CHILDREN'S NEBRASKA

OUTPATIENT ACUTE ASTHMA EXACERBATION PATHWAY

**Inclusion:** >2 years old with history of asthma* or recurrent wheezing

**Exclusion:** Chronic conditions
- Chronic lung disease
- Congenital/acquired heart disease
- Upper airway issues
- Neuromuscular disorders
- Immune disorders
- Sickle cell anemia
- Medically complex child

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**Obtain History:**
- Triggers
- Onset
- Comorbidities
- Current medication use
- History of intubations for asthma
- ED visits
- Hospitalizations for asthma
- Tobacco exposure

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**Initial Assessment**: Vitals: heart rate, temperature, pulse oximetry, weight & respiratory score (RS): respiratory rate, retractions, dyspnea, auscultation, & CASI

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**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 ≥ 90%

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

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**Mild RS: 1 – 4**

**Meds**
- Albuterol
  - Patients <10kg: 4 puffs
  - Patients >10kg: 8 Puffs

Consider
- Dexamethasone: 0.6mg/kg PO once; max dose, 16mg/day
- Prednisone/Prednisolone 2mg/kg PO once; max dose 60mg/day

**Assessment**
- Reassign post treatment RS
- Initiate asthma education

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**REASSESS (Clinical staff/provider) every 10-20 minutes**

(RS, heart rate, pulse oximetry)

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*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

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**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.

ChildrensNebraska.org/Pathways

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OUTPATIENT ACUTE ASTHMA EXACERBATION PATHWAY

Severe RS: >8

**Meds**
- Repeat Albuterol nebulized
  - Patients <10kg: 2.5mg
  - Patients >10kg: 5mg every 10-20 minutes as clinically indicated

**REASSESS (clinical staff/provider) every 10-20 minutes (RS, heart rate, pulse oximetry)**

★ Transport to ED for further stabilization★

Moderate RS: 5-8

**Meds**
- Repeat Albuterol x2 doses as clinically indicated
- Nebulized
  - Patients <10kg: 2.5mg/dose
  - Patients >10kg: 5mg/dose
- Or MDI
  - Patients <10kg: 4 puffs/dose
  - Patients >10kg: 8 puffs/dose

**REASSESS (clinical staff/provider) every 10-20 minutes (RS, heart rate, pulse oximetry)**

★ Does patient continue to have moderate symptoms (RS: 5-8) and/or SpO2 remains <92%?★

★ YES → Consider direct admission or referral to ED for further stabilization★

★ NO → Discharge★

Mild RS: 1 – 4

**Medications to Consider:**
- Albuterol every 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 minutes (RS, heart rate, pulse oximetry)**

★ Transport to ED for further stabilization★

**Signs of Respiratory Failure:**
- Consider Epinephrine
  - <30kg: 0.15mg IM
  - >30kg: 0.3mg IM
- Oxygen: Titrate to keep pulse oximetry ≥90%

**Possible Diagnostic Testing:**
- CXR: 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

★ **May substitute prednisone/ prednisolone loading dose of 2mg/kg (Max 60mg) PO for dexamethasone**★

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