



Supraglottic Airway Device

ALS PROCEDURE AP-02

INDICATION	<ul style="list-style-type: none"> Patients who meet indications for Endotracheal Intubation AP-01; and one of the following, <ul style="list-style-type: none"> Patients, who after two (2) attempts with an ETT, have not been successfully intubated. Patients, who have a Cormack-Lehane Grade of 3 or 4. 																											
CONTRAINDICATION	KING TUBE		<u>I-GEL</u>																									
	<ul style="list-style-type: none"> Gag reflex. Caustic ingestion. Known esophageal disease (e.g. cancer, varices or stricture). Height < 4 feet. 		<ul style="list-style-type: none"> Gag reflex. Caustic ingestion. Known esophageal disease (e.g. cancer, varices or stricture). 																									
PROCEDURE	<ul style="list-style-type: none"> Use Waveform Capnography AP-12 throughout. Select the proper tube size. <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="background-color: yellow; width: 20px;"></td> <td style="text-align: center;"><u>3</u></td> <td style="text-align: center;">Small Adult</td> <td style="text-align: center;">4-5 feet</td> </tr> <tr> <td style="background-color: red; width: 20px;"></td> <td style="text-align: center;"><u>4</u></td> <td style="text-align: center;">Medium Adult</td> <td style="text-align: center;">5-6 feet</td> </tr> <tr> <td style="background-color: purple; width: 20px;"></td> <td style="text-align: center;"><u>5</u></td> <td style="text-align: center;">Large Adult</td> <td style="text-align: center;">> 6 feet</td> </tr> </table>			<u>3</u>	Small Adult	4-5 feet		<u>4</u>	Medium Adult	5-6 feet		<u>5</u>	Large Adult	> 6 feet	<ul style="list-style-type: none"> Use Waveform Capnography AP-12 throughout. Select the proper tube size. <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="background-color: yellow; width: 20px;"></td> <td style="text-align: center;">3</td> <td style="text-align: center;">Small Adult</td> <td style="text-align: center;">30-60kg</td> </tr> <tr> <td style="background-color: green; width: 20px;"></td> <td style="text-align: center;">4</td> <td style="text-align: center;">Medium Adult</td> <td style="text-align: center;">50-90kg</td> </tr> <tr> <td style="background-color: orange; width: 20px;"></td> <td style="text-align: center;">5</td> <td style="text-align: center;">Large Adult</td> <td style="text-align: center;">90+kg</td> </tr> </table>			3	Small Adult	30-60kg		4	Medium Adult	50-90kg		5	Large Adult	90+kg
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<ul style="list-style-type: none"> While preparing tube, have assistive personnel open the airway, and clear of any foreign objects. Pre-oxygenate with 100% oxygen. Test cuff inflation system by injecting the maximum recommended volume of air into the cuffs. Remove all air from both cuffs prior to insertion. Apply water soluble lubricant to the distal tip and posterior aspect (only) of the tube, taking care to avoid introduction of the lubricant into or near the ventilatory openings. Position patient into “sniffing position” if possible, otherwise head may be in a neutral position. Hold the tube at the colored connector with the dominant hand. With the non-dominant hand, hold open the patient’s mouth and apply a tongue-jaw lift (thumb into oral cavity, index finger under chin). 		<ul style="list-style-type: none"> While preparing tube, have assistive personnel open the airway, and clear of any foreign objects. Pre-oxygenate with 100% oxygen. Apply water soluble lubricant to the distal tip and posterior aspect (only) of the tube, taking care to avoid introduction of the lubricant into or near the ventilatory openings. Grasp the lubricated i-gel firmly along the integral bite block. Position the device so that the i-gel cuff outlet is facing towards the chin of the patient. Position patient into “sniffing position” with head extended and neck flexed. The chin should be gently pressed down before proceeding to insert the i-gel. Introduce the leading soft tip into the mouth of the patient in a direction towards the hard palate. 																										

PROCEDURE

- Rotate the tube 90° laterally, so that the blue orientation/x-ray line on the inside curve of the airway is touching the outer corner of the mouth, with the tube curving out.
- While advancing the tip of the tube across the tongue to its base, rotate the tube an additional 90° back to midline, so that the blue orientation line now faces the chin.
- Advance the tube until the base of the connector is aligned with the teeth or gums. Be sure to maintain the tip of the tube midline so as to advance it into the upper esophagus and not into the piriform fossa (blind pocket).
- Using a syringe, inflate the cuffs with the minimum volume necessary to seal the airway at the peak ventilatory pressure employed (“just seal” volume). Typical inflation volumes are as follows:
 - Size 3: 45-60 mL
 - Size 4: 60-80 mL
 - Size 5: 70-90 mL
- Attach a BVM. While gently bagging the patient to assess ventilation, carefully withdraw the airway until ventilation is easy and free flowing (large tidal volume with minimal airway pressure).
- Confirm proper position by auscultation, chest movement and verification of ETCO₂ by waveform capnography.
- If necessary, readjust cuff inflation to “just seal” volume as needed.
- Patients who have an advanced airway established should be secured with tape or a commercial device. Devices and tape should be applied in a manner that avoids compression of the front and sides of the neck, which may impair venous return from the brain.
- Glide the device downwards and backwards along the hard palate with a continuous but gentle push until a definitive resistance is felt.
- At this point the tip of the airway 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 integral bite-block.
- Attach a BVM. While gently bagging the patient to assess ventilation, carefully withdraw the airway until ventilation is easy and free flowing (large tidal volume with minimal airway pressure).
- Confirm proper position by auscultation, chest movement and verification of ETCO₂ by waveform capnography.
- The i-gel should be taped down from ‘maxilla to maxilla
- Patients who have an advanced airway established should be secured with tape or a commercial device. Devices and tape should be applied in a manner that avoids compression of the front and sides of the neck, which may impair venous return from the brain.

KEY CONCEPTS

- If placement is unsuccessful, remove tube, ventilate via BVM and repeat sequence of steps.
- If unsuccessful on second attempt, BLS airway management should be resumed.
- If BLS airway management is unsuccessful, perform [Needle Cricothyrotomy AP-03](#).
- Most unsuccessful placements relate to failure to keep tube in midline during placement.
- Cuffs can be lacerated by broken teeth or dentures. Remove dentures before placing tube.
- Do not force tube, as airway trauma may occur.