Reporting:

- The Asthma Medication Ratio measure is stratified into two age groups: ages 5 to 18 and ages 19 to 64. The Child Core Set measure applies to beneficiaries ages 5 to 18 and the Adult Core Set measure applies to beneficiaries ages 19 to 64.
- Include all paid, suspended, pending, and denied claims.
- Beneficiaries in hospice are excluded from the eligible population. For additional information, refer to the hospice exclusion guidance in Section II. Data Collection and Reporting of the Child Core Set.
- NCQA's Medication List Directory (MLD) for Asthma Controller Medications and Asthma Reliever Medications is available to order free of charge in the NCQA Store (<http://store.ncqa.org/index.php/catalog/product/view/id/3763/s/hedis-my-2020-medication-list-directory/>). Once ordered, the Medication List Directory can be accessed through the NCQA Download Center (<https://my.ncqa.org/Downloads>).

The following coding systems are used in this measure: CPT, HCPCS, ICD-9-CM, ICD-10-CM, Modifier, POS, SNOMED, and UB. Refer to the Acknowledgments section at the beginning of the manual for copyright information.

B. DEFINITIONS

Oral medication dispensing event	<p>One prescription of an amount lasting 30 days or less. To calculate dispensing events for prescriptions longer than 30 days, divide the days supply by 30 and round down to convert. For example, a 100-day prescription is equal to three dispensing events ($100/30 = 3.33$, rounded down to 3). Allocate the dispensing events to the appropriate year based on the date on which the prescription is filled.</p> <p>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.</p> <p>Use the medication lists (see Medication List tables below and link to the Medication List Directory in Guidance for Reporting above) to determine if the drugs are the same or different. Drugs in different medication lists are considered different drugs.</p> <ul style="list-style-type: none"> • Two prescriptions for different medications dispensed on the same day, each with a 60-day supply, equals four dispensing events (two prescriptions with two dispensing events each).
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Oral medication dispensing event (continued)	<ul style="list-style-type: none"> • Two prescriptions for different medications dispensed on the same day, each with a 15-day supply, equals two dispensing events (two prescriptions with one dispensing event each). • Two prescriptions for the same medication dispensed on the same day, each with a 15-day supply, equals one dispensing event (sum the days supply for a total of 30 days). • Two prescriptions for the same medication dispensed on the same day, each with a 60-day supply, equals four dispensing events (sum the days supply for a total of 120 days).
Inhaler dispensing event	<p>When identifying the eligible population, use the definition below to count inhaler dispensing events.</p> <p>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. For example, if a beneficiary received three canisters of Medication A and two canisters of Medication B on the same date, it would count as two dispensing events.</p> <p>Allocate the dispensing events to the appropriate year based on the date when the prescription was filled.</p> <p>Use the medication lists (see Medication List table below and link to the Medication List Directory in Guidance for Reporting above) to determine if drugs are the same or different. Drugs in different medication lists are considered different drugs.</p>
Injection dispensing event	<p>Each injection counts as one dispensing event. Multiple dispensed injections of the same or different medications count as separate dispensing events. For example, if a beneficiary received two injections of Medication A and one injection of Medication B on the same date, it would count as three dispensing events.</p> <p>Use the medication lists (see Medication List tables below and link to the Medication List Directory in Guidance for Reporting above) to determine if drugs are the same or different. Drugs in different medication lists are considered different drugs.</p> <p>Allocate the dispensing events to the appropriate year based on the date when the prescription was filled.</p>
Units of medication	<p>When identifying medication units for the numerator, count each individual medication, defined as an amount lasting 30 days or less, as one medication unit. One medication unit equals one inhaler canister, one injection, one infusion or a 30-day or less supply of an oral medication. For example, two inhaler canisters of the same medication dispensed on the same day count as two medication units and only one dispensing event.</p> <p>Use the package size and units columns in the medication lists (see Medication List tables below and link to the Medication List Directory in Guidance for Reporting above) to determine the number of canisters or injections. Divide the dispensed amount by the package size to determine the number of canisters or injections dispensed. For example, if the package size for an inhaled medication is 10 g and pharmacy data indicates the dispensed amount is 30 g, three inhaler canisters were dispensed.</p>

C. ELIGIBLE POPULATION

Age	Ages 5 to 18 as of December 31 of the measurement year. Report the following age stratifications and total rate: <ul style="list-style-type: none"> • Ages 5 to 11 • Ages 12 to 18 • Total ages 5 to 18
Continuous enrollment	The measurement year and the year prior to the measurement year.
Allowable gap	No more than one gap in enrollment of up to 45 days during each year of continuous enrollment. To determine continuous enrollment for a beneficiary for whom enrollment is verified monthly, the beneficiary may not have more than a 1-month gap in coverage (e.g., a beneficiary whose coverage lapses for 2 months [60 days] is not consider continuously enrolled) during each year of continuous enrollment.
Anchor date	December 31 of the measurement year.
Benefits	Medical during the measurement year and in the year prior to the measurement year. Pharmacy during the measurement year.
Event/diagnosis	Follow the steps below to identify the eligible population. Step 1 Identify beneficiaries 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. Criteria need not be the same across both years. <ul style="list-style-type: none"> • At least one ED visit (<u>ED Value Set</u>), with a principal diagnosis of asthma (<u>Asthma Value Set</u>) • At least one acute inpatient encounter (<u>Acute Inpatient Value Set</u>), with a principal diagnosis of asthma (<u>Asthma Value Set</u>) without telehealth (<u>Telehealth Modifier Value Set</u>; <u>Telehealth POS Value Set</u>) • At least one acute inpatient discharge with a principal diagnosis of asthma (<u>Asthma Value Set</u>) on the discharge claim. To identify an acute inpatient discharge: <ol style="list-style-type: none"> 1. Identify all acute and nonacute inpatient stays (<u>Inpatient Stay Value Set</u>) 2. Exclude nonacute inpatient stays (<u>Nonacute Inpatient Stay Value Set</u>) 3. Identify the discharge date for the stay

Event/diagnosis (continued)	<ul style="list-style-type: none"> • At least four outpatient visits (Outpatient Value Set), observation visits (Observation Value Set), telephone visits (Telephone Visits Value Set), or e-visits or virtual check-ins (Online Assessments Value Set), on different dates of service, with any diagnosis of asthma (Asthma Value Set) 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. Use all of the medication lists (see Medication List tables below and link to the Medication List Directory in Guidance for Reporting above) to identify asthma controller and reliever medications. • At least four asthma medication dispensing events for any controller or reliever medication. Use all of the medication lists (see Medication List tables below and link to the Medication List Directory in Guidance for Reporting above) to identify asthma controller and reliever medications. <p>Step 2</p> <p>A beneficiary identified as having persistent asthma because of at least four asthma medication dispensing events, where leukotriene modifiers or antibody inhibitors were the sole asthma medication dispensed in that year, must also have at least one diagnosis of asthma (Asthma Value Set), in any setting, in the same year as the leukotriene modifier or antibody inhibitor (i.e., the measurement year or the year prior to the measurement year).</p> <p>Step 3: Required exclusions</p> <p>Exclude beneficiaries who met any of the following criteria:</p> <ul style="list-style-type: none"> • Beneficiaries who had any diagnosis from any of the following value sets, any time during the beneficiary's history through December 31 of the measurement year: <ul style="list-style-type: none"> - Emphysema Value Set - Other Emphysema Value Set - COPD Value Set - Obstructive Chronic Bronchitis Value Set - Chronic Respiratory Conditions Due to Fumes or Vapors Value Set - Cystic Fibrosis Value Set - Acute Respiratory Failure Value Set <p>Beneficiaries who had no asthma controller or reliever medications dispensed during the measurement year. Use all the medication lists (see Medication List tables below and link to the Medication List Directory in Guidance for Reporting above) to identify asthma controller and reliever medications.</p>
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D. ADMINISTRATIVE SPECIFICATION

Denominator

The eligible population as defined above.

Numerator

The number of beneficiaries who have a medication ratio of 0.50 or greater during the measurement year. Follow the steps below to calculate the ratio.

Use all the medication lists in Table AMR-A. Asthma Controller Medications table below to identify asthma controller medications. Use all the medication lists in Table AMR-B. Asthma Reliever Medications table below to identify asthma reliever medications.

Step 1

For each beneficiary, count the units of asthma controller medications dispensed during the measurement year. Refer to the definition of Units of medications.

Step 2

For each beneficiary, count the units of asthma reliever medications dispensed during the measurement year. Refer to the definition of Units of medications.

Step 3

For each beneficiary, sum the units calculated in step 1 and step 2 to determine units of total asthma medications.

Step 4

For each beneficiary, calculate the ratio of controller medications to total asthma medications using the following formula. Round (using the .5 rule) to the nearest whole number.

Units of Controller Medications (step 1) / Units of Total Asthma Medications (step 3)

Step 5

Sum the total number of beneficiaries who have a ratio of 0.50 or greater in step 4.

Table AMR-A. Asthma Controller Medications

Description	Prescriptions	Medication Lists	Route
Antiasthmatic combinations	Dyphylline-guaifenesin	Dyphylline Guaifenesin Medications List	Oral
Antibody inhibitors	Omalizumab	Omalizumab Medications List	Injection
Anti-interleukin-4	Dupilumab	Dupilumab Medications List	Injection
Anti-interleukin-5	Benralizumab	Benralizumab Medications List	Injection
Anti-interleukin-5	Mepolizumab	Mepolizumab Medications List	Injection
Anti-interleukin-5	Reslizumab	Reslizumab Medications List	Injection
Inhaled steroid combinations	Budesonide-formoterol	Budesonide Formoterol Medications List	Inhalation
Inhaled steroid combinations	Fluticasone-salmeterol	Fluticasone Salmeterol Medications List	Inhalation
Inhaled steroid combinations	Fluticasone-vilanterol	Fluticasone Vilanterol Medications List	Inhalation

Description	Prescriptions	Medication Lists	Route
Inhaled steroid combinations	Formoterol-mometasone	Formoterol Mometasone Medications List	Inhalation
Inhaled corticosteroids	Beclomethasone	Beclomethasone Medications List	Inhalation
Inhaled corticosteroids	Budesonide	Budesonide Medications List	Inhalation
Inhaled corticosteroids	Ciclesonide	Ciclesonide Medications List	Inhalation
Inhaled corticosteroids	Flunisolide	Flunisolide Medications List	Inhalation
Inhaled corticosteroids	Fluticasone	Fluticasone Medications List	Inhalation
Inhaled corticosteroids	Mometasone	Mometasone Medications List	Inhalation
Leukotriene modifiers	Montelukast	Montelukast Medications List	Oral
Leukotriene modifiers	Zafirlukast	Zafirlukast Medications List	Oral
Leukotriene modifiers	Zileuton	Zileuton Medications List	Oral
Methylxanthines	Theophylline	Theophylline Medications List	Oral

Table AMR-B. Asthma Reliever Medications

Description	Prescriptions	Medication Lists	Route
Short-acting, inhaled beta-2 agonists	Albuterol	Albuterol Medications List	Inhalation
Short-acting, inhaled beta-2 agonists	Levalbuterol	Levalbuterol Medications List	Inhalation

Note

Do not use RxNorm codes when assessing the numerator.

- When mapping NDC codes, medications described as "injection," "prefilled syringe," "subcutaneous," "intramuscular," or "auto-injector" are considered "injections" (route).
- When mapping NDC codes, medications described as "metered dose inhaler," "dry powder inhaler," or "inhalation powder" are considered "inhalation" (route) medications.
- Do not map medications described as "nasal spray" to "inhalation" medications.