

**SAGINAW VALLEY  
MEDICAL CONTROL AUTHORITY  
PRACTICE PARAMETER**

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**PEDIATRIC RESPIRATORY DISTRESS**

**I. Assessment**

A. Respiratory Distress is indicated by the following findings:

1. alert, irritable, anxious
2. stridor
3. audible wheezing
4. respiratory rate faster than normal for age
5. intercostal retractions
6. nasal flaring
7. neck muscle use
8. central cyanosis that resolves with oxygen administration
9. mild tachycardia
10. able to maintain sitting position(children older than 4 months)

B. Respiratory failure involves the findings above with any of the following additions or modifications:

1. sleepy, intermittently combative, or agitated
2. increased respiratory effort at sternal notch
3. marked use of accessory muscles
4. retractions, head bobbing, grunting
5. central cyanosis
6. marked tachycardia
7. poor peripheral perfusion
8. decreased muscle tone

C. Respiratory arrest involves the findings above with any of the following additions or modifications:

1. unresponsive to voice or touch
2. absent or shallow chest wall motion
3. respiratory rate slower than 10 breaths per minute
4. weak or absent pulses
5. bradycardia or asystole
6. limp muscle tone
7. **unable to maintain sitting position (children older than 4 months)**

**FIRST RESPONDER**

**I. Management**

A. Allow patient a position of comfort

1. Severe respiratory distress

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- a. Place patient in sitting or upright position as appropriate for age.
- B. Obtain pulse oximetry, if available.
- C. Establish and maintain airway, provide oxygenation and support ventilation as needed.
  1. Administer high flow oxygen via non-rebreather mask
    - a. If this upsets child, hold mask as near to face as possible.
    - b. Parents may be able to do this with less trauma to child.
- D. Assess circulation and perfusion by measuring heart rate and observing skin color and temperature, capillary refill time, and the quality of central and peripheral pulses. Blood pressure should be measured in children older than three.
- E. Auscultate Lung Sounds
  1. Clear(vesicular)<sup>2</sup>
  2. Crackles(rales)<sup>3</sup>
  3. Wheezes<sup>4</sup>
  4. Asymmetrical<sup>5</sup>
- F. Determine the type of respiratory problem involved
  1. Complete Obstruction
    - a. Go to Foreign Body Airway Obstruction Parameter.
  2. Partial Obstruction/Bronchospasm<sup>6</sup>
    - a. Also refer to Obstructed Airway Procedure.
    - b. In suspected epiglottitis<sup>7</sup>, **MINIMIZE AGITATION.**
    - c. Consider anaphylaxis(see Allergic Reaction/Anaphylaxis Protocol).
  3. Clear Breath Sounds
    - a. Consider these possible underlying conditions
      1. Hyperventilation
      2. Metabolic problems

**BASIC LIFE SUPPORT**

4. Arrange for ALS Intercept.

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5. Initiate transport toward ALS intercept in **POSITION OF COMFORT**(sit in upright or tripod position appropriate for age), if transporting unit.

**ADVANCED LIFE SUPPORT**

6. Monitor **EKG**.
7. **IV/IO NORMAL SALINE @ TKO**

**NOTIFY RECEIVING FACILITY**

8. Crackles (rales)
  - a. Suspected cardiac(i.e. pulmonary edema)
  - b. Suspected non-cardiac (i.e. pneumonia)
    1. Obtain temperature
9. Wheezes (i.e. asthma)
  - a. Consider anaphylactic reaction: See Allergic Reaction/Anaphylaxis Protocol.
  - b. Administer **ALBUTEROL 2.5mg pre-diluted in 3cc SOLUTION VIA NEBULIZER over a 10-15 minute period.**<sup>9</sup>
    1. Maybe repeated above dose if no improvement.
10. Asymmetrical breath sounds
  - a. If evidence of tension pneumothorax and patient unstable, consider **DECOMPRESSION**.

**CONTACT MEDICAL CONTROL**

- G. Possible orders post radio contact (asthma, epiglottitis, croup, bronchiolitis):
  1. Consider **Epinephrine** 1:1,000 at 0.01 mg/kg (maximum 0.3mg) or terbutaline at 0.01 mg/kg (maximum 0.4 mg) SQ.

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2. Consider **Ipratropium bromide 500 mcg via nebulizer over a 10-15 minute period.** Ipratropium bromide may be mixed with albuterol and the two drugs administered simultaneously.
3. Albuterol 2.5mg, maybe repeated @ 2.5mg if no improvement

H. Consider **INTUBATION** , if indicated.

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<sup>2</sup> Soft, low pitched, “sighing” sounds.

<sup>3</sup> Fine crackling sounds, similar to the sound of hair being rolled between your fingers. Indicate fluid in the lungs and minor alveolar obstruction.

<sup>4</sup> Prolonged, higher pitched expiratory sounds, reflect airway narrowing. Generally suggest bronchial constriction and asthma.

<sup>5</sup> Unequal breath sounds. Absent or diminished breath sounds on one side.

<sup>6</sup> Refers to but not limited to the following: croup, epiglottitis, foreign body, anaphylaxis. Signs and symptoms may include but are not limited to absent breath sounds, tachypnea, intercostal retractions, stridor or drooling, choking, bradycardia or cyanosis.

<sup>7</sup> Bacterial infection of the epiglottis, which is the flap of cartilage that protects the airway during swallowing. During the infection process, the epiglottis becomes swollen and cherry red. It usually occurs in children older than age four and is a serious medical emergency.

<sup>9</sup> Nebulizer treatment may be initiated prior to vascular access. Do not delay nebulizer treatment.

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Medical Director

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