# Failed intubation, increasing hypoxaemia and difficult ventilation in the paralysed anaesthetised patient: Rescue techniques for the "can't intubate, can't ventilate" situation

failed intubation and difficult ventilation (other than laryngospasm)

**Face mask**
**Oxygenate and Ventilate patient**
Maximum head extension
Maximum jaw thrust
Assistance with mask seal
Oral ± 6mm nasal airway
Reduce cricoid force - if necessary

failed oxygenation with face mask (e.g. $SpO_2$ < 90% with $FiO_2$ 1.0)

**call for help**

LMA™ Oxygenate and ventilate patient
Maximum 2 attempts at insertion
Reduce any cricoid force during insertion

succeed → Oxygenation satisfactory and stable: Maintain oxygenation and awaken patient

"can't intubate, can't ventilate" situation with increasing hypoxaemia

**Plan D:** Rescue techniques for "can't intubate, can't ventilate" situation

or

## Cannula cricothyroidotomy

Equipment: Kink-resistant cannula, e.g.
Patil (Cook) or Ravussin (VBM)
High-pressure ventilation system, e.g. Manujet III (VBM)

Technique:

1. Insert cannula through cricothyroid membrane
2. Maintain position of cannula - assistant's hand
3. Confirm tracheal position by air aspiration - 20ml syringe
4. Attach ventilation system to cannula
5. Commence cautious ventilation
6. Confirm ventilation of lungs, and exhalation through upper airway
7. If ventilation fails, or surgical emphysema or any other complication develops - convert immediately to surgical cricothyroidotomy

fail →

## Surgical cricothyroidotomy

Equipment: Scalpel - short and rounded (no. 20 or Minitrach scalpel)
Small (e.g. 6 or 7 mm) cuffed tracheal or tracheostomy tube

4-step Technique:

1. Identify cricothyroid membrane
2. Stab incision through skin and membrane
   Enlarge incision with blunt dissection (e.g. scalpel handle, forceps or dilator)
3. Caudal traction on cricoid cartilage with tracheal hook
4. Insert tube and inflate cuff

Ventilate with low-pressure source
Verify tube position and pulmonary ventilation

Notes:
1. These techniques can have serious complications - use only in life-threatening situations
2. Convert to definitive airway as soon as possible
3. Postoperative management - see other difficult airway guidelines and flow-charts
4. 4mm cannula with low-pressure ventilation may be successful in patient breathing spontaneously

Difficult Airway Society guidelines Flow-chart 2004 (use with DAS guidelines paper)