

APPENDIX: 04

TITLE: SUPRAGLOTTIC AIRWAY PROCEDURES

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- I. **BACKGROUND:** Supraglottic airways (SGA) offer an alternative to Endotracheal Intubation in a number of circumstances. Currently is a single Supraglottic Airway in the ACCESS/ACP system: The Laryngeal Mask Airway (LMA) *Supreme*, although this does not preclude the use of other SGAs in specific circumstances. This document supplements *APPENDIX 2: Advanced Airway Support Supplement* and provides general guidance on the specific procedure of placing an LMA, not airway management, with the understanding that specific circumstances may necessitate some variance from standard procedure.

II. Indications and Contraindications**General Indications**

- Cardiopulmonary arrest
- Respiratory arrest
- Comatose with non-maintainable airway
- Pronounced hypoxia
- Inadequate ventilation by BVM or other airway device.

STRONGLY CONSIDER WITH

- As an alternative (i.e. a “rescue airway device”) to other advanced airways devices/interventions in actual or anticipated difficult airway situations
- After unsuccessful endotracheal intubation attempts, or where endotracheal intubation is not available or feasible.
- Any patient with a decreased level of consciousness with compromised ability to manage their airway
- Those patients who fail to respond to positive pressure ventilation/airway support
- Anticipated clinical course such as impending respiratory or airway failure

Absolute Contraindications

- Intact gag reflex
- Inadequate mouth opening to allow placement

Relative Contraindications

- Known/suspected esophageal disease such as Esophageal Varices or Esophageal cancer
- Known or suspected ingestion of a caustic substance
- Edema of the airway such as burns or anaphylaxis

Cautions

- Morbid Obesity (LMA – Increased risk of aspiration, increased difficulty ventilating)
- Obstructive and reactive airway disease (LMA - airway pressures needed may exceed mask/cuff pressure)
- Pregnancy > 14 weeks (LMA - increased risk of aspiration)
- If airway problems persist or ventilation is inadequate, the SGA should be removed and an airway established by some other means

III. Sizing

Weight Based Selection: The LMA is selected based on Patient size (weight) not Height)

LMA Size	Patient estimated or actual Size	Maximum Cuff volume*	Maximum OG size
1	Neonates/Infants up to 5 kg (11 pounds)	5 ml	6 fr.
1.5	Infants 5- 10 kg (11-22 pounds)	8 ml	6 fr.
2	Infants 10-20 KG (22-44 pounds)	12 ml	10 fr.
2.5	Children 20-30 KG (44-66 pounds)	20 ml	10 fr.
3	Children 30-50 KG (66-110 pounds)	30 ml	14 fr.
4	Adults 50-70 kg (110-154 pounds)	45 ml	14 fr.
5	Adults 70-100 kg (154-220 pounds)	45 ml	14 fr.

*These are maximum volumes that should never be exceeded. It is recommended that the cuff be inflated no more than a maximum of 60 cm H₂O intracuff pressure if known.

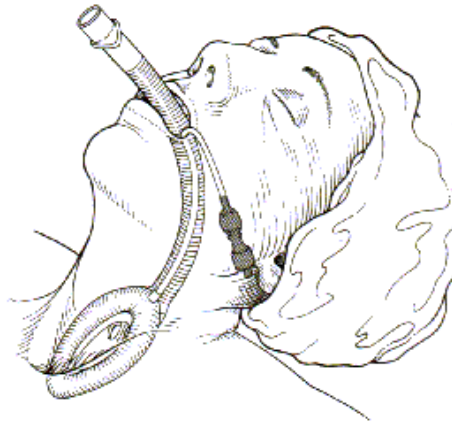
Alternative Sizing Methods

Oral Airway Comparison: Size the oral airway according to the traditional sizing method (angle of the jaw to the corner of the mouth). Choose the appropriate size LMA® Supreme™ Airway, based on the following:

- 80 mm oral airway (#3) = Size 3 LMA® Supreme™ Airway
- 90 mm oral airway (#4) = Size 4 LMA® Supreme™ Airway
- 100 mm oral airway (#5) = Size 5 LMA® Supreme™ Airway

IV. Procedure

- Procedure
- Place patient in supine position if possible.
- Pre-oxygenate patient to attain SpO₂ of > 94% if possible. Oxygenation should target an SPO₂ of > 94%. This ensures sustained oxygenation during the airway attempt (“Safe Apnea”).
- Chose an appropriate size LMA.
 - For normal adults, use the size 4 device as a first choice.
 - an approximate estimate of suitable sizing can be made by holding each device against the side of the patient’s face in the position corresponding to that shown below.



- Inspect the cuff for damage or tears.
- Check the cuff for proper inflation/deflation. *Deflate* the cuff completely using at least 50 cc of aspiration and watch for re-inflation (indicates there is a leak)
- Apply a water based lubricant to the DORSAL/POSTERIOR aspect of the LMA, including the shaft.
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- Insert the LMA into the hypopharynx until resistance is met.



- Connect the LMA to the desired ventilation device /method and ventilate the patient.
- Use as many as possible of the following confirmation techniques:
 - Mist in the tube
 - Quantitative and Qualitative end tidal CO₂ (EtCO₂)
 - Maintain at 35-45 mmHg
 - Monitor Waveform
 - Auscultation of gastric region *and* bilateral chest
 - Equal chest rise with assisted ventilations
 - No Epigastric sounds
 - Recovery/maintenance of SpO₂
- Additional RECOMMENDED confirmation methods:
 - Fixation Tab Test: (Recommended to confirm correct size and esophageal seal) After fixation, the taping tab should be positioned 1 to 2.5 cm from the upper lip.
 - If the taping tab is more than 2.5 cm from the upper lip, this suggests the device may be too big.
 - If the taping tab is less than 1 cm from the lip, this suggests the device may be too small.
 - At no time should the taping tab be in contact with the upper lip.
 - Use clinical judgment to replace a mask that appears too big or small
 - Gel Test: (Recommended to confirm correct size and esophageal seal)
 - Apply ¼ inch of (viscous) water-soluble sterile lubricant to the proximal end of the drain tube and hand ventilate. The gel should remain covered across the top of the drain tube.

- This indicates that the esophageal seal has been achieved by ensuring the tip of the mask is against the upper esophageal sphincter.
- OG Tube Placement (optional): (Inserting an OG tube allows the option to either suction or decompress the stomach. Successful passage of an OG tube is definitive confirmation of drain tube patency and tract separation).
- Record depth markings
- Secure the tube with either a commercial tube holder (Adult) or tape (Pediatric or adult).
- Immobilize the neck to prevent movement. A cervical collar is recommended to achieve this.
- Reassess frequently

SUPRAGLOTTIC AIRWAY PROCEDURES

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