Pediatric Asthma
Respiratory Distress

History
- Time of onset
- Possibility of foreign body
- Past Medical History
- Medications
- Fever / Illness
- Sick Contacts
- History of trauma
- History / possibility of choking
- Ingestion / OD
- Congenital heart disease

Signs and Symptoms
- Wheezing / Stridor / Crackles / Rales
- Nasal Flaring / Retractions / Grunting
- Increased Heart Rate
- AMS
- Anxiety
- Attentiveness / Distractibility
- Cyanosis
- Poor feeding
- JVD / Frothy Sputum
- Hypotension

Differential
- Asthma / Reactive Airway Disease
- Aspiration
- Foreign body
- Upper or lower airway infection
- Congenital heart disease
- OD / Toxic ingestion / CHF
- Anaphylaxis
- Trauma

	Pediatric Airway Protocol(s) 3, 5 - 7 ***as indicated***
	Pediatric Reaction / Anaphylaxis Protocol PM 1 ***as indicated***
B	12 Lead ECG Procedure CSP 1
A	IV / IO Access Protocol UP 6 ***if indicated***
P	Cardiac Monitor

Following Assessment

WHEEZING / Asthma

B	**Albuterol Nebulizer 1.25 - 2.5 mg** Repeat as needed x 3

STRIDOR / Croup

B	**Albuterol Nebulizer 1.25 - 2.5 mg** Repeat as needed x 3
A	**Epinephrine Nebulizer 1 mg (1:1000) in 2 mL NS** May repeat x 1

	Pediatric Airway Protocol(s) 3, 5 - 7 ***as indicated***
A	**Albuterol Nebulizer 1.25 - 2.5 mg +/- Ipratropium 0.5 mg (DuoNeb)** Repeat as needed x 3 ***if indicated***
A	No response: Consider **Epinephrine 1:1000 0.01 mg / kg IM Maximum 0.3 mg**
P	**Methylprednisolone 2 mg / kg IV / IO / IM Maximum 125 mg**
P	**Magnesium Sulfate 40 mg/kg IV / IO** Infuse over 10 – 20 minutes Maximum 2 g

Notify Destination or Contact Medical Control

Airway Respiratory Protocol Section

Pediatric Asthma
Respiratory Distress

Pearls

- **Albuterol dosing: ≤ 1 year of age 1.25 mg; 1 – 6 y/o 1.25 – 2.5 mg; 6 – 14 y/o 2.5 mg; ≥ 15 years 2.5 – 5 mg.**
- **Recommended Exam: Mental Status, HEENT, Skin, Neck, Heart, Lungs, Abdomen, Extremities, Neuro**
- **Items in Red Text are key performance measures used to evaluate protocol compliance and care.**
- **This protocol includes all patients with respiratory distress, Asthma, Reactive Airway Disease, croup, or bronchospasm.**
- **Patients may also have wheezing and respiratory distress with viral upper respiratory tract infections and pneumonia.**
- **Pulse oximetry AND End-tidal CO2 should be monitored continuously if available.**
- **Combination nebulizers containing albuterol and ipratropium (DuoNeb):**
  Patients may require more than 3 nebulizer treatments, treatments should continue until improvement.
  Following 3 combination nebulizers (DuoNeb), it is preferable to continue albuterol solely with subsequent treatments as there is no proven benefit to continual use of ipratropium.
- **Epinephrine:**
  If allergic reaction or anaphylaxis is suspected, give immediately and repeat until improvement.
  If allergic reaction is not suspected, administer with no improvement and/ or impending respiratory failure.
- **Consider Magnesium Sulfate with impending respiratory failure and/ or no improvement.**
- **Consider IV access when Pulse oximetry remains ≤ 92 % after first beta-agonist nebulizer treatment.**
- **Do not force a child into a position, allow them to assume position of comfort, typically the tripod position.**
- Bronchiolitis is a viral infection typically affecting infants which results in wheezing which may not respond to beta-agonists. Consider Epinephrine nebulizer if patient < 18 months and not responding to initial beta-agonist treatment.
- Croup typically affects children < 2 years of age. It is viral, possible fever, gradual onset, no drooling is noted.
- Epiglottitis typically affects children > 2 years of age. It is bacterial, with fever, rapid onset, possible stridor, patient wants to sit up to keep airway open, drooling is common. Airway manipulation may worsen the condition.
- In patients using levalbuterol (Xopenex) you may use Albuterol for the first treatment then use the patient's supply for repeat nebulizers or agency's supply.
- A silent chest in respiratory distress is a pre-respiratory arrest sign.
- **EMR/ EMT:**
  The use of Epinephrine IM is limited to the treatment of anaphylaxis.
  Administration of diphenhydramine is limited to the oral route only.