

**REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT – Basic**

SMO: Pediatric Respiratory Distress/ Obstruction/Arrest

Overview: Unlike adults, cardiac arrest in children occurs secondary to respiratory insufficiency. Once the child proceeds to a cardiac event, the likelihood of resuscitating that child is slim. Because of this, rapid airway assessment and intervention is imperative in the prehospital setting. Several conditions manifest as respiratory distress in children. These include upper and lower foreign body airway obstruction, upper airway disease (croup, epiglottitis), and lower airway disease (asthma, bronchiolitis, and pneumonia).

INFORMATION NEEDED

- onset, duration
- foreign body aspiration
- fever
- drooling, sore throat
- sputum production
- medications
- history of asthma, exposures (allergens, toxins, smoke), trauma (blunt/penetrating)

OBJECTIVE FINDINGS

- | | |
|--|---|
| <input type="checkbox"/> Deteriorating level of consciousness | <input type="checkbox"/> Tachycardia/ bradycardia |
| <input type="checkbox"/> Intercostal, subcostal, supraclavicular retractions | <input type="checkbox"/> Cyanosis- central |
| <input type="checkbox"/> Apnea or bradypnea/ tachypnea | <input type="checkbox"/> Nasal flaring |
| <input type="checkbox"/> Absent breath sounds | <input type="checkbox"/> Stridor |
| <input type="checkbox"/> Drooling with history of fever, sore throat | <input type="checkbox"/> Tripod position |
| <input type="checkbox"/> Pulse oximetry | <input type="checkbox"/> Grunting |
| <input type="checkbox"/> Choking | |
| <input type="checkbox"/> Abdominal breathing | |

TREATMENT

- ABC's, ensure a patent airway, RMC
- Allow child to determine position of comfort
- Oxygen by blow-by if mild distress
- High flow oxygen by mask, consider BVM early for altered LOC or respiratory distress/ arrest.
- Have suction readily available.
- Relieve obstruction:
 - If airway cannot be established consider foreign body obstruction
 - Tongue/jaw lift and visualize; if see object, attempt to reach in and remove object—do NOT do fingersweep
 - Attempt ventilation, If no chest rise, reposition, re-attempt ventilation.
 - Attempt relief of obstruction:
 - CHILD: up to 5 abdominal thrusts
 - INFANT: 5 backblows followed by 5 chest thrusts
 - REPEAT above steps until obstruction relieved.

TREATMENT (cont)

___ **Albuterol** 2.5 mg/3 cc NS via nebulizer:

- Less than 20 kg use 1.5 cc (half strength) of the unit dose med
*Add 1-2 cc NS to a total of 3 cc

- May Repeat **Albuterol** treatment under Medical Control direction. May be given continuously under Medical Control direction.

___ Rapid transport.

Documentation of adherence to protocol:

___ If obstruction suspected, BLS/ALS maneuvers to relieve obstruction

___ If wheezing noted, **Albuterol** administered.

Medical Control Contact Criteria

___ May Repeat **Albuterol** treatment under Medical Control direction. May be given continuously under Medical Control direction.

PRECAUTIONS AND COMMENTS

- Upper airway obstruction can be a true life threatening condition. It is important to remember that it is often difficult to distinguish severe bacterial infections (e.g. tracheitis, abscess, diphtheria) from other conditions such a croup, etc.
- **The hallmark of upper airway obstruction is inspiratory stridor.**
- In suspected severed bacterial infections, do not manipulate the airway for examination. *Allow child to assume their position of comfort* for breathing (do not force child to lay supine). Provide blow-by oxygen as tolerated. Arrange transport quickly to the closest EDAP.

7/04

Reviewed:

Revised:

EMS/ Region1 SMOs

**REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT-Paramedic**

SMO: Pediatric Respiratory Distress/ Obstruction/Arrest

Definition: Unlike adults, cardiac arrest in children occurs secondary to respiratory insufficiency. Once the child proceeds to a cardiac event, the likelihood of resuscitating that child is slim. Because of this, rapid airway assessment and intervention is imperative in the prehospital setting. Several conditions manifest as respiratory distress in children. These include upper and lower foreign body airway obstruction, upper airway disease (croup, epiglottitis), and lower airway disease (asthma, bronchiolitis, and pneumonia).

INFORMATION NEEDED

- onset, duration
- foreign body aspiration
- fever
- drooling, sore throat
- sputum production
- medications
- history of asthma, exposures (allergens, toxins, smoke), trauma (blunt/penetrating)

OBJECTIVE FINDINGS

- | | |
|--|---|
| <input type="checkbox"/> Deteriorating level of consciousness | <input type="checkbox"/> Tachycardia/ bradycardia |
| <input type="checkbox"/> Intercostal, subcostal, supraclavicular retractions | <input type="checkbox"/> Cyanosis- central |
| <input type="checkbox"/> Apnea or bradypnea/ tachypnea | <input type="checkbox"/> Nasal flaring |
| <input type="checkbox"/> Absent breath sounds | <input type="checkbox"/> Stridor |
| <input type="checkbox"/> Drooling with history of fever, sore throat | <input type="checkbox"/> Choking |
| <input type="checkbox"/> Tripod position | <input type="checkbox"/> Grunting |
| <input type="checkbox"/> Pulse oximetry | |
| <input type="checkbox"/> Abdominal breathing | |

TREATMENT

- ABC's, ensure a patent airway, RMC
- Allow child to determine position of comfort
- Oxygen by blow-by if mild distress
- High flow oxygen by mask, consider BVM early for altered LOC or respiratory distress/arrest
- Have suction readily available.
- Relieve obstruction:
 - If airway cannot be established consider foreign body obstruction
 - Tongue/jaw lift and visualize; if see object, attempt to reach in and remove object—do NOT do fingersweep
 - Attempt ventilation, If no chest rise, reposition, re-attempt ventilation.
 - Attempt relief of obstruction:
 - CHILD: up to 5 abdominal thrusts

- INFANT: 5 backblows followed by 5 chest thrusts
- REPEAT above steps until obstruction relieved.

___ If BLS measures fail, then proceed to Magill Forceps and Direct Laryngoscopy (Consider etiology) Lower Airway (Wheezing)

TREATMENT (cont)

___ **Albuterol** 2.5 mg/3 cc NS via nebulizer:

- Less than 20 kg use 1.5 cc (half strength) of the unit dose med *
Add 1-2 cc NS to a total of 3 cc
- May Repeat **Albuterol** treatment under Medical Control direction. May be given continuously under Medical Control direction. May be administered via in-line BVM or ETT.

___ And/or for severe distress **Epinephrine** (1:1000) 0.01 mg/kg SQ (repeat x 1 in 15 min, max dose 0.3 mg)

___ Suspected Upper airway obstruction:

- Position of comfort
- Avoid invasive procedures or agitation

___ Full Occlusion:

- Ensure airway positioning, seal on BVM mask, ventilate, reassess
- If unsuccessful perform endotracheal intubation

___ Rapid transport

Documentation of adherence to protocol:

- ___ If obstruction suspected, BLS/ALS maneuvers to relieve obstruction
- ___ If wheezing noted, **albuterol** or **epinephrine** given

Medical Control Contact Criteria

- ___ * Contact Medical Control if any question arise regarding the best treatment options for the patient.
- ___ May Repeat **Albuterol** treatment under Medical Control direction. May be given continuously under Medical Control direction.

PRECAUTIONS AND COMMENTS

- Upper airway obstruction can be a true life threatening condition. It is important to remember that it is often difficult to distinguish severe bacterial infections (e.g. tracheitis, abscess, diphtheria) from other conditions such a croup, etc.
- **The hallmark of upper airway obstruction is inspiratory stridor.**
- In suspected severed bacterial infections, do not manipulate the airway for examination. *Allow child to assume their position of comfort* for breathing (do not force child to lay supine). Provide blow-by oxygen as tolerated. Arrange transport quickly to the closest EDAP.