7.01 GENERAL AIRWAY MANAGEMENT
EMSAC JUNE 2026

BLS ~~Treatment~~ Management

- Assess ABC's, ~~circulation, airway, breathing~~, vital signs and responsiveness.
- Generally, the approach is to implement interventions below in escalating fashion to meet patient care goals.
- Monitoring: Patients with significant respiratory distress should have **continuous pulse oximetry** for guiding therapy.
    - Place probe on finger. Pediatric finger wraps may be helpful in pediatrics.
    - Of note, hypothermia and peripheral vasoconstriction significantly impair pulse oximetry accuracy. In addition, pulse oximetry over may overestimate SpO_2 in patients with darker skin.
- Administer **Oxygen** PRN (goal SPO_2>94%). Depending on patient presentation this may be accomplished with:
    - Nasal cannula
    - Non-rebreather
    - Bag Valve Mask (BVM)
- Open and maintain patent airway. If needed:
    - Provide head tilt/chin lift, or jaw thrust if concern for potential spinal injury
    - Suction airway
- Oral pharyngeal airways (OPA) or nasopharyngeal airways (NPA) can be placed if needed to maintain a patent airway and make BVM ventilation more effective
    - **OPA** are used for patients without gag reflex
    - **NPA** are used for patients with gag reflex
- Patient positioning can significantly impact respiratory mechanics. Patients with severe bronchospasm should be left in the position of comfort (perhaps tripod), whenever possible. Elevating the head can assist with opening airway mechanics.
- Use **BVM ventilation** in the setting of respiratory failure or arrest. Whenever possible, the patient's head should be elevated to 30 degrees.
    - Two (2) person, two (2) thumbs up BVM ventilation is preferred if possible
    - PEEP should be used with BVM. Five (5) cmH_20 is generally an appropriate PEEP setting
- Tidal volume:
    - Ventilate with just enough volume to see chest rise, ~~approximately 6-8ml/Kg ideal body weight.~~
    - Over-inflation (e.g. excessive tidal volume) and over ventilation (e.g. excessive minute ventilation are both undesirable and potentially harmful.
- Normal Rate:
    - Adult: 10-12 breaths/minute
    - Child: 20-30 breaths/minute
    - Infant: 20-30 breaths/minute
- Foreign body airway obstruction:
    - Five (5) back blows (slaps), followed by five (5) abdominal thrusts.
    - Repeat until object is expelled or patient becomes unresponsive.
    - If patient becomes unresponsive, attempt to directly visualize foreign body

and remove (e.g. use of magill forcep).

- ~~Assist ventilations with BVM and oxygen if indicated.~~
- ~~Pulse oximetry if training occurs and approved by Provider Medical Director.~~
- ~~BLS maneuvers to remove foreign body airway obstruction as indicated.~~
- ~~Oxygen as indicated.~~
- ~~OPA or NPA as indicated~~

ALS ~~Treatment~~ Management

- Monitoring: Quantitative waveform capnography ($EtCO_2$) is indicated ~~for~~:
  - To assess and monitor ventilatory status in patients with significant respiratory distress
  - To assist in decision-making for patients with respiratory difficulty of unclear cause (e.g. bronchospasm vs pulmonary edema) and to help direct therapy.
  - To evaluate acid-base status in critically ill patients
  - To confirm correct placement and continuously monitor patients with **Supraglottic Airway (7.03)** or **Oral Endotracheal Intubation (7.04)**
- $EtCO_2$ is **NOT** indicated for every patient with shortness of breath.
- For patients **<8 years** of age:
  - Laryngoscopy to remove foreign body airway obstructions.
  - BVM ventilation is the preferred method of ventilatory support.
  - Consider **Supraglottic Airway (7.03)** if patient is in cardiac or pulmonary arrest or has a decreased level of consciousness, no purposeful movement AND Loss of gag reflex.
  - ~~for patients~~

~~Supraglottic Airway for patients greater than 28 days old who cannot be adequately managed with BLS airway interventions.~~

  - ~~Use of advanced airway interventions as indicated in the following order. No more than two total attempts at any one intervention before moving to an alternate approach.~~
- For patients **≥8 year** of age:
  - Laryngoscopy to remove foreign body airway obstructions.
  - ~~Use of~~ **Continuous Positive Airway Pressure (7.02)** as indicated.
  - ~~Use of~~ Advanced airway interventions as indicated in the following order. No more than two (2) total attempts at any one intervention before moving to an alternate approach.
    - **Supraglottic Airway** (7.03)
    - **Oral Endotracheal Intubation** (7.04) (Video Laryngoscopy EMS Personnel with additional training ONLY).
    - ~~**Percutaneous Cricothyroidotomy** (7.05): above interventions are unsuccessful AND BLS ventilation and oxygenation is Needle Cricothyrotomy with jet insufflation as the airway of last resort.~~

~~**FOR VIDEO LARYNGOSCOPY TRAINED PERSONNEL ONLY**~~

- ~~Video laryngoscopy may be used as the first line initial ALS airway intervention, superseding the replacing supraglottic airway when: attempts above, under the following conditions:~~
  - ~~A BLS airway is already established.~~
  - ~~The procedure skill is performed by a Paramedic who has successfully completed the EMS Agency approved airway training course~~
  - ~~Chest Compressions are not interrupted during use of the device~~
- ~~Do NOT remove Under no circumstances shall a A successfully placed ALS airway device must **never** be removed in order to perform video laryngoscopy If removed, . Removal of a successfully established ALS airway device, confirmed using appropriate verification methods, with subsequent video laryngoscopy is a mandatory reporting event and an Exception Report shall be filed to the EMS Agency in accordance with policy~~
- ~~Video laryngoscopy may be used to confirm placement of an endotracheal tube~~

Comments ~~Notes~~

- ~~Video laryngoscopy may be used in conjunction with oral endotracheal intubation if approved by the Medical Director~~.
- ~~Must o~~ Obtain and document End Tidal CO2 for initial advanced airway placement and continuous monitoring of advanced airways ~~(see protocol 7.02 Oral Endotracheal Intubation Procedure #16).~~
- ~~Any airway intervention not following the above treatment sequence requires rationale documented within the first response documentation and/or patient care report~~.
- To reduce the risk of dislodgement, reconfirm and document all advanced airway adjuncts with capnography continuously, especially before and after each patient transfer/offload.
- If an advanced airway intervention does not follow the treatment sequence outlined above, the rationale must be documented in the patient care report.
- ~~Target O2 saturation 94-95%.~~

~~Target End Tidal CO2 is 35-45 mmHg~~