AIDAA 2016 Guidelines for the Management of Unanticipated Difficult Tracheal Intubation in Obstetrics

CALL FOR HELP

STEP 1: Laryngoscopy and tracheal intubation

Unable to intubate at first attempt with direct/video laryngoscopy during modified rapid sequence induction

- Continue nasal oxygen using O_2 flow at 15 L/min
- One more attempt at intubation (only if $SpO_2 \geq 95\%$)
- Mask ventilation between attempts using gentle IPPV with APL valve closed to ≤ 20 cm H_2O
- Partial/complete release of cricoid pressure if mask ventilation is inadequate
- Optimise position, partial/ complete release of cricoid pressure, external laryngeal manipulation to optimise view and use bougie / stylet if required
- Consider changing device/ technique/ operator between attempts
- Maintain depth of anaesthesia

Succeed → Confirm tracheal intubation using capnography

Failed Intubation ↓

STEP 2 : Insert SAD to maintain oxygenation

- Continue nasal oxygen using O_2 flow at 15 L/min
- Preferably use second generation SAD
- Remove cricoid pressure during insertion
- Maximum two attempts (only if $SpO_2 \geq 95\%$)
- Consider changing size or type of SAD
- Maintain depth of anaesthesia

Succeed →

Consider one of the following options:

1. Continue anaesthesia using SAD if considered essential
2. Intubate through the SAD if maternal safety dictates need using a FOB only, provided expertise is available
3. Consider awakening the mother if foetal and maternal conditions are stable

Failed Ventilation through SAD ↓

STEP 3: Rescue face mask ventilation

- Continue nasal oxygen using O_2 flow at 15 L/min
- Ensure neuromuscular blockade
- Final attempt at face mask ventilation using optimal technique and adjuncts

Succeed →

Consider one of the following options:

1. Continue anaesthesia if surgery is considered essential
2. Consider awakening the mother if foetal and maternal conditions are stable

Complete Ventilation Failure ↓ **CALL FOR ADDITIONAL HELP**

STEP 4 : Emergency cricothyroidotomy

- Continue nasal oxygen using O_2 flow at 15 L/min 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)

Succeed →

Post-procedure plan

1. Further airway management plan
2. Treat airway oedema if suspected
3. Monitor for complications
4. If mother has been awakened, proceed under central neuraxial block or general anaesthesia following awake fibreoptic intubation
5. Counselling and documentation

Failed oxygenation ↓ **Advanced life support**

Perimortem caesarean delivery

If situation deteriorates into maternal cardiac arrest, perform perimortem caesarean delivery within 4 minutes of cardiac arrest

This flow chart should be used in conjunction with the text

APL= Adjustable pressure limiting
FOB = Fibreoptic bronchoscope
IPPV = Intermittent positive pressure ventilation
O_2= Oxygen
SAD = Supraglottic airway device
SpO_2 = Oxygen saturation

Ramkumar V, Dinesh E, Shetty SR, Shah A, Kuncra P, Das S, Myatra SN,Ahmed SM, Divatia JV, Patwa A, Garg R, Raveendra US,Doctor JR, Pawar DK,Ramesh S. All India Difficult Airway Association 2016 guidelines for the management of unanticipated difficult tracheal intubation in obstetrics.
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