

Asthma Exacerbation Algorithms:
 • [Asthma Care Continuum](#)
 • [Ambulatory](#)
 • [Emergency Department](#)
 • [Inpatient](#)

Pt > 2 years of age in the Urgent Care with signs and symptoms of asthma exacerbation

Is there impending/actual respiratory failure?

Please follow Standard Work for activation of emergency response and consider:
 • **Epinephrine** (via Epi-pen) :
 7.5 to < 25 kg: 0.15 mg/0.3mL (1:2000) IM (EpiPen Jr)
 ≥ 25 kg: 0.3mg/0.3mL (1:1000) IM (EpiPen)
 • **Bag and mask ventilation**

Yes

No

Is the exacerbation severe, moderate, or mild?

Severe

Mild

Moderate

• **Oxygen** to achieve SpO₂ ≥ 90%
 • **Place IV**
 • **Start NS fluid bolus 20 mL/kg**
 • **Methylprednisolone IV**
 2 mg/kg (Max: 60 mg)
 • Continuous **Albuterol**** (nebulized)
OR
 • **Albuterol**** (2.5mg) single nebulizer with 500 mcg Ipratropium Bromide: may be repeated q20 min prn x3 doses
[Consider early transfer to higher level of care](#)

• **Oxygen** to achieve SpO₂ ≥ 90%
 • **Dexamethasone**
 0.6 mg/kg PO x1 dose (Max: 12 mg)
 (2nd dose on day 2 may be considered)
OR
Prednisolone/Prednisone PO
 2 mg/kg/day x3-5 days (Max: 60 mg/day)
 • **Albuterol (MDI with spacer)**
 <20 kg: 4 puffs
 ≥20 kg: 8 puffs
OR
 • Continuous **Albuterol**** (nebulized)
OR
 • **Albuterol**** (2.5mg) single nebulizer with 500 mcg Ipratropium Bromide: may be repeated q20 min prn x3 doses
[Consider early transfer to higher level of care](#) if pt continues with moderate status after 3 back-to-back doses of albuterol + ipratropium

• **Oxygen** to achieve SpO₂ ≥ 90%
 • **Systemic steroid if ≥ 2 albuterol treatments are required:**
Dexamethasone
 0.6 mg/kg PO x1 dose (Max: 12 mg)
OR
Prednisolone/Prednisone PO
 2 mg/kg/day x3-5 days (Max: 60 mg/day)
 • **Albuterol (MDI with spacer)**
 <20 kg: 4 puffs
 ≥20 kg: 8 puffs

Is pt improving with albuterol?

No

Yes

Is pt's condition worsening?

Yes

No

Does the pt meet discharge criteria?

Yes

No

[Discharge with home asthma care plan and follow-up with PCP](#)

▶ Continue care as above until discharged
 ▶ [Strongly consider transfer to higher level of care:](#)
 ▪ *Emergency Dept via private vehicle, EMS, or CMH transport depending on clinical situation*
 ▪ *Direct admission to inpatient by EMS or CMH transport only*

Albuterol Dosing:**
 • Continuous albuterol alone:
 0.083% (2.5mg/3mL)
 • If combined with ipratropium 0.5% solution (0.5 mL = 2.5 mg)