

SECTION: PM-2

PROTOCOL TITLE: PEDIATRIC RESPIRATORY EMERGENCIES

REVISED: October 15, 2014

GENERAL COMMENTS: This protocol covers a wide variety of pediatric respiratory emergencies, particularly asthma, respiratory infections, and croup.

BLS SPECIFIC CARE: See *General Pediatric Care Protocol PM-1*

Wheezing

- Assist the patient (or family) with his prescribed “rescue” inhaler. Use a spacer if the patient is prescribed one and has it available
 - Assisted Inhaler: 2 puffs or number of puffs as prescribed by the patient’s MD
 - Repeat every 5-10 minutes or as prescribed by the patients MD
 - Use a spacer if available
 - Hold for HR >200/min
- As an alternative, the patient (or his family) may be allowed to use their own nebulized medication
 - Hook up oxygen in lieu of a room air “condenser” and run at 6-8 LPM with the patients Hand Held Nebulizer (HHN). The patient (or family) must prepare it themselves
- Determine patient’s color category on length based resuscitation tape (Broselow Tape)

Stridor

- Determine patient’s color category on length based resuscitation tape (Broselow Tape)
- Allow patient to remain in his/her position of comfort as they have assumed this position to maximize the effectiveness of their own respirations
- Avoid agitating the patient as doing so can cause further deterioration of the respiratory status

ILS SPECIFIC CARE: See *General Pediatric Care Protocol PM-1*

ALS SPECIFIC CARE: See *General Pediatric Care Protocol PM-1*

Wheezing

- Nebulizer
 - Albuterol 2.5 mg (0.83% in 3ml)/ Atrovent 0.5 mg (0.02% in 2.5 ml) nebulized
 - May use DuoNeb preparation for initial Neb.
 - Repeat as needed with Albuterol Only
 - Do not dilute

- Epinephrine 1:1000 for patients in severe distress
 - IM 0.01 mg/kg for severe refractory bronchospasm
- Magnesium Sulfate (if worsening after above medications)
 - 25-50 mg/kg in 100 ml infused over 2-5 min
 - Max 2 g

Corticosteroid Therapy

- Solu-Medrol
 - 1-2 mg/kg IVP

Stridor

- Epinephrine Neb (first line)
 - 3 mg (3 ml) epinephrine 1:1,000 nebulized diluted with 3ml NS for a total of 6 ml
 - Repeat x 2 as needed. Allow 2 minutes between doses.
- Epinephrine 1:1000 for patients in severe distress
 - IM 0.01 mg/kg for severe refractory stridor

All respiratory emergency patients shall have continuous ECG monitoring.

PHYSICIAN PEARLS:

The predominant cause for stridor in younger children is acute viral laryngotracheobronchitis (CROUP); Albuterol and Atrovent provide no substantial benefits due to the causation for this condition. Although less common, epiglottitis should be considered as a life threatening cause of stridor however similarly, Albuterol and Atrovent will not provide benefit to these patients. As noted above, nebulized epinephrine is the first line treatment for field personnel for these conditions.

For severe respiratory distress (in the absence of congenital heart defects), normal saline fluid boluses should be administered early (after first nebulized treatment as beta agonists and epinephrine can cause increased tachycardia and secondary hypotension. Additionally, with tachypnea, patients can manifest dehydration secondary to insensible losses of respiration and from potential underlying illness. Therefore fluid boluses should be administered liberally with these patients.