AIDAA 2016 Guidelines for Tracheal Intubation in the Intensive Care Unit

**STEP 1: Preoxygenation and induction of anaesthesia**
- Two persons (one experienced)
- Optimise preoxygenation with one of the following:
  - Noninvasive ventilation with 100% O₂, pressure support of 5-10 cm H₂O with PEEP of 5 cm H₂O for 3 minutes (nasal cannula with O₂ flow at 15 L/min)
  - HFNC O₂ therapy
  - Induction - Etomidate or Ketamine with Succinylcholine (if not contraindicated) or Rocuronium
  - Use cricoid pressure
  - IPPV with bag-valve mask with reservoir bag (use external PEEP valve set to 5-10 cm H₂O if available) / IPPV with PEEP using the ventilator

**CALL FOR HELP**
- Face mask ventilation unsuccessful
- Face mask ventilation successful

**STEP 2: Laryngoscopy and tracheal intubation**
- Continue nasal oxygen using O₂ flow at 15 L/min OR HFNC O₂
- Direct/video laryngoscopy
- Maximum two attempts (repeat attempts only if SpO₂ ≥ 95%)
- Mask ventilation between attempts
- Optimise position, use external laryngeal manipulation, release cricoid pressure, use bougie/stylet if required
- Consider changing device/technique/operator between attempts
- Maintain depth of anaesthesia

**Failed Intubation**

**STEP 3: Insert SAD to maintain oxygenation**
- Continue nasal oxygen using O₂ flow at 15 L/min OR HFNC O₂
- Preferably use second generation SAD
- Maximum two attempts (only if SpO₂ ≥ 95%)
- Mask ventilation between attempts
- Consider changing size or type of SAD
- Maintain depth of anaesthesia

**Failed ventilation through SAD**

**STEP 4: Rescue face mask ventilation**
- Continue nasal oxygen using O₂ flow at 15 L/min OR HFNC O₂
- Ensure neuromuscular blockade
- Final attempt at face mask ventilation using optimal technique and adjuncts

**Failed ventilation**

**STEP 5: Emergency cricothyroidotomy**
- Continue nasal oxygen using O₂ flow at 15 L/min OR HFNC O₂ and efforts at rescue face mask ventilation
- Perform one of the following techniques
  - Surgical cricothyroidotomy
  - Wide bore cannula cricothyroidotomy
  - Needle cricothyroidotomy (use pressure regulated jet ventilation and attempt to keep the upper airway patent)

**CALL FOR ADDITIONAL HELP**

**Post - procedure plan**
1. Further airway management plan
2. Treat airway edema if suspected
3. Monitor for complications
4. Counselling and documentation

This flow chart should be used in conjunction with the text:
- FOB = Fibreoptic bronchoscope
- PEEP = Positive end-expiratory pressure
- HFNC = High flow nasal cannula
- PIPV = Intermittent positive pressure ventilation
- O₂ = Oxygen
- SpO₂ = Oxygen saturation
- SAD = Supraglottic airway device
- FOB = Fibreoptic bronchoscope