

	<b>COUNTY OF SACRAMENTO</b> EMERGENCY MEDICAL SERVICES AGENCY	Document #	9003.15
	<u>PROGRAM DOCUMENT:</u>  <b>Pediatric          Respiratory Distress: Reactive Airway          Disease, Asthma, Bronchospasm, Croup, or          Stridor</b>	Initial Date:	04/25/95
		Last Approval Date:	09/12/19
		Effective Date:	07/01/20
		Next Review Date:	09/01/21

\_\_\_\_\_  
 Signature on File  
 EMS Medical Director

\_\_\_\_\_  
 Signature on File  
 EMS Administrator

**Purpose:**

- A. To serve as the treatment standard for pediatric patients assessed to have respiratory distress and a history of asthma, bronchospasm, or reactive airway disease.
- B. To serve as a treatment standard for pediatric patients assessed to have respiratory distress with no history of asthma, bronchospasm, or reactive airway disease but are wheezing and tachypneic.
- C. To serve as a treatment standard for pediatric patients assessed to have slow onset of respiratory distress, barking cough, with a history of fever and respiratory stridor.

**Authority:**

- A. California Health and Safety Code, Division 2.5
- B. California Code of Regulations, Title 22, Division 9

**Protocol:**

Treat a single problem; commit yourself to a single assessment and if in doubt contact medical control for advice.

- A. **Asthma/Bronchospasm - Mild or Moderate:**  
 Patient present with intercostal retractions, nasal flaring and capillary refill > 2 seconds.

<b>BLS</b>
1. Supplemental O2 as necessary to maintain SpO2 ≥ 94%. Use lowest concentration and flow rate of O2 as possible. 2. Assess vital signs, including SpO2 when available. 3. Assess lung sounds. 4. Consider Noninvasive Ventilation (NIV) when appropriate, for moderate to severe distress (patient's ≥ twelve (12) years of age only). 5. Begin immediate transport.
<b>ALS</b>
1. <b>Albuterol:</b> 2.5 mg (3 ml unit dose): <ul style="list-style-type: none"> <li>• Nebulizer (HHN), or mask; reassess after the first treatment. May be repeated as needed, based on reassessment.</li> </ul> 2. Pulse Oximetry, when available, may be used to titrate oxygen saturation to a SpO2 ≥ 94%. 3. Cardiac monitor. 4. Consider vascular access.

- B. Asthma/Bronchospasm - Condition is severe:** Immediate transport.  
 Patient is unable to speak, patient may have decreased/elevated pulse and/or decreased/elevated blood pressure; mental status is altered.

<b>BLS</b>
<ol style="list-style-type: none"> <li>1. Basic Life Support (BLS) airway interventions as needed.</li> <li>2. Supplemental O<sub>2</sub> as necessary to maintain SpO<sub>2</sub> ≥ 94%. Use lowest concentration and flow rate of O<sub>2</sub> as possible.</li> <li>3. Assess vital signs, including SpO<sub>2</sub> when available.</li> <li>4. Consider NIV, when appropriate, for moderate to severe distress (patient's ≥ twelve (12) years of age only).</li> <li>5. Consider administering Epinephrine auto-injector if needed:               <ul style="list-style-type: none"> <li>• &gt; 30 Kg Epinephrine Auto Injector 0.3 mg IM. No repeat. Record time of injection.</li> <li>• 15-30Kg Pediatric Epinephrine Auto Injector 0.15 mg IM. No repeat. Record time of injection.</li> </ul> </li> <li>6. Begin immediate transport in position of comfort.</li> </ol>
<b>ALS</b>
<ol style="list-style-type: none"> <li>1. Airway management as per PD# 8837- Pediatric Airway Management.</li> <li>2. Pulse Oximetry, when available, may be used to titrate oxygen saturation to a SpO<sub>2</sub> ≥ 94%.</li> <li>3. <b>Albuterol:</b> 5 mg via HHN, mask or BVM.</li> <li>4. <b>Epinephrine:</b> 0.01 mg/Kg of 1:1,000 (1 mg/ml) solution Intramuscular (IM) up to a maximum dose of 0.3 ml.</li> <li>5. Initiate vascular access. Titrate to a minimal Systolic Blood Pressure (SBP) for patient's age. Vascular access shall not take precedence over administration of Albuterol or Epinephrine.</li> <li>6. Cardiac Monitor.</li> </ol>

- C. Croup/Stridor - Condition is mild to moderate:**  
 Slow onset of mild to moderate respiratory distress, barking cough, fever and respiratory stridor. Unilateral stridor may be due to bronchial foreign body.

<b>BLS</b>
<ol style="list-style-type: none"> <li>1. Basic Life Support (BLS) airway interventions as needed.</li> <li>2. Supplemental O<sub>2</sub> as necessary to maintain SpO<sub>2</sub> ≥ 94%. Use lowest concentration and flow rate of O<sub>2</sub> as possible.</li> <li>3. Assess vital signs, including SpO<sub>2</sub> when available.</li> <li>4. Begin immediate transport in position of comfort.</li> </ol>
<b>ALS</b>
<ol style="list-style-type: none"> <li>1. Saline: 3ml HHN reassess after first treatment.</li> </ol>

**D. Croup/Stridor - Condition is severe:**

Patient is unable to speak/ patient may have decreased/elevated pulse and/or decreased/elevated blood pressure/ mental status is altered. Unilateral stridor may be due to bronchial foreign body.

BLS
<ol style="list-style-type: none"><li>1. Basic Life Support (BLS) airway interventions as needed.</li><li>2. Supplemental O2 as necessary to maintain SpO2 <math>\geq</math> 94%. Use lowest concentration and flow rate of O2 as possible.</li><li>3. Assess vital signs, including SpO2 when available.</li><li>4. Begin immediate transport in position of comfort.</li></ol>
ALS
<ol style="list-style-type: none"><li>1. Airway management as per PD# 8837</li><li>2. Pulse oximetry, when available, may be used to titrate oxygen saturation to SpO2 <math>\geq</math> 94%.</li><li>3. <b>Epinephrine:</b> 0.01 mg/Kg of 1:1,000 (1mg/ml) solution IM up to a maximum dose of 0.3 ml.</li><li>4. Initiate vascular access. Titrate to a minimal Systolic Blood Pressure (SBP) for patient's age. Vascular access shall not take precedence over administration of Epinephrine.</li><li>5. Cardiac Monitoring.</li></ol>

**Cross Reference:** Pediatric Airway Management: PD# 8837  
Noninvasive Ventilation (NIV): PD# 8829