

# Pediatric Respiratory Distress

2.3P

## Asthma, Bronchiolitis, Croup

# E

### ASTHMA, BRONCHIOLITIS, CROUP - EMT STANDING ORDERS

- Routine Patient Care.
- Attempt to keep oxygen saturation between 94% - 99%
- Observe for fatigue, decreased mentation, and respiratory failure.
- Assist the patient with his/her metered dose inhaler (MDI): 4 - 6 puffs.
  - May repeat every 5 minutes, as needed.
  - MDI containing either albuterol, levalbuterol, or a combination of albuterol/ipratropium bromide.
- For patients  $\leq 2$  who present with increased work of breathing and rhinorrhea, provide nasal suctioning with saline drops and bulb syringe; no more than 2 attempts.

#### Consider differential diagnosis:

- Asthma
- Pneumonia (See CPAP for respiratory failure)
- Bronchiolitis
- Anaphylaxis (See Anaphylaxis Protocol 2.)
- Croup
- Sepsis (See Sepsis Protocol)
- Foreign body airway obstruction

### ASTHMA - ADVANCED EMT STANDING ORDERS

# A

- Consider Unit dose DuoNeb **OR** albuterol 2.5 mg and ipratropium bromide 0.5 mg via nebulizer.
  - Consider additional DuoNeb, may repeat every 5 minutes (3 doses total).
- Consider albuterol 2.5 mg via nebulizer every 5 minutes, as needed.
- For patients who do not respond to treatments, or for impending respiratory failure:
  - [Consider CPAP 5.4 Procedure.](#)

Wheezing  $\geq 2$  years or history of asthma

YES

NO

### ASTHMA - PARAMEDIC STANDING ORDERS

# P

- Consider:
- Dexamethasone 0.6 mg/kg PO/IM/IV (PO preferred), maximum 10 mg **OR**
  - Methylprednisolone 2 mg/kg IV/IM, maximum 125 mg.
- For patients who do not respond to treatment or for impending respiratory failure consider:
- Magnesium sulfate 40 mg/kg in 100ml 0.9% NaCl IV over 20 minutes.
  - Epinephrine:
    - If  $< 25$  kg, epinephrine (1 mg/mL) 0.15 mg IM, lateral thigh preferred.
    - If  $> 25$  kg, epinephrine (1 mg/mL) 0.3 mg IM, lateral thigh preferred

Wheezing  $< 2$  years old

YES

NO

### BRONCHIOLITIS - PARAMEDIC STANDING ORDERS

# P

- For patients who do not respond to suctioning or for impending respiratory failure consider:
- Nebulized epinephrine (1 mg/mL) 3 mg (3 mL) in 3 mL 0.9% NaCl.

History of stridor or barking cough

YES

### CROUP - PARAMEDIC STANDING ORDERS

# P

- Consider:
- Dexamethasone 0.6 mg/kg PO/IM/IV (PO preferred) maximum 10mg.
- Croup with stridor at rest:
- Nebulized epinephrine (1 mg/mL) 3 mg (3 mL) in 3 mL 0.9% NaCl.



- Respiratory distress in children must be promptly recognized and aggressively treated. Respiratory arrest is the most common cause of cardiac arrest in children.
- Child with a "silent chest" may have severe bronchospasm with impending respiratory failure.

Procedure Continues

Medical Protocol 2.3P

# 2.3P Pediatric Respiratory Distress

## Asthma, Bronchiolitis, Croup DRAFT



Procedure Continued

### PEARLS

- The IV formulation of dexamethasone may be given by mouth.
- For suspected epiglottitis, transport the patient in an upright position and limit your assessment and interventions.

### Bronchiolitis

- Incidence peaks in 2-6 month old infants.
- Frequent history of low-grade fever, runny nose, and sneezing.
- Signs and symptoms include: tachypnea, rhinorrhea, wheezes and / or crackles.

### Croup

- Incidence peaks in children over age 6 months.
- Signs and symptoms include: hoarseness, barking cough, inspiratory stridor, signs of respiratory distress.
- Avoid procedures that will distress child with severe croup and stridor at rest.

### Pneumonia

- Signs and symptoms include: tachypnea, fever, intercostal retractions, cough, hypoxia and chest pain.

Tachypnea in children is defined as:

- < 2 months: 60 bpm
- 2-12 months: 50 bpm
- 1-5 years: 40 bpm
- >5 years: 20 bpm