Guideline for Asthma Management: Urgent Care

Inclusion: ≥ 18months Old Presents with Asthma Symptoms, Otherwise Healthy, Patient in Acute Asthma Exacerbation

≥ 18 month old patient presents with asthma symptoms (wheezing, cough, SOB, increased WOB)

Literature shows CXR is **not** routinely indicated in the care of acute asthma exacerbation

Give Steroids X1 if not already given[2]

CRS Score and Assessment
Oxygen as needed to maintain SpO2>90%

Purple shaded area represents CAREGIVER INITIATED PROTOCOL FOR ASTHMA #6-03

CRS 0-2

- Albuterol via intermittent Nebulizer[1]
- Repeat CRS 15 min post treatment

CRS 3-5

- Albuterol via intermittent nebulizer (may give q20min up to 3 treatments)[1]
- *Add Ipratropium Bromide[1]; May repeat x1*
- Give steroids X1 dose[2]
- Consider continuous HR and SpO2 monitoring
- Repeat CRS 15-30 min post treatment

CRS 6-8

- Albuterol via intermittent nebulizer give 3 treatments back to back[1]
- *Add Ipratropium Bromide[1]; Repeat x1*
- Give steroids x1 dose[2]
- Continuous HR and SpO2 monitoring
- Repeat CRS 30 min post treatment
- Make NPO

CRS ≥9

- Albuterol via intermittent nebulizer[1]:
  - Give 3 treatments back to back
  - May continue q15-20 min as needed until patient is transported
- *Add 0.5mg Ipratropium Bromide[1]; Repeat x1 (Max Total dose 1mg)*
- Start IV
- Give steroids[2]
- Consider IVF bolus
- Continuous HR and SpO2 monitoring
- Repeat CRS 30 min post treatment
- Make NPO
- Transfer to hospital

CRS Score and Assessment

CRS Score and Assessment

Clinically Improved?

NO

YES

Clinically improved?

NO

Repeat treatment per CRS score maximum 3 treatments, then consider transfer to ED

YES

CRS ≤3?

YES

NO

Meets Discharge Criteria[3]?

NO

YES

Discharge Home[4]

Transfer to Emergency Department

DEFINITIONS

CRS: Clinical Respiratory Score

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Medication Dosing

[1]Respiratory Medications

- Albuterol via intermittent nebulizer:
  - <15 kg use 2.5mg
  - ≥15 kg use 5mg
- Ipratropium Bromide 0.5mg via intermittent nebulizer, may repeat x1 (max dose 1mg)

[2]Steroid Dosing

- **Dexamethasone tablets** PO x1 (based on 0.6mg/kg PO) (Max dose 16mg)
  - <12kg: 4mg (1 tablet)
  - 12 to <15kg: 8mg (2 tablets)
  - 15 to <25kg: 12mg (3tablets)
  - ≥25kg: 16mg (4 tablets)
  - Do not give if patient had a dose in the last 24 hours
  - Consider Steroid taper if the patient has had 2 courses of steroids in the past 60 days
- **Dexamethasone** 0.6mg/kg IM (Max dose 16 mg) (Give steroids PO unless patient is vomiting)
- **Methylprednisolone** 2mg/kg IV x1 if CRS ≥9 or patient not tolerating PO (max dose 60mg)

Additional Medications

- **Epinephrine** (Concentration 1mg/mL) 0.01mg/kg IM (Max dose 0.5mg)

Transfer Criteria

Consider Transfer to Hospital if:

- CRS ≥ 4 after response to 2-3 treatments
- O2 requirement to keep SpO_2 > 90%
- Clinical Hypoxia
- Unable to manage patient at home

Consider Air Transport if:

- Acute Respiratory Failure
- CRS≥9 after 2-3 treatments
- FiO2 ≥50%
- tPEWS =7 or score of 3 in any of categories Airway, Circulation, or Disability
- Use CHOA Air Transport or call 911 as appropriate

Discharge

[3]Discharge Criteria

- CRS ≤3
- Breathing easy with good air exchange
- SpO_2 >90% on room air consistently
- Family able to manage patient at home
- Able to maintain SpO_2 >90%, RR, WOB, through feeding/activity

Discharge Risk Assessment

Risk Screen: (Consider transfer and/or Care Concern Call)

- Hospitalized two or more times in past 6 months, history of ICU/intubation
- >3 ED visits in past 6 months
- 2 or more canisters of albuterol in past 6 months
- Failure of outpatient therapy (already on q4 hour nebs or oral steroids >48 hours)
- Direct exposure to tobacco smoke
- Consider Subspecialty Referral if:
  - Hospitalized 2 or more times in the past year
  - >3 ED/UC visits in the past 12 months
  - 2 or more courses of oral steroids in the past 2 months
  - 2 or more canisters of albuterol in the past 6 months

[4]Discharge Orders

Discharge Orders:

- Follow Up with PCP/ Subspecialist
- Education:
  - Asthma Basics (Asthma Management Plan)
  - MDI Teaching if applicable
  - DPI Instruction

Discharge Medications:

- Albuterol MDI with spacer
  - 4 puffs QID times 2 days and q4 hours prn cough/wheezing/ symptoms
- Inhaled steroids
  - Fluticasone propionate (Flovent) 44 mcg/puff - 2 puffs BID x1 canister (no refills) (For patients <12 years old)
  - Budesonide (Pulmicort respules) 0.5mg/2ml inhalation solution- BID via nebulizer
  - Fluticasone furoate (Arnuity Ellipta) 100 mcg/actuation- 1 puff daily (For patients ≥12 years old)
- Oral Steroid: Dexamethasone PO x1 24 hours after first dose
  - <12kg: 4mg PO
  - 12 to <15kg: 8mg PO
  - 15 to <25kg: 12 mg PO
  - ≥25kg: 16mg PO

  (Max dose 16mg)
  - Consider steroid taper if the patient has had 2 courses of steroids in the past 60 days