

# Airway Management Protocols during COVID - 19

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#### **CHECKLIST**

- Facemask 2, 3, 4 & 5
- VL CMAC / McGrath
- **Direct Laryngoscope**
- All blades including D
- Stylet and bougie
- ETT (PVC) sizes 5.5 to 8.5 mm ID
- Guedels and Nasal **Airways**
- I-gel, Proseal LMA
- HME / Viral filter
- Catheter mount
- Tube fixation
- Plastic cover/acrylic box
- Suction catheters : 12/14/16
- **Closed suction catheter**
- Suction machine
- Check ventilator settings
- Clamp for ETT
- Monitoring : ECG, NIBP, SpO<sub>2</sub>, EtCO<sub>2</sub>
- **Cricothyrotomy set:** Scalpel, Bougie, size 6 cuffed ETT
- Ambu bag
- Nasal prongs

#### **DRUGS REQUIRED**

- Induction : propofol, etomidate, ketamine, fentanyl
- Muscle relaxant: Succinylcholine, rocuronium
- Atropine : 5 ml of 0.12 mg/ml
- Adrenaline: 10 ml of 1:100 conc.
- Vasopressors:

Mephentermine / Norad

- 2% lignocaine jelly
- **MDI Asthalin inhaler**
- Xylocard, Ondansetron

### INTUBATION

#### DOS



Consider in all

cases: High

**Risk Procedure** 

**Use Acrylic** 

**Aerosol Box with** 

**Transparent Sheet** 



**Keep Appropriate Size** 

**Lubricated Cuffed ETT** 

Ready (if using Bougie,

**Preload on ETT)** 



**Limit Personnel** during Intubation



**Most Experienced Anaesthetist to** Intubate

2-Handed 2-Person

**Mask Ventilation With** 

**VE-grip**, not **CE-grip** 



**Patient** enters with Mask On



**Use HME** Viral filter

### DON'Ts







15 - 20 SECS

DON'T PROLONG INTUBATION TIME, **LIMIT TO 15-20 SECS** 

**AVOID DISCONNECTIONS: USE CLAMP BEFORE DISCONNECTION, PUSH-TWIST AND CHECK ALL CONNECTIONS** 



DO NOT VENTILATE BEFORE CUFF **INFLATION** 

## INTUBATION SEQUENCE











Plan D : Emergency Front

Of Neck Access (FONA)

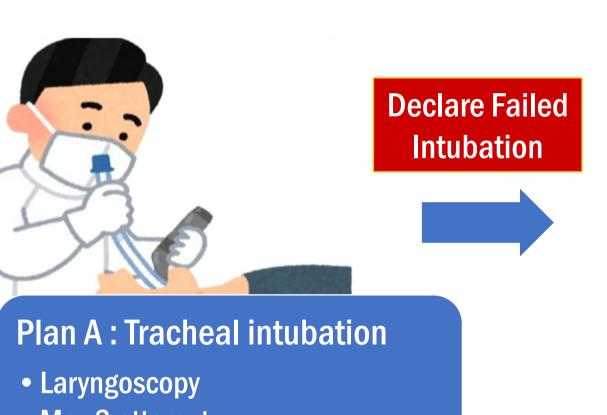
• Use FONA set: Scalpel

Cricothyrotomy

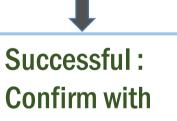
Extend Neck

• NM blockade

### DIFFICULT AIRWAY MANAGEMENT



- Max 3 attempts
- Full NM blockade
- VL +/- Bougie/Stylet
- External laryngeal manipulation



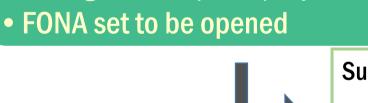
capnography

- First Failure:
- Call for HELP FONA set ready



Plan B/C: Rescue Oxygenation

- Second generation SAD and ventilate ⇔ Face mask (use 2-person technique /adjuncts)
- Max 3 attempts each: Change device / size / operator



**Successful: Options are** 1) wake patient if planned 2) Intubate via SAD X 1 3) FONA

**Declare CICO** 

# **EXTUBATION**

### Preparation

- Assess patient's risk & suitability for extubation, Minimize staff exposure, Staff involved should don PPE
- Analgesia, prophylactic anti-emetics, Xylocard / Fentanyl to minimize bucking / coughing / agitation
- Use aerosol box, perform Ryle's tube suction and oral suction with caution









Procedure

Mask-Over-Tube Extubation Technique – (a) ETT positioned at one corner of mouth with fixation removed. (b) Facemask with filter positioned to create seal over face and ETT, cuff deflated (c) Assistant withdraws ETT from under the side of facemask using 2 hand technique. (d) ETT detached and circuit connected to second filter on the facemask

• Use nasal prongs for O<sub>2</sub> supplement, place a surgical mask on the patient, Staff members should confirm integrity of PPE

• Patient should be handed over to another member outside the room and the personnel involved in extubation should proceed to doffing, not accompany the patient

- Ventilation circuits, humidifiers, and CO<sub>2</sub> absorbent should be discarded after single use
- All anaesthesia equipment & surface should be decontaminated before and after each procedure
- The room requires 30 min holding time after extubation
- When the anesthesia circuit needs to be disconnected from patient end, disconnect leaving HME filter attached to ET tube and clamp ET tube
- If laryngospasm occurs consider early use of drugs and minimize positive pressure ventilation by bag-mask
- If apnea occurs give bag-mask ventilation holding mask with 2 hands, assistant should do bagging, delivering low tidal volume & low pressure

### Post-**Extubation**

Concerns