

This protocol will focus on patients with medical causes as a source of their respiratory distress. Management of patients with dyspnea associated with trauma is not covered in this protocol. Obtain and document a pulse oximetry reading and monitor ETCO₂ waveform capnography on all patients treated under this protocol.

A. Acute Bronchospasm (Asthma) [Lower Airway]

BLS

1. Initial Assessment/Care [Protocol 01P](#).
2. Position patient sitting upright to improve effort of breathing.
3. Administer supplemental oxygen as needed.

ALS

4. Obtain and continuously monitor:
 - a) Pulse Oximetry
 - b) ETCO₂ Waveform Capnography
5. For acute bronchospasms (wheezes), administer:
 - a) < 10 kg, administer **Albuterol 1.25 mg mixed with Atrovent 0.25 mg** (volume should be approximately 3 mL) via a nebulizer.
 - b) > 10kg, administer **Albuterol 2.5 mg mixed with Atrovent 0.5 mg** via a nebulizer.
 - c) May be repeated once if necessary.
6. If indicated by continued distress, administer **Albuterol** [Procedure 02](#)
 - a) ≤ 10 kg, administer **Albuterol 1.25 mg** (1.5 mL) diluted in 2mL Normal Saline.
 - b) > 10 kg, administer **Albuterol 2.5 mg** (3 mL) via a nebulizer.
7. Consider the need for assisted ventilation and advanced airway.
8. If severe respiratory distress/dyspnea, administer **Magnesium Sulfate 40 mg/kg** (max dose of 2 gm) mixed in a 50 mL of NS over 20 minutes IV [Medication 22](#).

MCP

5. **Epinephrine 1:1,000 (1 mg/mL) 0.01 mg/kg (0.01 mL/kg)** IM. (Maximum dose of 0.3 mg)

B. Stridor – Croup [Upper Airway]

Stridor, a noisy upper airway that is associated with a partial airway obstruction in patients that can be a result of a variety of causes.

Croup is a viral disease that includes edema, inflammation, and the narrowing of the larynx and/or trachea and usually affects infants and toddlers. Most children will present with cold symptoms for several days and then followed by the development of a “seal-like or barking cough,” stridor, and different acuities in respiratory distress.

BLS

1. Initial Assessment/Care [Protocol 01P](#).
2. Avoid agitating a child suspected with signs/symptoms of stridor, calm and reassure and place the patient in a position of comfort.
3. Administer nebulized saline via a nebulizer in a blow-by method as an alternative to humidified oxygen to provide for comfort.

ALS

4. For croup patients (presenting with a seal-like cough/bark), administer **3 mg (3 mL) of Epinephrine 1:1,000 (1 mg/mL) in 3 mL of NS** via a nebulizer.

C. Stridor – Epiglottitis [Upper Airway]

Epiglottitis is the inflammation of the epiglottis usually caused by bacterial infections that lead to upper airway obstructions in children. These bacterial infections tend to progress rapidly causing severe respiratory compromise that is developed in a period over hours. Patients will develop fever and as infection progresses, a child may show behaviors such as sitting upright, with head and neck leaning forward. The bacterial infections to the upper airway usually affect pediatrics age > 12 months and will appear ill, present with symptoms of pain upon swallowing, and drooling may be noted and often referred to as the 3Ds: Drooling, Dysphagia, and Distress.

BLS

1. Initial Assessment/Care [Protocol 01P](#).
2. Avoid agitating a child suspected with signs/symptoms of stridor, calm and reassure and place the patient in a position of comfort.

For suspected [epiglottitis](#), avoid agitating the child and allow child to remain in the position of comfort and do not examine the epiglottis. Do not force an oxygen delivery mask on these patients, the blow-by oxygen administration technique is recommended as necessary. Avoid any procedure that will agitate these patients.



3. Administer nebulized saline via a nebulizer in a blow-by method as an alternative to humidified oxygen to provide for comfort.

ALS

4. Provide airway management as necessary [Protocol 7P](#).

NOTE: Nebulized Epinephrine is contraindicated for patients with suspected epiglottitis.

D. Pulmonary Edema

BLS

1. Initial Assessment/Care [Protocol 01P](#).
2. Position patient sitting upright to improve effort of breathing.
3. Administer supplemental oxygen as needed.

ALS

4. Provide airway management as necessary [Protocol 7P](#).

MCP

5. Contact MCP for direction.