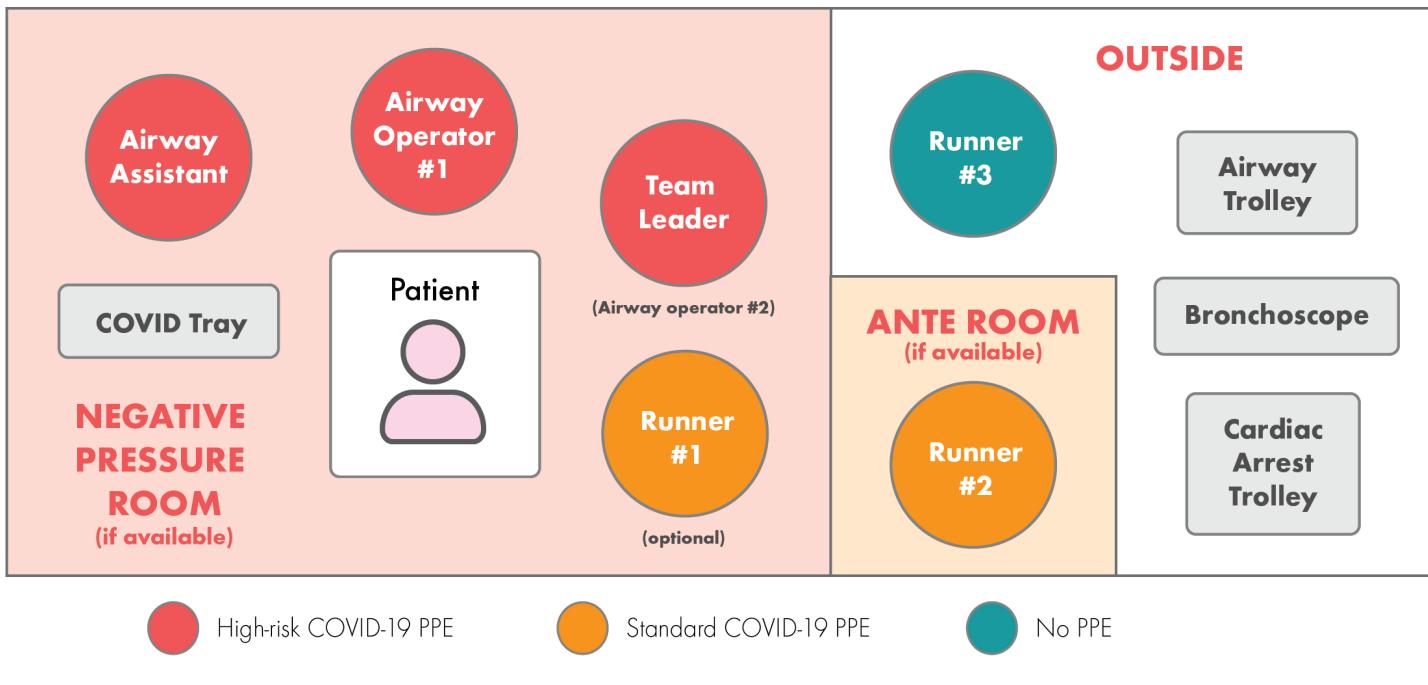




SAFE AIRWAY SOCIETY

COVID-19 AIRWAY MANAGEMENT

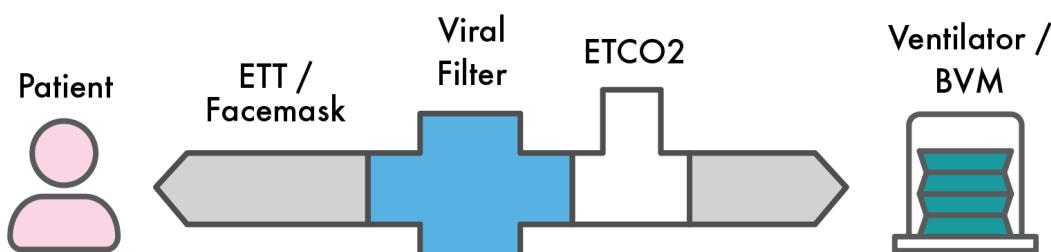
Team Members



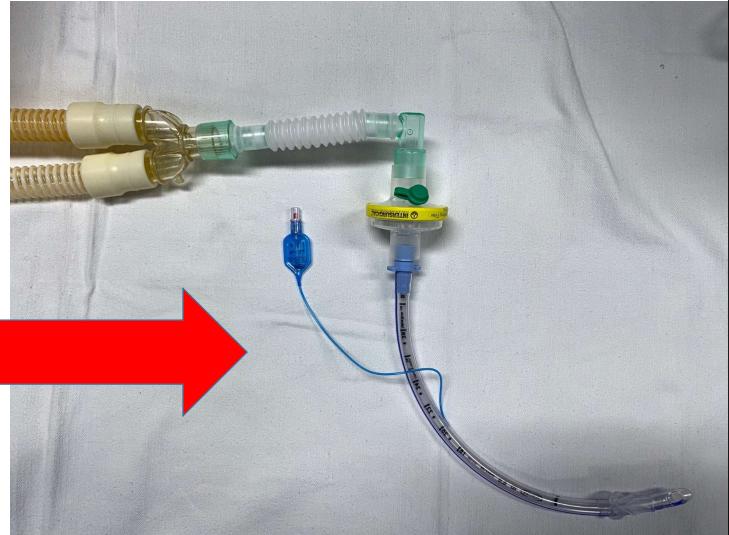
COVID Intubation Tray

<input type="checkbox"/> Macintosh VL blade	<input type="checkbox"/> Bougie / Stylet	<input type="checkbox"/> ETCO2
<input type="checkbox"/> Hyperangulated VL blade (if available)	<input type="checkbox"/> 10 mL syringe	<input type="checkbox"/> NG tube (large bore)
<input type="checkbox"/> Macintosh direct laryngoscope	<input type="checkbox"/> Tube tie	<input type="checkbox"/> OPA + NPA
<input type="checkbox"/> SGA (2nd generation)	<input type="checkbox"/> Lubricant sachet	<input type="checkbox"/> Scalpel + bougie CICO kit
<input type="checkbox"/> ETT (appropriate size range)	<input type="checkbox"/> Viral filter	<input type="checkbox"/> Inline suction

Circuit Setup



Staged transition from Mask-Filter-Circuit to ETT-Filter-Circuit



3



Mask-Filter-Circuit

Pre-oxygenation 5 minutes
Two handed grip
Well fitted face mask

4



Disconnect Y-adapter

Induction drugs administered
- 30-60 seconds pause
- mask tightly on
Disconnect circuit from filter
apparatus at Y adapter.
This isolates fresh gas flow from
viral filter

5



Disconnect Filter Apparatus

Place in dirty equipment tray
- Mayo table by bed

6



Intubation

Video laryngoscopy
Syringe pre-attached

7



Inflate Cuff

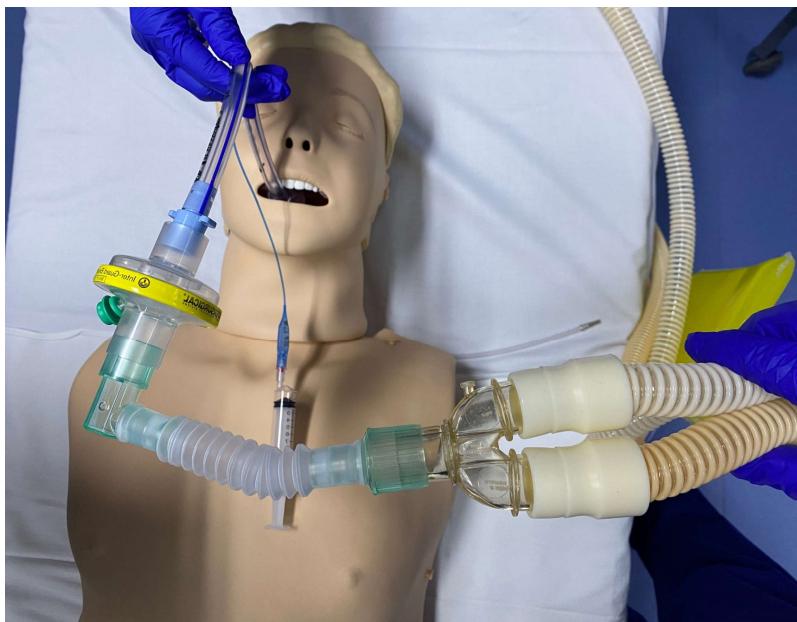
10ml air

8



Re-attach Filter Apparatus

9



Re-attach Circuit

Test ventilation to assess capnography and confirm tube placement

Switch to ventilator

10



SAFE AIRWAY SOCIETY

COVID-19 AIRWAY MANAGEMENT

1. Intensive training
2. Early intervention

3. Meticulous planning
4. Vigilant infection control

5. Efficient airway management
6. Clear communication

USE A 'BUDDY CHECK' FOR CORRECT PPE FITTING

Planning

Intervene early - aim to avoid emergency intubation.
Negative Pressure room or Normal pressure with strict door policy.
Senior clinician involvement. Is Anaesthetist needed?
Early airway assessment documented by senior clinician.

Prepare

Assemble 5-6 person Airway Team (see reverse).
Use COVID-19 Intubation Tray (see reverse).
Ensure Viral Filter and ETCO₂ in ventilation circuit.
Share Airway Strategy. Use a dedicated COVID intubation checklist.

PPE

Hand Hygiene (HH).
Donning: HH > Gown > Mask > Eye-protection > Hat > HH > Gloves.
Spotter to perform "Buddy Check" to ensure correct PPE fit.
Airway operator to consider double gloves.

Pre-Ox

45 degree head up position.
Pre-oxygenate with Face Mask using 2 hands, Vice-grip and PEEP for full 5 minutes.
Ensure a square ETCO₂ waveform, to be confident of no leaks.
Avoid Apnoeic Oxygenation techniques due to aerosolization risk.

Perform

Use VL; use the screen (indirect view) to maximise operator distance from airway.
Modified RSI technique (1.5mg/kg IBW Roc OR 1.5mg/kg TBW Sux).
Careful 2-person ventilation with Vice-grip and PEEP during onset of NMB.
Wait 60 seconds for paralysis to take effect - avoid triggering cough.

Post-ETT

Inflate cuff BEFORE initiating ventilation and monitor cuff pressures to minimise leak.
Remove outer gloves (if on), dispose of airway equipment in sealed bag.
Doffing: Gloves > Gown > HH > Hat > Eye Protection > Mask > HH. Use a Spotter.
Debrief and share lessons.

Awake Intubation

Risk of aerosolization. Involve Senior Anaesthetist if this airway technique is indicated.

Connection / Disconnection

Apply the viral filter directly to the ETT.
Only disconnect the circuit on the ventilator side of the viral filter.

CICO Rescue

Scalpel-bougie technique to avoid aerosolization.



SAFE AIRWAY SOCIETY

COVID-19 AIRWAY MANAGEMENT

Adapted Vortex Algorithm for COVID-19 patients



MANIPULATIONS:

- HEAD & NECK
- LARYNX
- DEVICE



ADJUNCTS



SIZE / TYPE



MUSCLE TONE



SUCTION

IN-LINE, IF ETT IN SITU

Correct sizing critical to minimising aerosolization

ETT

Use VL screen
i.e. indirect view

SGA

2nd Generation

Face-Mask

2-handed
Small TV
Use PEEP

Can't Intubate, Can't Oxygenate
SCALPEL-BOUGIE TECHNIQUE



Risk Factor

Protective strategy

Aerosolization with dyspnoea/coughing

- Full PPE before entering intubation room
- Minimise time between removal of patient's PPE and application of well sealed FM
- Profound paralysis before instrumenting airway

Inadequate Facemask seal during pre-oxygenation

- Well-fitting mask
- Vice grip
- Manual ventilation device with collapsible bag (to maximise ability to identify leaks)
- ETO₂ to clarify end point of adequate PreOx as early as possible
- Delayed sequence intubation in combative patient

Positive pressure ventilation with inadequate seal

- Good seal
 - FM - as above
 - SGA - appropriate size, adequate depth of insertion
 - ETT - confirm cuff below cords, check cuff manometry, meticulous positioning of ETT
- Airway manometry to minimise ventilation pressures
- Minimise ventilation pressures
 - Paralysis
 - 45-degree head elevation
 - Oropharyngeal airway

High gas flows

- Avoid HFNO, nebulisers and airway suction with an open system