RESPIRATORY DISTRESS

APPROVED: Gregory Gilbert, MD — EMS Medical Director
Nancy Lapolla — EMS Director

DATE: July 2018

Information Needed:

- History: fever, sputum production, medications (bronchodilators, diuretics) asthma, COPD, exposures (allergens, toxins, fire/smoke), trauma (blunt/penetrating)
- Recent use of sildenafil (Viagra®) or other erectile dysfunction medications
- Symptoms: chest pain, shortness of breath, cough, itching

Objective Findings:

- Respiratory rate, rhythm, and pattern
- Breath sounds
- Heart rate and rhythm
- Pulse oximetry, initially and after interventions
- End tidal CO_2 if available
- Cough
- Rash, urticaria
- Work or effort of breathing
- Blood pressure
- Skins signs, perfusion
- Fever
- Mental status
- Evidence of trauma

Treatment:

- Assess ABC's, secure a patent airway, measure pulse oximetry, and administer high flow oxygen via non-rebreather mask or BVM, suction as needed

Bronchospasm/ Wheezing/Asthma/COPD

- History of asthma or COPD.
- For mild - moderate distress, inhaled albuterol 2.5 - 5 mg via nebulizer, repeat as necessary until there is improvement.
- For severe distress with any of the following: cyanosis, accessory muscle use, inability to speak >2 words, decreasing level of consciousness and no response to inhaled albuterol, consider epinephrine (1: 1,000) 0.3 mg IM in the thigh. Epinephrine should only be given if the patient has no known history of coronary artery disease or stroke. Use with extreme caution in patients over 35 years of age.

- Attempt endotracheal intubation only if the patient exhibits progressive signs and symptoms of respiratory failure.

Congestive Heart Failure (hypertension, tachycardia, JVD, wheezing, edema, rales)

- Nitroglycerin 0.4 mg SL, repeat every 3-5 minutes if SBP remains >90. IV is not required prior to NTG administration. Continue nitroglycerin administration throughout the duration of the call, if SBP >90.
- IV access
- If hypotensive with SBP <90 (cardiogenic shock), administer Dopamine 5 mcg/kg/min IV infusion. If inadequate response, may titrate every 5 minutes in 5 mcg/kg/min increments to maintain SBP > 90mmHg. Maximum dose is 20 mcg/kg/min. Consider base physician contact
- Consider albuterol 2.5 - 5 mg via nebulizer for significant wheezing
- Continuous Positive Airway Pressure (CPAP) may be considered if tolerated and available for patients in moderate or severe respiratory distress (may use albuterol with CPAP)
- Attempt endotracheal intubation if patient exhibits progressive signs and symptoms of respiratory failure

Upper Airway Obstruction

- Relieve obstruction (position, suction, Heimlich maneuver, abdominal thrusts), visualization and removal with Magill Forceps, Endotracheal Tube (ET) as needed

Severe Allergic Reaction/Anaphylaxis (itching, rash, wheezing)

(See Allergic Reaction Protocol)

Precautions and Comments:

- Supplemental oxygen should not be withheld in COPD patients, but it may decrease respiratory rate.
- Do not administer nitroglycerin to patients who have taken sildenafil (Viagra®) or other erectile dysfunction medications within the last 48 hours.
- Unless contraindicated, always administer at least 3 doses of nitroglycerine prior to administration of morphine.
- Epinephrine 1:1000 is administered by the intramuscular route for respiratory distress. To provide a potent dose, it should be administered in the thigh and used in patients 35 and under without history of CAD or stroke.
- The ETs placement and patency must be maintained at all times. Confirm ET position (reassess and document) with any patient transfer
- Rapid deterioration or decreased breath sounds have several causes. These include: tube dislodgement into the esophagus, tube migration into right main stem bronchus, secretions in the tube, pneumothorax. Confirm by direct visualization and CO_2 detector. Consider reintubation.

SNAKEBITE

APPROVED: Gregory Gilbert, MD EMS Medical Director
Nancy Lapolla EMS Director

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Information Needed:

- Type of snake, if known and location found
- Appearance of snake, shape of pupil, presence of stripes or rattle, size of snake
- Time of bite
- Prior first aid by patient or friends
- Symptoms: local pain or swelling, metallic taste in mouth, hypotension, coma, bleeding

Objective Findings:

- One or more punctures wounds, or horseshoe set of teeth marks
- For pit-vipers (*Crotalines*), there is a spectrum of envenomation from non-envenomation to serious envenomation

Non-envenomated:

- No discoloration around puncture marks
- Little or no pain after a few minutes
  Treatment:
  - Safety first; do not attempt to capture snake and do not handle an apparently dead snake or decapitated snake head with your hands
  - If transporting the snake, be certain that it is in a closed solid container
  - Remove rings or other jewelry which might constrict circulation later
  - Routine Medical Care
  - Transport all suspected patients with envenomations for medical evaluations

Serious Envenomation:

- Dark discoloration around punctures within 5 minutes
- Marked edema formation
- Severe pain within a short time
- Altered mental status
- Oozing of hemolyzed blood from punctures, possible formation of fluid blebs on skin
- Fasciculation
- Hypotension
- Marked tachycardia
- Definite metallic taste