4406 Respiratory Distress

Treatment Protocol

Last Reviewed: **October 4, 2022** | Last Revised: **July 1, 2023**

BLS Patient Management

- **Establish, maintain, and ensure:**
  A. A patent and easily managed airway. Use manual maneuvers (head-tilt / chin-lift or jaw thrust), oropharyngeal suction and/or airway adjuncts (OPA / NPAs) as clinically indicated
  B. Adequate respirations and tidal volume. Use a mouth-to-mask device or bag valve mask (BVM), when clinically indicated. Rescue ventilations via a BVM require the use of a manometer. Waveform / digital capnography is required when paramedics are present
  C. Controlled bleeding. Use direct pressure and/or pressure dressing(s) and/or tourniquet(s) and/or hemostatic dressing(s), as clinically indicated

- **Oxygen**
  As clinically indicated. Titrate to maintain, or increase, SpO_2 to a minimum of 94%. A range of 88-92% is acceptable for patients with a history of COPD

- Position the patient as clinically indicated for safety, comfort, and to meet physiologic requirements

- If epiglottitis is suspected, do not visualize the throat. Position the patient upright / full fowlers position, leaning forward, to allow drainage of secretions. Minimize stimulation, movement and manipulation of the mouth, throat, and neck

- **For known or suspected submersion incidents in the presence of altered mental status or unresponsiveness**
  If laryngospasms are suspected, give five (5) initial breaths, and provide hand ventilations after the insertion of an airway adjunct. Ventilate through foamy secretions and suction as needed. If symptoms should resolve, encourage transport for continued evaluation

ALS Patient Management

- Establish, maintain, and ensure peripheral IV and/or IO access for emergency stabilization, and/or as clinically indicated, in adult and pediatric patients

  Consider the need for additional sites as clinically indicated

  Interpret and continuously monitor ECG, vital signs, SpO_2 and waveform / digital capnography

  Perform, interpret, and transmit 12-lead ECG(s), as clinically indicated, when:
  - A STEMI is suspected
  - A STEMI is ECG-monitor identified or
  - The patient's cardiac rhythm is atypical or difficult to interpret

- **For bronchospasm**
  Adults and pediatrics: Albuterol 2.5 mg / 3 mL (one pouch), nebulized. **MAY REPEAT PRN**.

  Adults and pediatrics: Ipratropium Bromide 0.5 mg / 2.5 mL (one pouch), mixed with one (1) pouch of Albuterol, then nebulized. **ADDITIONAL ADMINISTRATIONS REQUIRE A BASE HOSPITAL ORDER (BHO)**.

- **For respiratory distress**
  INITIAL AND REPEAT ADMINISTRATIONS FOR ADULTS AND PEDIATRICS REQUIRE A BASE HOSPITAL ORDER (BHO).
  Adults: Epinephrine 0.3 mg (0.3 mL, 1 mg / mL concentration) IM.

  Pediatrics: Epinephrine 0.01 mg / kg (1 mg / mL concentration) IM. **MAX SINGLE DOSE IS 0.3 MG.** For assistance with accurate dosing, refer to the REMSA PMDR or REMSA app.

- **For respiratory distress of suspected cardiac origin / CHF exacerbation**
  When the patient's systolic BP is greater than 90 mmHg, assist them with administration of their physician prescribed Nitroglycerin, to a max of 1.2 mg. Monitor the patient for signs of hypotension. Record the patient's self-administration in the ePCR as, "Self-administered"

- **For respiratory distress of suspected pulmonary origin**
  Assist the patient with administration of their physician prescribed MDI or other appropriate medication. Record the patient's self-administration in the ePCR as, "Self-administered"

- Attach ECG leads to the patient when a paramedic is present. May assist with placement of the 12-lead cables

- Prepare for, assist with, and/or apply CPAP as directed when a paramedic is present

- **For asthma exacerbation unresponsive to Albuterol and Ipratropium breathing treatments**
  INITIAL AND REPEAT ADMINISTRATIONS FOR ADULTS AND PEDIATRICS REQUIRE A BASE HOSPITAL ORDER (BHO).
  Adults: Magnesium Sulfate 2 gm / 4 mL slow IV/IO push.

  Pediatrics: Magnesium Sulfate 50 mg / kg slow IV/IO push. For assistance with accurate dosing, refer to the REMSA PMDR or REMSA app.

- **For suspected esophageal food impaction**
  INITIAL AND REPEAT ADMINISTRATIONS FOR ADULTS AND PEDIATRICS REQUIRE A BASE HOSPITAL ORDER (BHO).
  Adults: Glucagon 1 mg (1 mL) IV/IO/IM.

  Pediatrics:
  Weight = 21 kg (≈46 lbs) or less: Glucagon 0.5 mg (0.5 mL) IV/IO/IM.
  Weight = 22 kg (≈48 lbs) or more: Glucagon 1 mg (1 mL) IV/IO/IM.

- **For dyspnea with suspected CHF**
  Nitroglycerin 0.4 mg (1 tablet or 1 metered spray) SL when the patient's systolic BP is greater than 90 mmHg. **MAY REPEAT TWICE AT 3-5 MINUTE INTERVALS**. **ADDITIONAL ADMINISTRATIONS REQUIRE A BASE HOSPITAL ORDER (BHO)**.

  ****AND****

  Nitroglycerin 1 gm (1 inch) transdermal paste when the patient's systolic BP is greater than 90 mmHg. If systolic BP falls below 90 mmHg, wipe away paste. **ADDITIONAL ADMINISTRATIONS REQUIRE A BASE HOSPITAL ORDER (BHO)**.

  Administration following the patient's use of a PDE5 inhibitor (ex: Cialis / tadalafil, Levitra / vardenafil, Stendra / avanafil or Viagra / sildenafil) requires a base hospital physician order (BHPO).

  ADMINISTRATION OF NITROGLYCERIN TO PEDIATRIC PATIENTS IS NOT PERMITTED.

- **For severe respiratory distress suggestive of:**
  - **CHF exacerbation**
  - **COPD exacerbation**
  - **Asthma exacerbation**
  - **Non-fatal drowning**

  CONTINUOUS POSITIVE AIRWAY PRESSURE (CPAP)
  Begin at 5 cmH_2O and increase pressure in 2.5 – 5 cmH_2O increments, to max 15 cmH_2O. **TITRATE TO RELIEF OF DYSPNEA**. **INCREASING PRESSURE TO 20 cmH_2O REQUIRES A BASE HOSPITAL ORDER (BHO)**.

  CPAP APPLICATION AND USE IN PEDIATRICS IS NOT PERMITTED.

  Evaluate the patient for
  - Normalizing of inspiratory-to-expiratory time ratio (i.e. - 1:2)
  - Increasing SpO_2
  - Tolerance of CPAP

  Attach, interpret, and continuously monitor $EtCO_2$

  Request additional resources as required to ensure that CPAP is continued throughout the prehospital interval

  THE PATIENT'S SYSTOLIC BP MUST BE GREATER THAN 90 MMHG AT ONSET, AND DURING, CPAP TREATMENT. IF THE PATIENT'S SYSTOLIC BP FALLS BELOW 90 MMHG, CONTACT A SINGLE BASE HOSPITAL FOR DIRECTION.

- **For anxiety related to the use of CPAP**
  Adults: Midazolam 1 mg (0.2 mL) slow IV/IO push or IM/IN. Patient's systolic BP must be greater than or equal to 90 mmHg at the time of administration. **ADDITIONAL ADMINISTRATIONS REQUIRE A BASE HOSPITAL ORDER (BHO)**.

  ADMINISTRATION OF MIDAZOLAM TO PEDIATRIC PATIENTS FOR ANXIETY RELATED TO THE USE OF CPAP IS NOT PERMITTED.