



## EMS System for Metropolitan Oklahoma City and Tulsa 2019 Medical Control Board Treatment Protocols



Review and Approval 11/7/2018, Effective 2/1/19, replaces all prior versions

### 2E.1 – SUPRAGLOTTIC AIRWAYS ADULT & PEDIATRIC

|                     |
|---------------------|
| EMT                 |
| EMT-INTERMEDIATE 85 |
| ADVANCED EMT        |
| PARAMEDIC           |

#### Indications:

1. Hypoxia and/or hypoventilation refractory to non-invasive airway/respiratory management.
2. Airway protection to reduce aspiration in the setting of sustained altered mental status with a Glasgow Coma Scale Score < 8.
3. Three unsuccessful oral and/or nasal intubation attempts in the above settings. An intubation attempt has occurred when the tip of the endotracheal tube is advanced beyond the gum line or into a nare. Attempts are counted per patient not per intubator. It is not necessary to first attempt intubation if a difficult airway is anticipated or visualized. A supraglottic airway may be used as the first-line airway in these cases.

#### Contraindications:

1. Ability to maintain oxygenation and ventilation by less invasive methods, such as Bag-Valve-Mask ventilation.
2. Intact gag reflex
3. Known esophageal disease
4. Ingestion of caustic substance (e.g. lye, acids) or extensive airway burns
5. Tracheotomy or laryngectomy
6. Suspected Foreign Body Airway Obstruction
7. (Relative Contraindication): Patient size outside of manufacturer recommended range for airway size used. The supraglottic airway may be utilized in such patients if the fit of the airway allows for appropriate oxygenation and ventilation of the patient.

#### Precaution:

**Medical literature indicates concerns regarding reduction in cerebral arterial flow and impedance of cerebral venous return due to pressure effects of supraglottic airways. Supraglottic airways should not be utilized when other methods of airway management are capable of achieving needed oxygenation/ventilation.**



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**PROTOCOL 2E.1: Supraglottic Airways – Adult & Pediatric, cont.**

### Technique (I-gel™):

| Patient Size                | I-gel™ Size | Color      | Nasogastric Tube Size |
|-----------------------------|-------------|------------|-----------------------|
| Neonate<br>2-5 kg           | 1           | Pink       | N/A                   |
| Infant<br>5-12 kg           | 1.5         | Light Blue | 10                    |
| Small Pediatric<br>10-25 kg | 2           | Grey       | 12                    |
| Large Pediatric<br>25-35 kg | 2.5         | White      | 12                    |
| Small Adult<br>30-60 kg     | 3           | Yellow     | 12                    |
| Medium Adult<br>50-90 kg    | 4           | Green      | 12                    |
| Large Adult<br>90+ kg       | 5           | Orange     | 14                    |



Illustration of Correct Placement I-gel™ Airway (Size 4 Shown)

### To prepare the I-gel™ Airway:

- Open the package and take out the protective cradle containing the device.
- Remove the accessory pack containing the lubricant and airway support strap from the protective cradle and place the support strap aside.
- Open the lubricant and place in cradle.
- Grasp the I-gel™ along the integrated bite block and lubricate the back, sides and front of the cuff with a thin layer of lubricant.
- When lubricant is applied take care to avoid the introduction of lubricant in or near the ventilation portal in the airway.

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**PROTOCOL 2E.1: Supraglottic Airways – Adult & Pediatric, cont.**

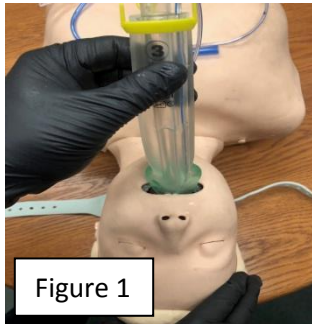


Figure 1

- Grasp the lubricated I-gel™ firmly along the integrated bite block (tube portion of the device). Position the device so that the I-gel™ cuff outlet is facing toward the chin of the patient. (Figure 1)
- The patient should be in the “sniffing” position, with head extended and neck slightly flexed forward. If cervical injury is suspected, use modified “jaw thrust” instead of any flexion at the neck. The chin should be gently pressed down/inferior before proceeding to insert the I-gel™.

- Introduce the leading soft tip into the mouth of the patient in a direction toward the hard palate.

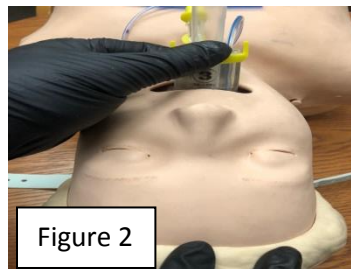


Figure 2

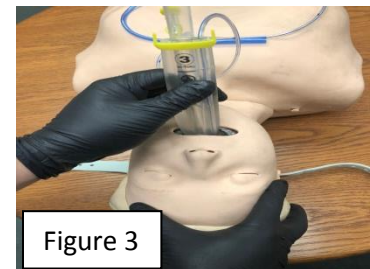


Figure 3

- Glide the device downwards and backwards along the hard palate with a continuous, but gentle push until a definitive resistance is felt. (Figure 2)
- **WARNING:** Do not apply excessive force on the device during insertion. It is not necessary to insert your fingers or thumbs into the oral cavity of the patient during insertion of the device. If there is resistance during insertion, a ‘jaw thrust’ and slight rotation of the device is recommended.

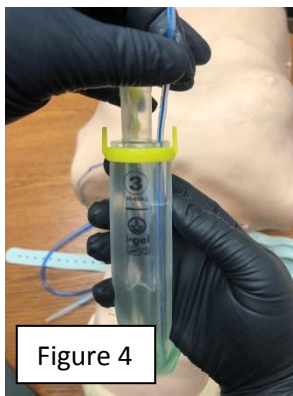


Figure 4

- At this point, the tip of the device should be located into the upper esophageal opening and the cuff should be located against the laryngeal framework. The incisors should be resting on the integrated bite block. (Figure 3)
- Confirm proper position by auscultation of epigastrium and chest and observing physiologic changes. Waveform capnography is not required though strongly recommended for ongoing ventilation and perfusion assessment.
- Preload NG tube in the side port after I-gel is in place, advance to appropriate position, apply suction to decompress the stomach. (Figure 4)
- Secure the tube with strap provided. (Figure 5)

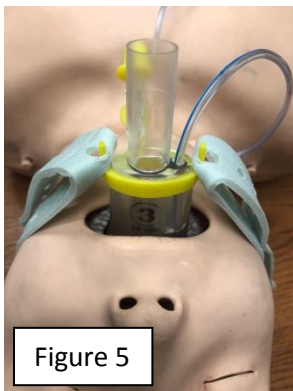


Figure 5



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### Removal of the I-gel™ Airway:

1. Ensure suctioning equipment is ready, roll patient onto left side
2. Carefully remove I-gel™ airway with gentle, but firm traction. Suction as needed.
3. Insert an oropharyngeal or nasopharyngeal adjunct, as needed  
Protocol Title: I-gel™ Airway Placement Procedure
4. Continue ventilations with a BVM at 10-15 LPM flow, as needed or place on non-rebreather mask at 10-15 LPM
5. Document time of removal and ongoing vitals

### Additional Information:

1. If unable to place an I-gel™ Airway in three attempts, utilize BVM ventilation.
2. Ventilation portal of the I-gel™ Airway must align with the laryngeal inlet for adequate oxygenation and ventilation. Insertion depth should be adjusted to optimize ventilation.
3. Preload the correct size NG tube prior to insertion. (NG will need to be lubricated prior to loading into I-gel™).
3. Most unsuccessful insertion attempts relate to the failure to keep the tube in a midline position during insertion.
4. Do not force the tube during insertion; this may result in trauma to the airway or esophagus.
5. Document any complications as well as all methods used to ensure appropriate placement of the I-gel™ Airway including auscultation of absence of epigastric sounds and presence of lung sounds, physiologic changes (chest rise and fall, improved oxygenation, condensation in I-gel™ Airway with exhalations), and waveform capnography readings (if applied).
6. Assess and document placement verification of the I-gel™ Airway after patient movement and periodically throughout care and transportation.
7. If strap is unavailable use tape as pictured below. (Figure 6)

