

SECTION: PM-2

PROTOCOL TITLE: PED RESPIRATORY EMERGENCIES

REVISED: January 28, 2010

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*

Bronchodilators

- 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)
- Assist the patient with his prescribed “rescue inhaler.” Use a spacer if the patient is prescribed one and has it available
 - Assisted Inhaler: 2 puffs or a specific number of puffs as prescribed by patient’s MD
 - Repeat every 5-10 minutes or as prescribed by patient’s MD.
 - Discontinue if heart rate > 200 bpm
- As an alternative, the patient may be allowed to use his/her own nebulized medication. The QRU will offer to hook up oxygen in lieu of a room air “condenser” and run at 6-8 lpm with the patient’s hand held nebulizer (HHN). The patient must prepare it him/herself

Croup & Epiglottitis

- 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

Protocol PM-2

PED RESPIRATORY EMERGENCIES

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

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

- Assess and treat underlying disorder.

Bronchodilators

- Nebulizer
 - Albuterol 2.5 mg (0.83% in 3cc)/ Atrovent 0.5 mg (0.02% in 2.5 cc) nebulized
 - May use DuoNeb preparation for initial Neb.
 - Repeat as needed with Albuterol Only
 - Do not dilute
- Magnesium Sulfate
 - 25-50 mg/kg in 100 cc infused over 2-5 min
 - Max 2 g
- Epinephrine 1:1000 for patients in severe distress
 - IM 0.01 mg/kg for severe refractory bronchospasm

Corticosteroid Therapy

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

Croup & Epiglottitis

- Epinephrine Neb (first line)
 - 5 mg (5 cc) epinephrine 1:1,000 nebulized and undiluted

PHYSICIAN PEARLS:

For cases of acute viral laryngotracheobronchitis (CROUP), albuterol and atrovent provide no substantial benefits due to the causation for this condition. As noted above, nebulized epinephrine is the first line treatment for Field personnel for this condition.

Pediatric patients with substernal and intercostal retractions are key findings of severe distress. If these findings are present, the patient is sick and in need of immediate treatment and follows up in an emergency department. Providers should ensure adequate oxygenation and ventilation at all times and is ready to support ventilation with BVM as needed.

Although corticosteroids are not first line treatment for respiratory disorders, administration in the early stages of treatment is beneficial. The AHA notes that *“...a comprehensive review of the literature by the Cochrane approach (including pediatric and adult patients) determined that early use of systemic steroids reduced rates of admission to the hospital”* and that *“...providers should administer steroids as early as possible to all asthma patients...”*

The anti-inflammatory effects are delayed but highly valuable in the aspect of continuing treatment. These should be administered quickly after emergency treatments are performed for patients that would benefit from this treatment modality.

Protocol
PM-2

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