Fibreoptic Guided Tracheal Intubation Through Supraglottic Airway Device (SAD) Using an Airway Exchange Catheter in Children

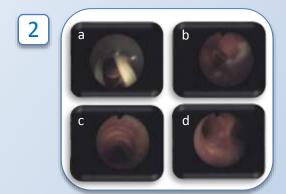
This technique is for intubating through a SAD when the Aintree Intubation Catheter is too large for the patient. The technique is NOT suitable for airway rescue, and should be performed as a controlled, stepwise process. It is described here in children, but can also be used in the adult population with narrow airway diameter.

- Ensure SAD is in place. Give 100% oxygen
- Confirm adequate anaesthesia, ventilation and neuromuscular blockade
- Attach 15mm bronchoscopic swivel connector (with port) to the SAD and attach the anaesthesia circuit
- Select an appropriate size* of airway exchange catheter (AEC) and endotracheal tube (ETT). The ETT should not be cut
- Load the ETT onto the fibrescope, lubricating the outer surface of each

*See guide at foot of document



With the SAD immobilised by an assistant, introduce the fibrescope through the top port of the swivel connector and advance.



Sequentially visualise SAD aperture bars (a), if present, glottis (b), tracheal rings (c) and carina (d). Insert the ETT into the trachea through the SAD, using direct vision to position the tip of the ETT in the mid-tracheal point. **Never advance beyond carina**. Remove fibrescope and confirm ventilation with capnography.



Leaving SAD in place, connect circuit to ETT and ventilate via ETT.

Once the ETT is in place, the patient can be ventilated via the ETT without removing the SAD. In some cases this may be the safest option. If a change of ETT is indicated (e.g. for upsizing), then the following steps 4 - 7 can be followed to achieve this.



Disconnect anaesthesia circuit and insert *lubricated* AEC through the ETT, being careful not to advance beyond previously measured ETT depth.



Taking care not to advance the AEC, apply counter pressure to the AEC, remove both the SAD and ETT and leave the AEC in place.



Using a laryngoscope, railroad the desired size of ETT over the AEC, maintaining a 'tip anterior' orientation.



Remove the AEC, confirm ventilation with capnography and, if possible, confirm final position of ETT with fibrescope.

* Selecting Appropriate Size of airway exchange catheter

- The AEC must fit down the interior of the ETT, and the ETT must fit down the interior of the SAD
- Cook 8 FR AEC will fit ETT down to 3.0 ID
- Cook 11 FR AEC will fit ETT down to 4.0 ID
- Cook 14 FR AEC will fit ETT down to 5.0 ID

N.B. Oxygen can be delivered via the AEC in situations where railroading of the ETT is prolonged Oxygenation via this route is sub-optimal and should only be undertaken with great care. Refer to manufacturer's guidelines for methods of oxygen delivery.

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