Pediatric Respiratory Distress/Bronchospasm

For asthma exacerbations, epiglottis and any bronchospasms/wheezing not from pulmonary edema

**History**
- Asthma
- COPD – chronic bronchitis, emphysema
- Home treatment (e.g., oxygen or nebulizer)
- Medications (e.g., Theophylline, steroids, inhalers)
- Frequency of inhaler use

**Signs and Symptoms**
- Shortness of breath
- Pursed lip breathing
- Decreased ability to speak
- Increased respiratory rate and effort
- Wheezing or rhonchi/diminished breath sounds
- Use of accessory muscles
- Cough
- Tachycardia

**Differential**
- Asthma
- Anaphylaxis
- Foreign body aspiration
- Partial airway obstruction (i.e. epiglottitis)
- Croup
- Pleural effusion
- Pneumonia
- Pulmonary embolus
- Pneumothorax
- Cardiac (MI or CHF)
- Pericardial tamponade
- Hyperventilation
- Inhaled toxin (e.g., carbon monoxide, etc.)

**Breathing adequate?**
- Yes
- No

**Respiratory Arrest/Respiratory Failure**

- Apply Oxygen to maintain goal SpO₂ ≥ 92%
- Airway support
- Cardiac monitor

**Consider, Establish IV/IO**

- Other systemic symptoms
  - Anaphylaxis

**Wheezeing**

- Consider, CPAP
  - If greater than 1 year old
    - Albuterol or Albuterol MDI with spacer
    - or
    - Levalbuterol
    - Use length-based tape; refer to dosing guide
  - Decrease LOC or unresponsive to Albuterol/Levalbuterol, Epinephrine 1:1,000 IM
    - Use length-based tape; refer to dosing guide

**Stridor**

- Epinephrine 1:1,000 nebulized
  - Use length-based tape; refer to dosing guide

**Barking cough without stridor**

- Normal Saline nebulized
  - Use length-based tape; refer to dosing guide

**For suspected inhalation injury**

- Inhalation Injury

- Notify receiving facility.
  - Consider Base Hospital for medical direction

**Effective April 2023**

**Treatment Protocol PR03**

**Effective November 2018**
Pearls

• A silent chest in respiratory distress is a pre-respiratory arrest sign.
• Diffuse wheezing in patients < 1 year, it is almost always bronchiolitis, not asthma. For these patients, suctioning and supplemental oxygen are appropriate treatments.
• Pulse oximetry monitoring is required for all respiratory patients.

Factors Affecting EtCO₂

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