DAYTON CHILDREN'S HOSPITAL

CLINICAL PRACTICE GUIDELINES

DISCLAIMER: This Clinical Practice Guideline (CPG) generally describes a recommended course of treatment for patients with the identified health needs. This CPG is not presented and should not be used as a substitute for the advice of a licensed independent practitioner, as individual patients may require different treatments from those specified, and guidelines cannot address the unique needs of each patient. Dayton Children’s shall not be liable for direct, indirect, special, incidental or consequential damages related to the use of this CPG.
Asthma Care Program

Triage: Asthma

Qualifies for asthma CPG?

Yes

Determine Pediatric Asthma Score (PAS)

< 6 Mild

- Albuterol MDI with spacer (6 puffs) 1-3 doses Q20min
- Oral Corticosteroid

Continually reassess and observe up to one hour (with PAS)

Improving?

Yes (PAS <4)

No (PAS ≥4)

Continually reassess at least hourly with PAS or initiate further care as needed.

Improving?

Yes (PAS <4)

Make disposition decision up to 3 hours after corticosteroid administered.

Stable, improved and maintaining PAS <4

Discharge

Rx: Albuterol MDI

Rx: Oral Corticosteroid

Consider controller

Provide Asthma Action Plan

Outpatient Follow up

Worsening (PAS ≥4)

Improving, stable or worse?

See Page 2

≥ 6 Moderate/Severe

- One hour aerosol (albuterol 15mg/ipratropium bromide 1.5g)
- Oral Corticosteroid

Continually reassess at least hourly with PAS or initiate further care as needed.

Improving?

Yes (PAS <4)

No (PAS ≥4)

See Page 2

Exclusion Criteria:

- Diagnosis of bronchiolitis or other cause of wheezing. (See CPG)
- No response to bronchodilators.
- Signs of respiratory failure

Inclusion Criteria:

- Patient is ≥24 months or
- Previously demonstrated reversible airway obstruction after bronchodilator in patients ≥12 months

Respiratory Failure Pathway

- ABC’s
  - Optimize airway
  - Supplemental oxygen
  - Ventilator support
- Epinephrine IM (0.15mg or 0.3 mg prior to IV access)
- 15mg Albuterol with 1.5mg Ipratropium via MiniHeart Neb over 1 hour
- Ipratropium 0.75-1.5mg nebulized within the first hour
- Continuous Albuterol nebulization (15-40 mg/hr)
- Obtain IV access
- Normal saline bolus (20 ml/Kg-max of 1000ml). Preferably before intubation, but should not delay in establishing an airway.
- Magnesium 50mg/kg, max 2g over 20-30 minutes IV
- Solumedrol 2mg/kg (max 125mg) or Dexamethasone 0.6mg/kg (max 16mg)
- Ketamine 0.6-1.0 mg/kg for bronchodilation. 2mg/kg for rapid sequence induction

These patients will be admitted to the PICU after stabilization.
PAS ≥4, persisting moderate to severe symptoms after initial asthma treatment.

- One hour albuterol 15mg aerosol
- Consider IV Magnesium
  - Magnesium 50mg/kg (Max 2g)
  - Place IV
  - 0.9 NS 20ml/kg bolus IV

Continually reassess at least hourly with PAS or initiate further care as needed, with goal to make disposition decision no later than one hour after last albuterol completed or up to three hours after corticosteroids given.

Yes (PAS <4)

- Discharge
- Rx: Albuterol MDI
- Rx: Oral Corticosteroid
- Consider controller
- Provide Asthma Action Plan
- Outpatient Follow up

No (PAS ≥8), Severe

- No (PAS 4-7)
- New Continuous Albuterol 15 mg/hr
- Admit to Specialty Pediatrics or Pulmonary Medicine
- 2 hour observation in ED is not required.
- Albuterol MDI 6 puffs Q2H x3, Q1H pm
- Consider electrolytes and CXR

- Admit to PICU

Improved?