# OUTPATIENT ACUTE ASTHMA EXACERBATION PATHWAY

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

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

**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

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

**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

**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

OR
- Prednisone/Prednisolone 2mg/kg PO once; max dose 60mg/day

Assessment
- Reassign post treatment RS
- Initiate asthma education

*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

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

# OUTPATIENT ACUTE ASTHMA EXACERBATION PATHWAY

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

**Severe RS: >8**

*Meds*

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

REASSES (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

REASSES (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%?

NO → Discharge

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

**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

**Signs of Respiratory Failure:**

Consider Epinephrine

- <30kg: 0.15mg IM
- >30kg: 0.3mg IM

Oxygen: Titrate to keep pulse oximetry ≥90%

**(**) Possible Diagnostic Testing:**
(Routine testing **NOT** recommended)
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