

POLICY: 552.55
TITLE: Air Ambulance Provider Optional Scope of Practice – Video Laryngoscopy (VL)
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SUPERCEDES:

APPROVAL SIGNATURES ON FILE IN EMS OFFICE

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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 O₂ @ 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 ET_{CO}₂ wave form (ET_{CO}₂ capnography is the standard however in rare circumstances where ET_{CO}₂ not available may use appropriate color change on colorimetric ET_{CO}₂ device).

- Normal SpO₂ reading
- 10) Secure the ETT using tape or a compatible commercial device.
- 11) Monitor placement continuously:
 - Monitor ETCO₂ and SpO₂ continuously.
 - Reconfirm placement using a minimum of 4 methods (chest rise, lung sounds, appropriate ETCO₂ reading, appropriate SpO₂ 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.