

EMERGENCY AIRWAY MANAGEMENT

PREPARE TEAM

Call for help!

What do we know?
What do we expect?
Assign roles

PREPARE PATIENT

CODE STATUS?

Position

- Head & torso elevated, if possible
- Auditory meatus at sternal notch, with face parallel to ceiling/body
 - High BMI: ramp up, reverse Trendelenburg + foot rest
 - Dentures?

IN for BVM, OUT for intubation

Predict

HARD TO VENTILATE? BOOTS

Beard - Old - OSA - no Teeth - Stridor

HARD TO INTUBATE? LEMON

Look externally - Evaluate 3-3-2 - Mallampati - Obstruction - Neck movement

Pre-Oxygenate (goal > 95%)

- NP + NR Mask, both at 15 L/min
- deep breaths x 8, or 3 min. of regular breathing
- +/- BVM + PEEP to achieve target

RESUSCITATE BEFORE YOU INTUBATE!

HYPOXIA

NP @ 15 LPM
NRM @ 15LPM
+/- BVM + PEEP
Combative? -> DSI*

HYPOTENSION

- Give NS +/- Blood
- Push-dose pressor on hand
- NOREPI drip ready (+/- IO/Central line)

CHF/COPD/ASTHMA

IDEALLY,
DO NOT INTUBATE!
Try **NPPV** first
(+/- Ketamine sedation)

ELEVATED ICP

MUST AVOID:
SBP < 90
Sat < 90%
Hypercapnia
(aim for pCO2 35-40)

METABOLIC ACIDOSIS

NEVER LET THE PATIENT GO APNEIC!
Awake Intubation OR
Continue to ventilate during induction/paralysis (RR 12)
Once intubated, increase RR to 30

EQUIPMENT = "MIDSOLES"

Monitors (cardiac, pulse Ox, CO2, BP cycle q5min)

IV x 2, IO if need be

Drugs (see **MEDICATIONS FOR INTUBATION** sheet)

Suction x 2, under head of bed

O2 (NP + NRM @ 15 LPM, BVM + PEEP, KING Airway)

Laryngoscope +/- video-laryngoscope, tested

ET tubes (7.5 and 8.0 + 10mL syringe; test + lube cuffs)

Stylet & Securing device/tape for ET tube

Surgical airway equip. (#10 scalpel, Bougie, 6.0 ET tube)

For pediatric patients, use **Broselow Tape** or **Pedi STAT App**

*DSI = DELAYED SEQUENCE INTUBATION:

Ketamine 1mg/Kg (+ 0.5mg/Kg prn) to settle agitated patient, to facilitate resuscitation prior to intubation

COCKPIT CHECK: Patient positioned, O2 > 95%, BP optimized, equipment + meds ready?

VERBALIZE PLAN A, B, C & Perform the Laryngeal Handshake

NIPPV

INDICATIONS: CHF, COPD, Asthma

AVOID/CAUTION: reduced LOC, upper airway obstruction, face/skull #, untreated pneumothorax, hemodynamic instability

AVOID: peak inspiratory pressures > 20

Select NPPV on LTV 1200 Ventilator:

Press "Assist/Ctrl, SIMV/CPAP, NPPV" four times, until "NPPV" is flashing green and "SIMV/CPAP" is solid green.

For BPAP: start with "Pres. Support" (PS) = 5 and "PEEP" = 5 (note: IPAP = PS + PEEP = 10)

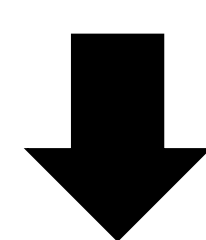
For CPAP: start with PEEP = 5

Set FiO2 and backup RR

RSI

PRETREATMENT?)

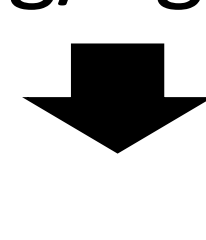
Atropine 0.02mg/Kg (< 1 yr old)



3 minutes

INDUCTION

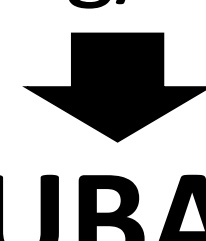
Ketamine 0.5-2mg/Kg (if hypotensive)
Propofol 1-2mg/Kg (if hypertensive)



1 minute

PARALYSIS

Rocuronium 1.2mg/Kg
Consider 2mg/kg if in shock



45-60 sec

INTUBATION

confirm success



POST-INTUBATION

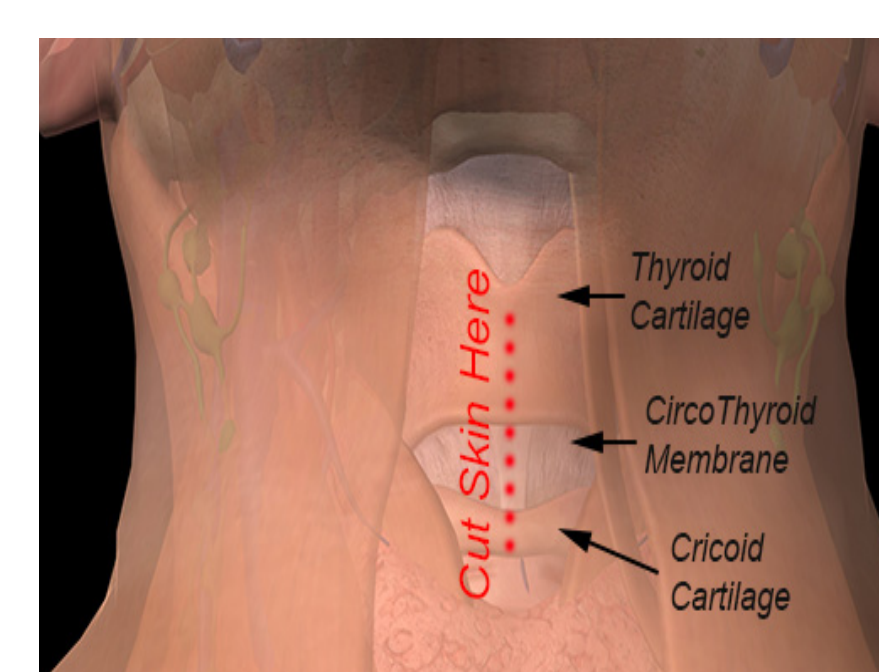
Analgesia before Sedation
Post-intubation checklist

AWAKE

For predicted difficult intubations, with a *cooperative* patient

1. Suction mouth and dry tongue with gauze
2. Trap tongue with gauze + pull out, then apply 1 inch of the 5% lidocaine ointment with tongue depressor as posterior as possible so that it 'melts' down the posterior slope of the tongue
3. Spray the tongue, tonsillar regions, posterior pharynx generously with atomized lidocaine 4%
4. Repeat step 2 with another dose of 5% lidocaine ointment
5. Warn the patient that the next bit of spray may make them feel short of breath. Reassure them!
6. Preoxygenate, position +/- restrain arms
7. Trap and pull out the tongue. Use atomized 4% lidocaine to spray the posterior tongue and glottis. Repeat x1.
8. Sedate with IV ketamine 10-20 mg aliquots
6. Visualize chords and perform 3 glottic/tracheal sprays during inspiration
7. Insert ETT or Bougie (then ETT), and fully sedate +/- paralyze patient

SURGICAL



1. Make generous VERTICAL cut, as depicted
2. Feel for cricothyroid membrane
3. Make HORIZONTAL cut through the membrane
4. Feel for tracheal lumen, insert Bougie
5. Insert 6-0 cuffed ET tube over Bougie
6. Remove Bougie
7. Bag to confirm position, secure ET tube