POLICY: 552.55

TITLE: Air Ambulance Provider Optional Scope of Practice – Video Laryngoscopy (VL)

EFFECTIVE: 07/01/2019

REVIEW: 07/2024
SUPERCEDES:

APPROVAL SIGNATURES ON FILE IN EMS OFFICE

Air Ambulance Provider Optional Scope of Practice – Video Laryngoscopy (VL)

I. AUTHORITY

Health and Safety Code, Division 2.5, California Code of Regulations, Title 22, Division 9

II. PURPOSE

To serve as a patient treatment standard for Air Ambulance Provider Paramedics.

III. POLICY

DO NOT MISS

- Only Qualified Paramedics meeting the requirements for this optional scope under the definitions may utilize this protocol
- Preparation
  - Equipment ready and functioning – suction
  - Consider Hi Flow Nasal Canula O_2 @ 1 liter/kg, max=15 liters
  - Do not use on conscious patients
  - Mouth – Screen – Mouth – Screen
  - Be VERY gentle advancing the tube – especially with a “Hyperacute” blade

1. **Function:** To utilize VL to secure an ETT via orotracheal intubation when Direct Laryngoscopy is less desirable or contraindicated
2. **Circumstances under which RN (or Paramedics within Scope) may perform function:**
   A. Setting: Qualified Transport Program Paramedic
   B. Patient condition: failure to oxygenate, ventilate, protect the airway or predicted airway compromise requiring definitive airway control
   C. Device utilized must be that device the Qualified Transport Program and personnel utilize and train with. Unfamiliar devices should not be utilized.

3. **Relative Indications:**
    A. Predicted difficult airway
    B. Spinal precautions
    C. Possible rescue for failed direct laryngoscopy

4. **Contraindications:**
    A. Responsive patients with an intact gag reflex
        1) Must be unresponsive as in a "crash airway patient" or assure paralytic is on board – typically 1 full minute after rocuronium.

5. Cautions:
    A. Overwhelming fluid in the airway (blood/vomit will obscure view)
    B. Operator inexperience

6. **Size Selection:**
    A. Is typically the same as for direct laryngoscopy.
    B. Always have one device larger and one device smaller ready.
    C. Confirm the size chosen with the package insert/table as the devices vary slightly.
    D. For pediatric patients utilize a length or weight-based tape or application and confirm with the package insert/table.

7. Equipment:
    A. Appropriate PPE
    B. Video Laryngoscope with appropriately sized blades – typically the same as DL, but double check with weight/length-based system and with package insert. Have a smaller and a larger blade available.
    C. Appropriate stylet (rigid for Glidescope) and bougie backup
    D. Endotracheal tubes
    E. Oxygen – high flow nasal cannula
    F. BVM
    G. IV Fluids
    H. Syringes and Needles
    I. Appropriate premedication's and RSI (if approved)
    J. SPO2 and ETCO2 monitors
    K. Supraglottic Rescue Airway
    L. Direct Laryngoscope for rescue
    M. Surgical Airway Rescue

8. **Procedure:**
    A. Pre-oxygenate using a non-rebreather mask or BVM with a FiO2 of 100% for at least 2-3 minutes; or 8 vital capacity breaths if patient is able.
        1) If pulse oximetry of less than 95%, initiate ventilatory assistance with a BVM.

2) When using a BVM during pre-oxygenation, ventilate at a rate only to maintain oxygen saturation at 95% and avoid hyperventilation
3) Utilize passive oxygenation via NC at 1liter/min/kg up to max 15 liters/min during apnea and intubation attempts.

B. Position patient. Apply in-line cervical spine stabilization (not traction) if indicated or sniffing if allowable.

C. **Consider fluid bolus 20ml/kg if hypovolemic, asthmatic, COPD, or in shock.**

Time out:

Ensure:

- **All equipment is ready**
- **All practitioners are ready**
- **What is the next step if this step fails**
- **At what point will we stop and BVM the patient**
- **If any questions remain regarding readiness, do not proceed until everyone and everything is ready**

D. Administer premedication as indicated, 3-5 minutes prior if possible.
- RSI medications: etomidate (0.3 mg/kg IV) or ketamine (2 mg/kg slow IV push over 2 minutes), then rocuronium (1mg/kg IV) – allow 60 seconds before placing laryngoscope).

E. Position head appropriately given age and diagnosis (no extension in trauma)

F. Suction oropharynx as required.

G. Perform Video laryngoscopy

1) Prebend stylet appropriately for device and ETT
2) Suction early – small amounts of fluid may obscure camera view
3) Look **Mouth:** Place VL centrally on tongue and gently advance back until the blade has passed the posterior aspect of the tongue.
4) Look **Screen**: Look for epiglottis in the scope and preferably place the blade in the vallecula like with DL. Consider Laryngeal Manipulation (Self-Assess --- is blade is too deep?)
5) Look **Mouth**: Gently place ETT along the right side of the VL blade just past the posterior aspect of the tongue.
6) Look **Screen**: Gently manipulate the ETT through the cords and advance to place the black marks on the ETT around the cords

   NOTE: with rigid stylets/hyperacute blades like the Glidescope, the stylet must be removed before the ETT is advanced or it will damage the anterior wall of the trachea.
7) Pull the stylet or bougie
8) Inflate cuff (if present).
9) **Verify placement of endotracheal intubation using a minimum of 4 methods:**
   - Equal lung sounds bilaterally, chest rise and fall
   - Mist present in ETT with exhalation
   - Presence of $ETCO_2$ wave form ($ETCO_2$ capnography is the standard however in rare circumstances where $ETCO_2$ not available may use appropriate color change on colorimetric $ETCO_2$ device).

- Normal SpO_2 reading

10) Secure the ETT using tape or a compatible commercial device.
11) Monitor placement continuously:
    - Monitor $ETCO_2$ and SpO_2 continuously.
    - Reconfirm placement using a minimum of 4 methods (chest rise, lung sounds, appropriate $ETCO_2$ reading, appropriate SpO_2 reading, mist in tube, tube depth based @ lip line) after every patient move

H. Consider placement of Gastric Drainage device. To facilitate ventilation and avoid regurgitation, an OG or NG tube should be placed.
I. Perform post-intubation management.

10. Recordkeeping:

A. Document full procedure note
    1) Procedural Time Out
    2) Appropriate times for intubation
    3) VL and ETT size and depth
    4) Document frequency of assisted ventilations and patient's respiratory rate (will be the same or higher if over-breathing).
    5) Document VS, SpO2, ETCO2 and ETT placement confirmation at transfer of care.