

**Medical Procedure****Date: 07/01/2023****Supraglottic Airway Insertion****Policy #7030****I. Purpose:**

- A. To establish indications, guidelines, and the standard procedure for supraglottic airways in the pre-hospital setting.

**II. Authority:**

- A. Health and Safety Code, Section 1797.220, 1798. Title 22, Section 100170.

**III. Policy:**

- A. The use of supraglottic airway devices are limited to EMT-P, Advanced EMTs, and EMT-Bs who maintain their optional scope skill certification for rescue airways.
- B. iGel airways are the approved rescue airway device for adults for Imperial County.
- C. Supraglottic devices may be utilized under the following indications:
  - 1. Cardiac arrest (of any cause)
  - 2. Inability to ventilate non-arrest patient (with BLS airway maneuvers) in a setting in which endotracheal intubation is not successful or unable to be done.
- D. Contraindications include:
  - 1. Presence of gag reflex
  - 2. Caustic ingestion
  - 3. Known esophageal disease (e.g. cancer, varices, stricture, others)
  - 4. Laryngectomy with stoma
  - 5. Inability to place device due to difficulties with mouth opening
  - 6. Known or suspected pathological or foreign-body airway obstruction, including epiglottitis
  - 7. Trauma to the trachea, neck, or oropharynx
  - 8. Caustic ingestion
  - 9. Active vomiting
  - 10. Relative: Anticipated requirement for high inspiratory pressures during ventilation
- E. Two attempts with the supraglottic airway are permissible. Ventilations should be interrupted no more than 10 seconds per attempt
  - 1. Patient should be ventilated for two minutes prior to intubation attempt to improve oxygenation and ventilation between attempts if BLS maneuvers are providing breathing support, and pre-oxygenation is possible
    - a. Patient should be connected to continuous monitoring including: pulse

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oximetry, ECG leads, end tidal CO<sub>2</sub> monitoring, and blood pressure throughout procedure

- b. Maintain c-spine if traumatic injury suspected
  - c. All patients should be pre-oxygenated with 100% BVM (or NRB if patient ventilating well) and 6 L nasal cannula prior to intubation attempt as possible. Do not hyperventilate the patient
  - d. Nasal cannula oxygenation should continue through intubation attempt
  - e. End tidal CO<sub>2</sub> should be placed prior to intubation or supraglottic airway placement attempt
- F. If a supraglottic device is to be placed, or is anticipated for potential placement, ALS should be contacted as early as possible to prepare for other needed ALS interventions.
- G. Documentation should include:
1. Indication for use of supraglottic airway device
  2. Pre-insertion vital signs including EtCO<sub>2</sub>
  3. Number of attempts
  4. Positioning and securement of device
  5. Complications
  6. Response to treatment

**IV. Procedure:**

- A. EtCO<sub>2</sub> should be placed when airway or ventilation interventions begin and should be maintained throughout intervention.
- B. Preoxygenate and ventilate the patient as described above
- C. Have a spare AIRWAY DEVICE ready and prepared for immediate use.
- D. Insertion:
  1. Select an appropriately-sized supraglottic airway and remove it from its packaging and cradle. EGD sizing is based on patient weight.

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i-gel size	Patient size	Patient weight guidance (kg)
 <b>1</b>	<b>Neonate</b>	<b>2-5</b>
 <b>1.5</b>	<b>Infant</b>	<b>5-12</b>
 <b>2</b>	<b>Small paediatric</b>	<b>10-25</b>
 <b>2.5</b>	<b>Large paediatric</b>	<b>25-35</b>
 <b>3</b>	<b>Small adult</b>	<b>30-60</b>
 <b>4</b>	<b>Medium adult</b>	<b>50-90</b>
 <b>5</b>	<b>Large adult+</b>	<b>90+</b>

2. Place lubricant on the cradle. Lubricate the supraglottic airway on all sides, taking care to avoid the lumen.
3. Open the patient's mouth and introduce the soft tip towards the hard palette.
4. Allow the supraglottic airway to glide along the hard palette and advance the device until resistance is felt.
5. Confirm placement by ventilating with a bag-valve mask.
6. Secure the supraglottic airway using the included tube holder. Do not use Thomas tube holders for this purpose as they are not designed to accommodate a supraglottic airway.
7. Depth markings are provided at the proximal end of the AIRWAY DEVICE which refers to the distance from the distal ventilatory openings. When properly placed with the distal tip and cuff in the upper esophagus and the ventilatory openings aligned with the opening to the larynx, the depth markings give an indication of the distance, in cm, to the vocal cords. Document this in the PCR.
8. Auscultate for breath sounds and sounds over the epigastrium and look for chest rise and fall.
9. Confirm device placement using end-tidal CO2 detector, and continuous EtCO2.
10. Once placement is confirmed, secure tube prior to movement/transport.
11. It is required that the airway be monitored continuously through waveform capnography and pulse oximetry.
12. If unable to ventilate, remove and ventilate with 100% oxygen.

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- a. One troubleshooting attempt, taking < 1 minute is acceptable. If time exceeds one minute, remove the airway device, and restart with BVM management.

E. If it becomes necessary to remove a supraglottic device:

1. Where possible, raise the patient to a semi-recumbent position (30°).
2. Prepare suction, bag-valve mask, and oxygen delivery devices.
3. Cut or remove ties or tube holders.
4. Ask the patient to take a deep breath if conscious, then blow out firmly. While the patient is blowing out, pull the airway smoothly out of the mouth.
5. Suction the oropharynx as needed.
6. Monitor oxygen saturation.
7. Support respirations as needed.

**V. Special Considerations:**

- A. Airway obstructions are an absolute contraindication to the use of a supraglottic airway. Paramedics **must**, therefore, confirm they are able to ventilate the patient with a bag-valve mask prior to placing a supraglottic airway.
- B. The supraglottic airway is a tool to solve problems relating to oxygenation and ventilation. Paramedics should apply a staged approach to airway problem solving prior to using a supraglottic airway.
- C. PCPs are permitted to use a modified approach to the in-built suction port available on all iGel SGAs to provide pharyngeal suction during cardiac arrest.
- D. Do not occlude the suction port of the supraglottic airway.

**VI. Certification Requirements:**

- A. Maintain knowledge of the indications, contraindications, technique, and possible complications of the procedure.
- B. Assessment of this knowledge may be accomplished via quality assurance mechanisms, classroom demonstrations, skills stations, or other mechanisms as deemed appropriate by the Imperial EMS System.
- C. Assessment should include direct observation at least once per certification cycle.

**VII. Troubleshooting:**

- A. If placement is unsuccessful, remove device, ventilate with BVM at 100% oxygen and repeat sequence of steps.

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B. If unsuccessful on second attempt, BLS airway management should be resumed.

**VIII. Documentation:**

A. 100% of pediatric iGel uses will be reviewed and should be submitted by agencies within one month of use.

APPROVED:

Signature on File

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