



# MEDICAL POLICY STATEMENT

## Ohio Medicaid

Policy Name & Number	Date Effective
Pediatric Asthma-OH MCD-MM-1710	02/01/2025
Policy Type	
MEDICAL	

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Medical Policy Statements prepared by CareSource and its affiliates do not ensure an authorization or payment of services. Please refer to the plan contract (often referred to as the Evidence of Coverage) for the service(s) referenced in the Medical Policy Statement. If there is a conflict between the Medical Policy Statement and the plan contract (i.e., Evidence of Coverage), then the plan contract (i.e., Evidence of Coverage) will be the controlling document used to make the determination. According to the rules of Mental Health Parity Addiction Equity Act (MHPAEA), coverage for the diagnosis and treatment of a behavioral health disorder will not be subject to any limitations that are less favorable than the limitations that apply to medical conditions as covered under this policy.

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## A. Subject

**Pediatric Asthma**

## B. Background

Asthma is the most common chronic childhood disease - an estimated 5 million children in the United States have asthma with a disproportionate number living in poverty. Asthma is an immune-mediated, inflammatory disease, which is characterized by chronic, intermittent, and reversible lower airway obstruction caused by smooth muscle constriction and airway narrowing in response to an environmental trigger. In children, respiratory viral infections are the most common trigger of asthma exacerbation (eg, rhinovirus, influenza, and respiratory syncytial virus).

In general, children are more susceptible to disease and complications, and when combined with developmental issues makes treating asthma in children a difficult process with age-specific recommendations. For example, traditional pulmonary function testing is difficult to perform in children under 5 years of age, and physical signs of overt respiratory distress are often less prominent in older children and teens compared with infants and younger children. In addition, medication adherence and education, such as inhaled corticosteroids, are challenging. These issues in pediatric asthma treatment elevate the difficulty of inpatient admission during acute asthmatic distress.

## C. Definitions

- **Acute Decompensation** – A clinical symptom of new or worsening signs and symptoms of heart failure.
- **Hemodynamic Instability** – An abnormality of the heart, blood vessels, or other organs resulting in cardiac arrest, obstructive shock, or persistent hypotension.
- **Hypoperfusion** – A supply of O<sub>2</sub> that does not adequately address the needs of cells. Failure of O<sub>2</sub> use leads to anaerobic metabolism which is the source of several detectable products and byproducts.
- **Hypotension** – Decrease in systemic blood pressure below accepted low values.
- **Inotropic/Inotropes** – Medications that increase cardiac contractility, which improves cardiac output (amount of blood pumped by the heart per minute), aiding in maintaining mean arterial pressure and perfusion to the body.
- **Ipratropium** – A bronchodilator medication that dilates the airways of the lungs. Used to treat bronchospasms associated with asthma exacerbations.
- **Metabolic Acidosis** – A disturbance in the homeostasis of blood plasma leading to an increase in hydrogen ion concentration in blood plasma.
- **Peak Expiratory Flow Rate (Peak Flow)** – Maximal flow rate that can be achieved during forceful expiration following full inspiration.
- **Short-Acting Beta Agonist** – First-line medications for acute treatment in asthma symptoms and exacerbations.
- **Vasopressors** – Medications that increase vasoconstriction, which leads to increased systemic vascular resistance (SVR). Increasing SVR leads to increased mean arterial pressure and increased perfusion to organs.

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- **Vital Sign** – Objective measurement of essential physiological functions (eg, temperature, heart rate, respiratory rate, blood pressure) of a living organism.
- **Wheeze** – A high pitched or coarse whistling sound heard in the respiratory airway when one breathes that is a result of a disease-caused airway obstruction.

#### D. Policy

- I. CareSource considers inpatient treatment for asthma in members younger than 18 years medically necessary when 1 or more of the following clinical criteria is met:
  - A. Hemodynamic instability, as indicated by 1 or more of the following:
    1. Vital sign abnormality not readily corrected by appropriate treatment, indicated by 1 or more of the following:
      - a. hypotension that persists despite appropriate treatment (eg, volume repletion, treatment of underlying cause)
      - b. orthostatic hypotension that persists despite appropriate treatment (eg, volume repletion)
    2. Hypotension that is severe, as indicated by 1 or more of the following:
      - a. lactate of 2.0 mmol/L (18 mg/dL) or more secondary to hypotension (ie, hypoperfusion)
      - b. metabolic acidosis (arterial or venous pH less than 7.35) not otherwise explained
      - c. mean arterial pressure less than 65 mm Hg
      - d. IV inotropic or vasopressor medication required to maintain adequate blood pressure or perfusion
  - B. Altered mental status – agitation (that is not developmentally appropriate), drowsy, or confused;
  - C. Ventilatory assistance needed;
  - D. Peak expiratory flow rate less than 25% of predicted or personal best before treatment;
  - E. Peak expiratory flow rate less than 40% of predicted or personal best after treatment;
  - F. Room air oxygen saturation less than 92% at the admitting facility at least 1 hour after completion of initial recommended treatment (ie, 3 doses of a short-acting beta agonist (SABA) with ipratropium for moderate to severe exacerbations administered every 20-30 minutes for 3 doses or continuously for 1 hour and administration of systemic steroids.
  - G. Capillary, venous, or arterial pCO<sub>2</sub> greater than or equal to 42, if a previous elevated pCO<sub>2</sub> baseline has not been established. For members with an elevated pCO<sub>2</sub> at baseline, an elevation of 2 mm Hg or greater above baseline.
  - H. Clinical finding (eg, moderate wheeze, breathlessness, head bobbing, nasal flaring, feeding difficulties, inability to maintain oral hydration, retractions, prolonged expiration) that persists despite observation care (eg, beta-agonist response not sustained for at least 4 hours);
  - I. Peak expiratory flow rate between 40% and 60% of predicted or personal best despite observation care;

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- J. Radiographic evidence of complication requiring inpatient treatment (eg, tension pneumothorax);
- K. No baseline peak flow provided, or patient unable to perform peak flow, and ALL of the following:
  - 1. Finding indicative of a moderate to severe asthma exacerbation, as indicated by 1 or more of the following:
    - a. at least moderate wheeze (eg, wheeze during inspiration and expiration)
    - b. vital sign abnormality sustained despite appropriate treatment as indicated by 1 or more of the following:
      - 01. abnormal heart rate as defined as:
        - (1). < 70/min or > 180/min (for ages ≤ 3 yrs)
        - (2). < 60/min or > 150/min (for ages > 3 to 12 yrs)
        - (3). < 40/min or > 120/min (for ages > 12 yrs)
    - c. at least moderate degree of use of accessory muscles (eg, suprasternal or scalene retractions)
    - d. unable to speak in full sentences (as appropriate for age and development)
    - e. moderate or severe prolongation of expiration
    - f. silent chest (absent or markedly diminished breath sounds)
    - g. feeding difficulties
  - 2. Inadequate response to therapy, as indicated by 1 or more of the following:
    - a. deterioration of symptoms despite bronchodilator therapy
    - b. lack of significant improvement after 1 hour of bronchodilator therapy
    - c. current presentation represents a recurrence within 48 hours of last asthma exacerbation (eg, emergency department or hospitalization)
- L. Change in clinical status requiring escalation of treatment, as indicated by 1 or more of the following:
  - 1. subsequent administration of magnesium sulfate outside of emergency department
  - 2. initiate or increase O<sub>2</sub>
  - 3. increased frequency in bronchodilator therapy
  - 4. acute decompensation (eg, hospital-based rapid response system activated for timely clinical evaluation) requiring consideration of higher level of care

E. Conditions of Coverage

N/A

F. Related Policies/Rules

N/A

G. Review/Revision History

DATE		ACTION
Date Issued	09/25/2024	New policy. Approved at Committee.
Date Revised		

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<b>Date Effective</b>	02/01/2025	
<b>Date Archived</b>		

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Approved ODM 10/31/2024

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*Independent medical review – 09/2024*

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