



Clinical Practice Procedures: Airway management/Supraglottic airway – i-gel®

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Date	December, 2022
Purpose	To ensure a consistent procedural approach to supraglottic airway – i-gel®.
Scope	Applies to Queensland Ambulance Service (QAS) clinical staff.
Health care setting	Pre-hospital assessment and treatment.
Population	Applies to all ages unless stated otherwise.
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Author	Clinical Quality & Patient Safety Unit, QAS
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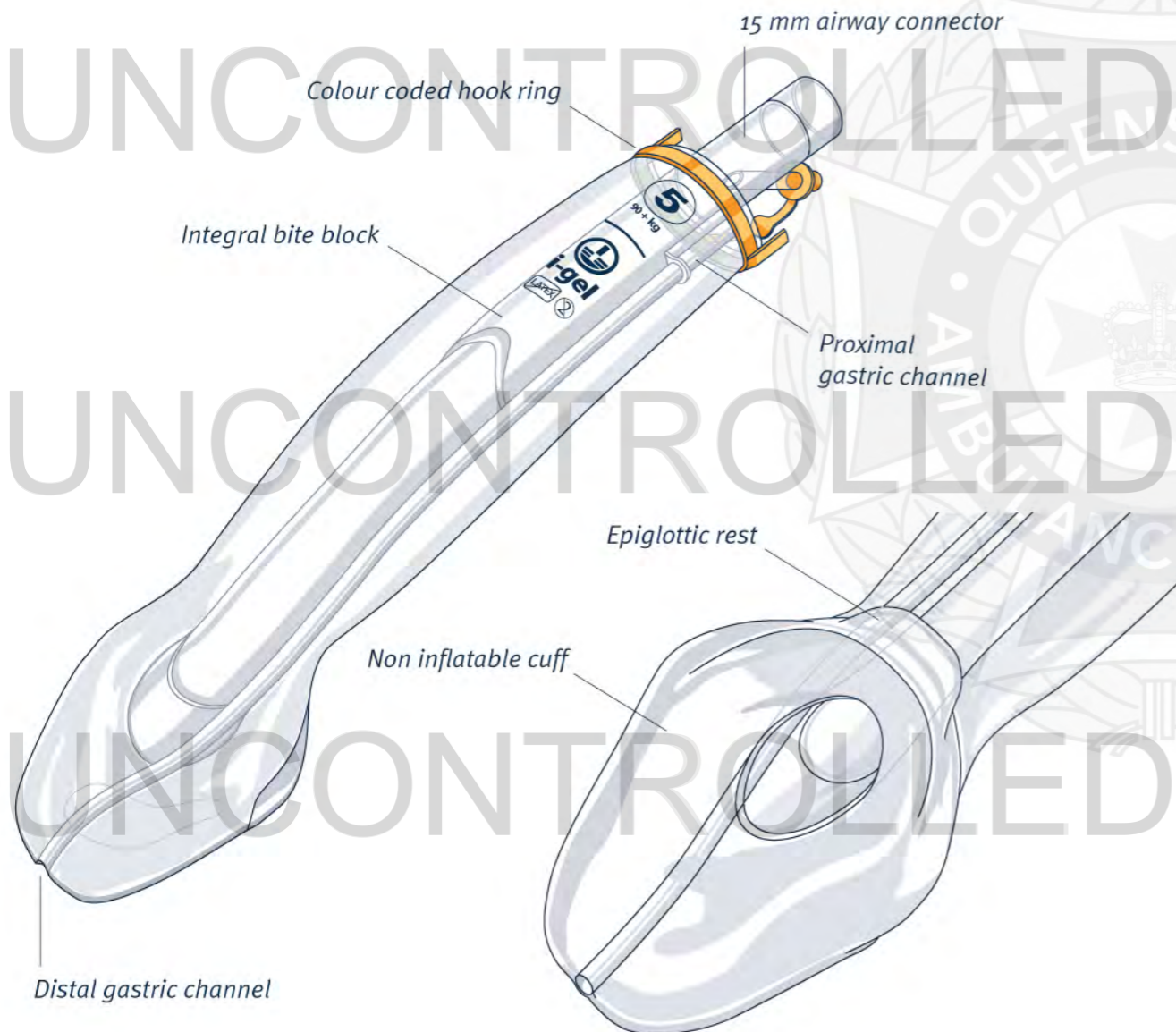
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Supraglottic airway – i-gel®

December, 2022

The i-gel® is a second generation supraglottic airway device used extensively in resuscitation and anaesthesia. Made from a medical grade thermoplastic elastomer, i-gel® has been designed to create a non-inflatable, anatomical seal of the pharyngeal, laryngeal and perilaryngeal structures while avoiding compression trauma.^[1]

A gastric channel facilitates venting and active suctioning by inserting an appropriately sized orogastric tube.



Indications

- Actual loss of airway patency and/or airway protection.

Contraindications

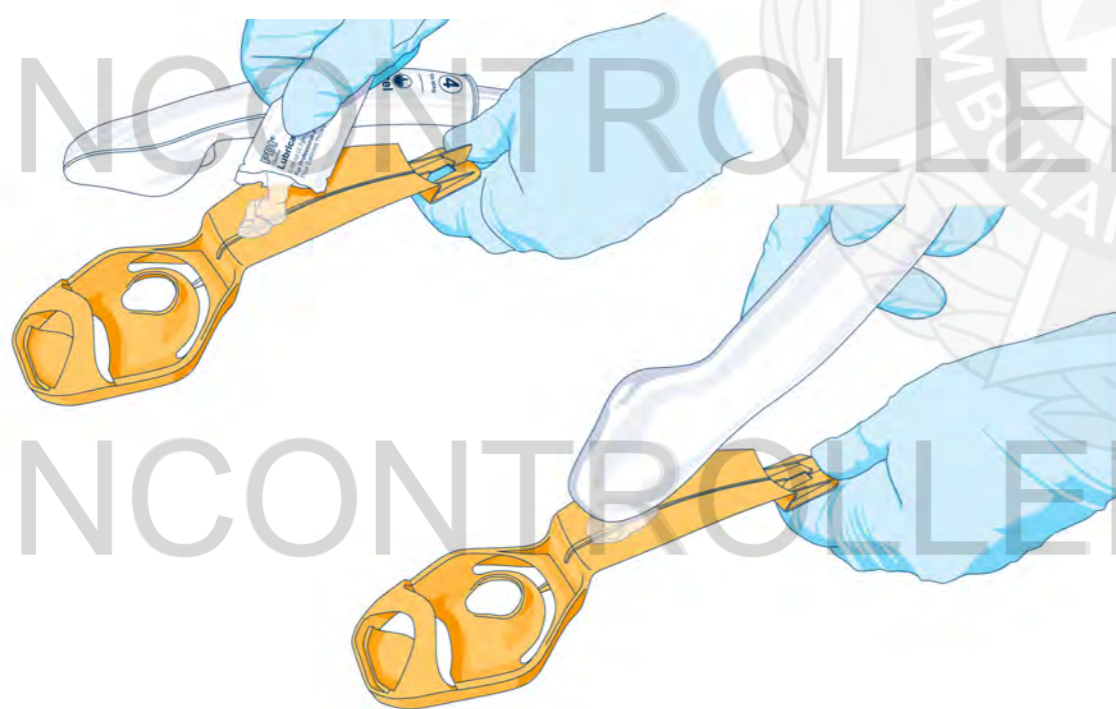
- Conscious breathing patients
- Continuous use for > 4 hours

Complications

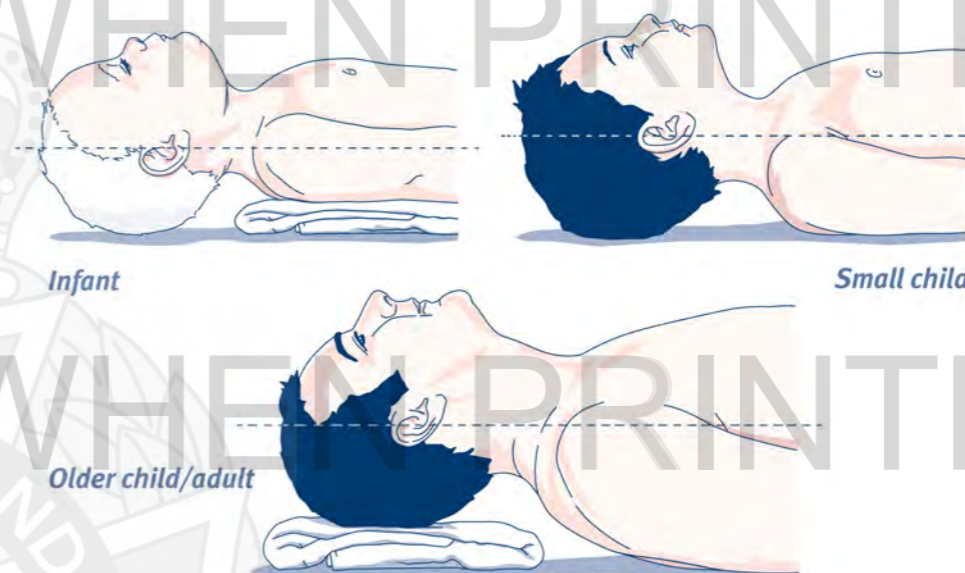
- Failure to provide adequate airway or ventilation
- Patient intolerance
- Hypoxia
- Can precipitate vomiting and aspiration in a patient with intact airway reflexes
- Oropharyngeal trauma

Insertion

1. Apply required infection control measures (refer to the *QAS Infection Control Framework*).
2. Prepare the necessary equipment.
3. If available, slide the airway support strap under the patient's neck until the wide central band of the strap is located directly under the patient's neck.
4. Remove the i-gel[®] from the protective cradle.
5. Inspect the i-gel[®] to ensure that all surfaces are intact, the gastric channel is patent, and the supplementary oxygen port is firmly closed with the supplied integral cap.
6. Place half of the lubricant on the inner surface of the protective cradle's neck.
7. Gently lubricate the back, sides and front of the i-gel[®] cuff.



8. Place the patient's head in the sniffing position to align the oral, pharyngeal and laryngeal axis (neutral position with MILS if c-spine injury suspected). For larger adults elevation of the head may also be required.

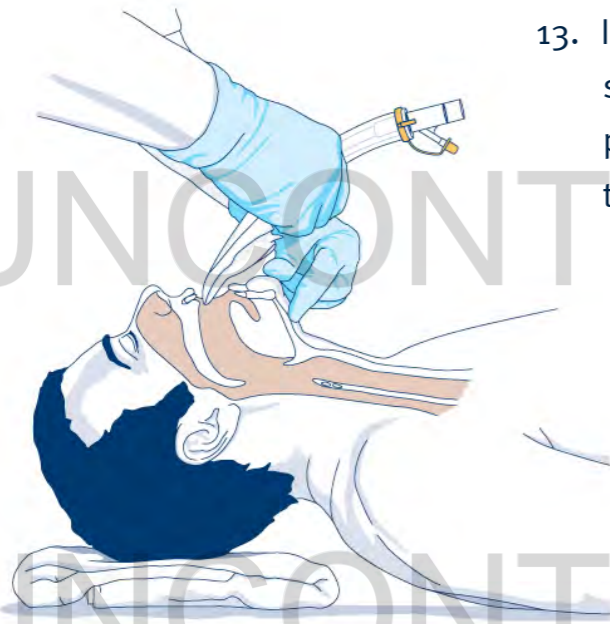


9. Open the patient's mouth and inspect the oral cavity.
10. Remove any obvious denture/s or removable plates from the mouth.
11. With the dominant hand, grasp the i-gel[®] along the integrated bite block with the cuff outlet facing toward the chin of the patient.
12. With the non-dominant hand, open the patient's mouth by gently pressing the chin.



Procedure – Supraglottic airway – i-gel®

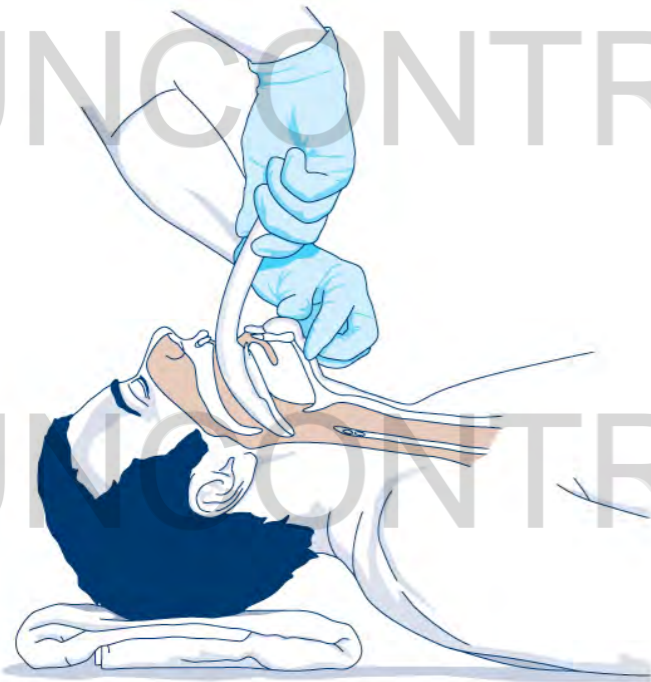
13. Introduce the i-gel's® leading soft tip into the mouth of the patient in a direction toward the hard palate.



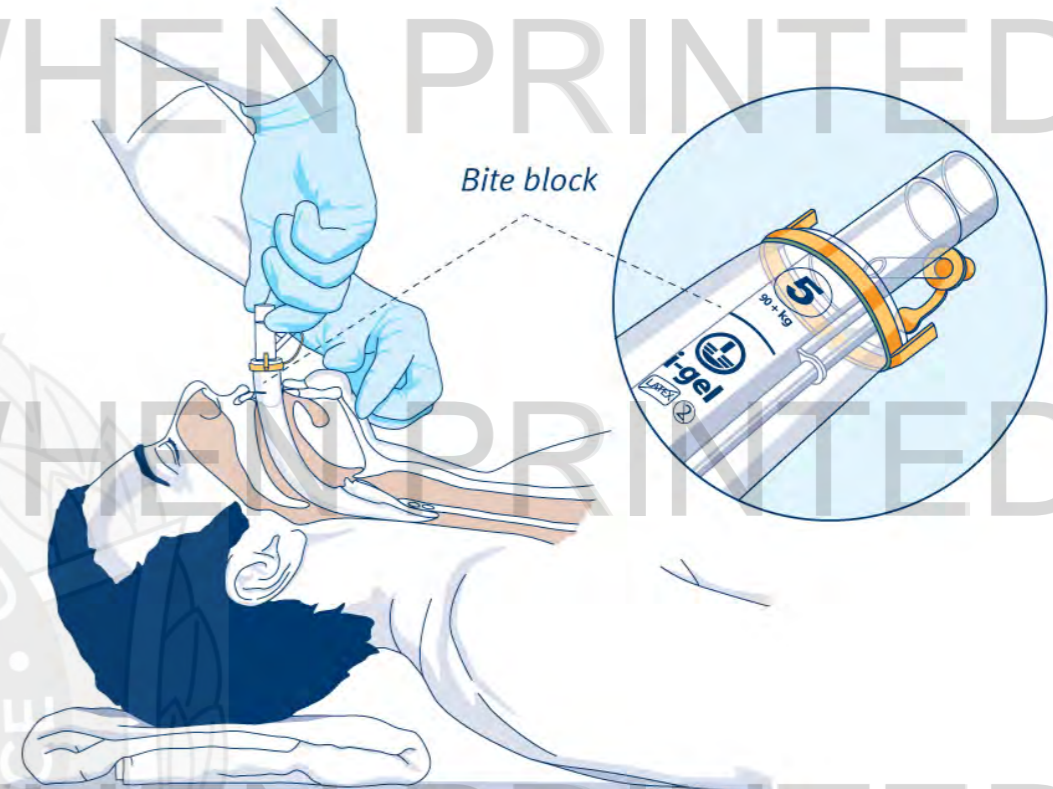
14. If early resistance is felt, the use of the triple airway manoeuvre or 'insertion with deep rotation' is recommended.



15. Glide the i-gel® downwards and backwards along the hard palate with a continuous but gentle push until a definitive resistance is felt. It is not necessary to insert fingers into the patient's mouth to insert the i-gel®.



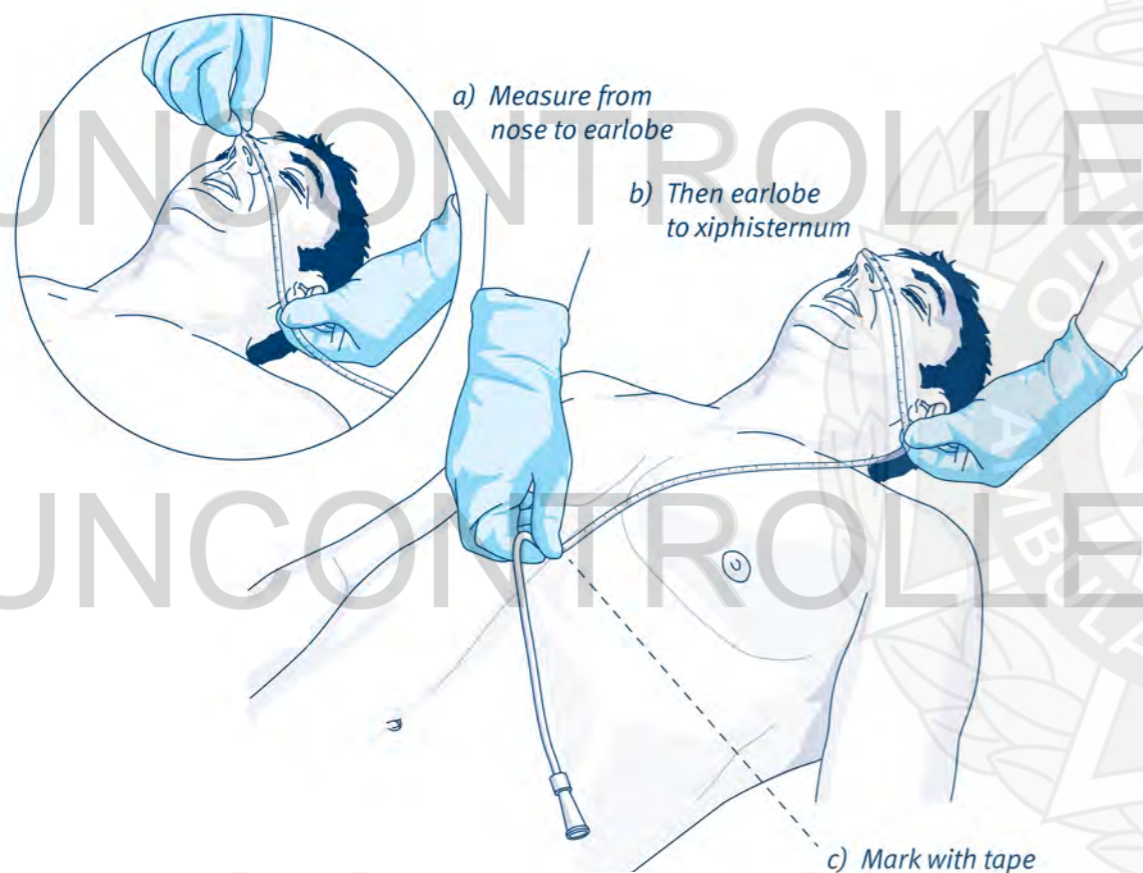
16. Confirm the correct i-gel® position and that the patient's incisors are resting on the bite block.



17. Tape from 'maxilla to maxilla' or with the supplied airway support strap. Ensure there is enough tension to hold the i-gel® in place, without causing trauma to the patient's neck or face or unwanted downward pressure on the i-gel®. The airway support strap should only be used on patients in the supine position.

Procedure – Supraglottic airway – i-gel®

18. Attach a bag valve ventilation device to the rigid airway port and check for airway patency by ventilating as clinically indicated.
19. Once effective ventilation has been established, consider inserting a gastric tube to assist with gastric decompression. Measure the length of the gastric tube from the tip of the patient's nose to the earlobe and then to the xiphisternum and mark the desired length of the tube with a piece of tape.



20. Using a generous amount of the remaining lubricant, thoroughly lubricate the gastric tube and gastric port, place a small bolus of lubricant over the gastric port channel, insert the gastric tube a short way down the channel and move the gastric tube up and down to prime the channel.

21. To insert the gastric tube, pass the tube down the gastric port channel of the i-gel® until the marker is adjacent to the gastric port inlet.
22. Connect the gastric tube to the suction tubing and perform intermittent suctioning as required.

Removal

1. If appropriate, place the patient in the lateral position.
2. Remove the tape securing the i-gel®.
3. Gently remove the gastric tube from the i-gel® gastric port.
4. Remove the i-gel® (if possible this should be performed during patient exhalation or when coughing).
5. Suction the airway as required.



+ Additional information

- The QAS supplies a pre-packaged i-gel® O₂™ Resus Pack for adults (size 3–5) containing:
 - i-gel® with supplementary oxygen port;
 - water-based lubricant;
 - airway support strap; and
 - 12 FG suction catheter.
- The 12 FG suction catheter should be connected to suction tubing using a standard tubing connector (via QAS stores: Stock # 10060826)
- The supplemental oxygen port is designed for passive oxygenation as a component of cardio-cerebral resuscitation – this port must not be used by QAS ambulance clinicians.
- i-gel® SADs in sizes 1, 1.5, 2 & 2.5 are supplied as standalone products.
- ACP1, ACP2 & CCP ambulance paramedics are authorised to perform gastric decompression with the 12-FG suction tube (supplied in the i-gel® O₂™ Resus Packs) if clinically required.
- The size 1 i-gel® SAD does not contain a gastric channel.
- The use of medical gloves is not a substitute for hand hygiene. Hand hygiene should be performed before donning and after doffing medical gloves and immediately before and after any procedure.
- Eye protection must be worn by all clinicians. The potential of blood and body fluids exposure (especially to the face and eyes) during this procedure is **HIGH**.
- To prevent injury to the patient, clinicians must ensure only a correctly sized and lubricated device is used.

- If there is failure to achieve complete insertion after following the technique described above, then an i-gel® device one size smaller should be used.
- Excessive air leakage during manual ventilation is primarily due to sub-optimal depth of i-gel® insertion.
- The use of PEEP with an i-gel® may affect the accuracy of end tidal CO₂ (EtCO₂) readings, or cause the loss of the capnography waveform altogether, due to an increase in airway pressures.

QAS supplies the i-gel® supraglottic airway™ in the following sizes:

Size	Weight guide	Suggested population	OG Tube (FG)
1	2–5 kg	Neonate	N/A
1.5	5–12 kg	Infant	10
2	10–25 kg	Small paediatric	12
2.5	25–35 kg	Large paediatric	12
3	30–60 kg	Small adult	12
4	50–90 kg	Medium adult	12
5	> 90 kg	Large adult	14