Child presents with history of asthma* and respiratory symptoms (cough, wheeze, shortness of breath, chest tightness/pain)

Initial assessment**: Vitals: heart rate, temperature, pulse oximetry, weight + respiratory score (RS): respiratory rate, retractions, dyspnea, auscultation

---

**Obtain History**: Triggers, onset, comorbidities, current medication use, history of intubations for asthma, ED visits and hospitalizations for asthma, tobacco exposure

---

**Inclusion**: ≥2 year old with history of asthma* or recurrent wheezing

**Exclusion**: Chronic conditions (Chronic lung disease, congenital/acquired heart disease, upper airway issues, neuromuscular disorder, medically complex child, immune disorders, sickle cell anemia)

---

**Moderate – Severe RS 5 or greater**

Notify provider immediately

Consider activating transport or 911; if so, transfer to ED.

Place on continuous pulse oximetry. Oxygen: titrate to keep pulse oximetry ≥91%

**Meds**

- Dexamethasone 0.6 mg/kg PO if able to max dose 16 mg/day, if unable to tolerate, may give IM***
- Duoneb (albuterol 2.5 mg + Ipratropium 500 mcg per vial)
  - Patients <10 kg: 1 vial
  - Patients >10 kg: 2 vials
- OR
  - Albuterol nebulized
    - Patients <10 kg: 2.5 mg
    - Patients >10 kg: 5 mg
  - + Ipratropium Bromide once
    - Patients <10 kg: 500 mcg
    - Patients >10 kg: 1000 mcg

---

**Mild RS: 1-4**

**Meds**

- Albuterol
  - 4 puffs (for patients <10 kg)
  - 8 puffs (for patients >10 kg)
- Consider
  - Dexamethasone 0.6 mg/kg PO once (max 16 mg/day)
- OR
  - Prednisone/prednisolone 2 mg/kg PO once (max 60 mg/day)

**Assessment**

- Reassign post treatment RS
- Initiate asthma education

---

**REASSESS (clinical staff/provider)**

Every 10-20 min

(RS, heart rate, pulse oximetry)

---

Disclaimer: Pathways are intended as a guide for practitioners and do not indicate an exclusive course of treatment nor serve as a standard of medical care. These pathways should be adapted by medical providers, when indicated, based on their professional judgement and taking into account individual patient and family circumstances.

www.ChildrensOmaha.org/Pathways-Protocols
**DRAFT OUTPATIENT ACUTE ASTHMA EXACERBATION PATHWAY (CONT.)**

**Severe: RS >8**
- Repeat Albuterol nebulized
  - Patients <10 kg: 2.5 mg
  - Patients >10 kg: 5 mg every 10-20 min as clinically indicated
- REASSESS (clinical staff/provider) every 10-20 min (RS, heart rate, pulse oximetry)
- Transport to ED for further stabilization

**Moderate: RS 5-8**
- Repeat Albuterol x 2 doses as clinically indicated:
  - Nebulized:
    - Patients <10 kg: 2.5 mg/dose
    - Patients >10 kg: 5 mg/dose
  - Or MDI:
    - 4 puffs/dose (for patients <10 kg)
    - 8 puffs/dose (for patients >10 kg)
- REASSESS (clinical staff/provider) every 10-20 min (RS, heart rate, pulse oximetry)

**Mild: RS 1-4**
- Medications to consider:
  - Albuterol q 4 hours for 24-48 hours.
  - Repeat dexamethasone in 24 hours or 3-5 day course of prednisone/prednisolone if asthma poorly controlled
- REASSESS (clinical staff/provider) every 10-20 min (RS, heart rate, pulse oximetry)

**Does patient need Q2-4 hour treatments or SpO2 remains <91%**
- YES
  - Consider direct admission or referral to ED for further stabilization
- NO
  - Discharge
    - Asthma education
    - Follow-up within 1-3 days with PCP
    - Consider referral to pulmonary

**Important Information**

- **Severe**
  - Signs of respiratory failure
  - Consider: Epinephrine:
    - <30 kg: 0.15 mg SC or IM
    - >30 kg: 0.3 mg SC or IM
  - Oxygen: titrate to keep Pulse Oximetry ≥91%

- **Does patient need Q2-4 hour treatments or SpO2 remains <91%**
  - YES
    - Consider direct admission or referral to ED for further stabilization
  - NO
    - Discharge
      - Asthma education
      - Follow-up within 1-3 days with PCP
      - Consider referral to pulmonary

**Warning**

- **National Guidelines (2007) definition:**
  - Definition of Asthma: Asthma is a common chronic disorder of the airways that is complex and characterized by variable and recurring symptoms, airflow obstruction, bronchial hyperresponsiveness and an underlying inflammation.

**Possible Diagnostic Testing**

- (Routine testing NOT recommended)
  - Chest x-ray, consider if asymmetric or for first-time wheezing
  - Influenza testing, consider if consistent with influenza-like illness or atypical pneumonia and management will change based on results
  - CBC
  - CBG
  - BMP

**Disclaimer:**

- Pathways are intended as a guide for practitioners and do not indicate an exclusive course of treatment nor serve as a standard of medical care. These pathways should be adapted by medical providers, when indicated, based on their professional judgement and taking into account individual patient and family circumstances.

www.ChildrensOmaha.org/Pathways-Protocols