UCLH COVID-19 EMERGENCY INTUBATION CHECKLIST

TEAM LEADER TO READ ALOUD

1. Assemble Team (3+1) & Allocate Roles

- Inform on call ICU and anaesthetic consultants
- Consider d/w ID team

➢ Introductions and roles

➢ Who is going into the room with PPE?

- **Dr 1** – 1st Intubator *(most experienced intubator)*
- **Dr 2** – Team leader, drugs, haemodynamics, 2nd Intubator *(anaesthetist, ICU, ED)*
- **Skilled assistant** - Airway assistant [may already be in room] *(ODP, ITU Nurse)*

- **Runner** – Supports team and fetches extra kit *(ODP/ITU Nurse/ED Nurse)*

[Runner stays outside the room in Visor, FFP3 Mask, Apron, Gloves]

2. Prepare Equipment (Outside room/bay)

➢ Wheeled trolley with inco pad

➢ Blue plastic box/2nd trolley for runner to place extra kit on

➢ Appropriately sized airway equipment as per list (**page 3**)

➢ Draw up all drugs as per list (**page 3**) – request CD drugs early.

➢ Videolaryngoscope **including stylet** – remove all unnecessary parts & consumables from VL

➢ Ensure the following are available inside room or prepared to take in:

- Monitor, cables, ECG dots
- BP cuff and tubing
- $ETCO_2$ modules, water trap and sampling line
- SaO_2 probe
- Waters circuit
- O2 regulator
- Suction outlet and tubing
- Charged Oxylog ventilator and tubing
- Charged infusion pump
- Clinical waste bin
- Alcogel

➢ CVC/Art lines & packs, transducer, pressure bag & fluid & USS

3. Team Brief/Airway Plan

➢ Preoxygenation: 3 mins Waters circuit with HME, 5L/min O_2

➢ Cricoid – yes or No?

➢ Plan A: videolaryngoscopy with stylet /bougie (3 attempts by Dr 1 +1 by Dr 2)

➢ Plan B: supraglottic airway

➢ Plan C: **2 person FMV with adjuncts** (deepen paralysis)

➢ Plan D: eFONA – who will perform eFONA?

➢ Post Intubation:

- Inflate cuff before ventilation
- Immediate HME filter
- Clamp tube for planned circuit disconnections
- Check equal b/l chest rise and $ETCO_2$ – **do not auscultate**
- Connect to Oxylog with HME filter
- Commence propofol infusion

➢ Lines and/or CXR?

➢ Plan for transfer & kit cleaning

4. Prepare Yourselves

➢ Don PPE as per guidance

- **FFP3 MASK ON FIRST** – care with strap positioning
- Gloves
- Gown (with 💧 💧 💧 symbol)
- Visor
- Hat
- 2nd gloves with tape
- 3rd gloves (no tape) for intubator & assistant
- Apron if available
- Names on stickers for visors

➢ Avoid touching your face

➢ **Buddy check each others' kit**

➢ Look out for each other!

➢ Project your voice

5. Enter Room

➢ Take trolley and all equipment

➢ Ensure runner remains available outside room

➢ Kit must not be handed directly from runner to Dr 2 – place unopened on floor/trolley

This Checklist is not intended to be a comprehensive guide to preparation for induction

IN ROOM INTUBATION CHECKLIST

6. In Room Pre-Intubation

Team Leader reads aloud, team confirm each task when completed:

-Airway assessment, identify cricothyroid membrane, prepare and check Waters circuit (tighten connections) and suction

-Check and pre-program ventilator settings – DO NOT START VENTILATION

-Optimise patient position, apply and check monitoring including ETCO2, place inco pad on patient's chest for dirty airway equipment

-Ensure adequate IV access with fluid attached and running

-Pre O2: Waters circuit with HME, 2 hands, tight seal. Minimise O2 flows and PEEP: Aim 5 L O2 max.

Confirm plan during pre-O2 including post-op steps:

-Induce anaesthesia - dosing

-60 seconds apnoea

-Perform Intubation

- Plan A - VL
- Plan B - SGA
- Plan C – 2 person FMV
- Plan D - eFONA

Scalpel cricothyroidotomy

Equipment: 1. Scalpel (wide blade e.g. number 10 or 20)
2. Bougie (≤ 14 French gauge)
3. Tube (cuffed 5.0-6.0mm ID)

Laryngeal handshake to identify cricothyroid membrane

Palpable cricothyroid membrane
Transverse stab incision through cricothyroid membrane
Turn blade through 90° (sharp edge towards the feet)
Slide Coudé tip of bougie along blade into trachea
Railroad lubricated cuffed tube into trachea
Inflate cuff, ventilate and confirm position with capnography
Secure tube

Impalpable cricothyroid membrane
Make a large midline vertical incision
Blunt dissection with fingers to separate tissues
Identify and stabilise the larynx
Proceed with technique for palpable cricothyroid membrane as above

7. Post-Intubation

-Immediate **HME** filter application

-Inflate cuff before ventilation and connect circuit

-Confirm correct ETT position – DO NOT AUSCULTATE

-Intubator removes top-most gloves and covers VL blade with glove, places on inco pad, wraps dirty airway kit

-Ensure all circuit connections are tight fitting

-Clamp the ETT for any circuit changes

-Commence ventilation with Waters circuit, Oxylog or ITU Vent

-Commence propofol infusion

-Line insertion if indicated

-CXR

-Liaise with runner re: transfer destination and timings

-Clean Glidescope +/- USS with Clinell

-Doff PPE with extreme caution – use buddy system and doffing guidelines

-Leave room/bay - only mask in situ

-**FFP3 MASK OFF LAST**

See **Page 4** of this checklist for detailed role descriptions – please familiarize yourself with these

Bags in blue airway box

Airway Equipment

Bag 1 Pre-O_2	Facemask x 3 sizes Guedel x 3 sizes HME filter Catheter mount Waters circuit
Bag 2 Intubation	Macintosh blade size 3 and size 4 Laryngoscope handle ***Batteries checked!*** 20ml syringe ETT size 6, 7, 8 Inco Pad (for dirty airway kit) Tube tie Aqueous gel x 2 EtCo2 line Tube clamp Eye pads Scissors Inco Pad (for glidescope blade)
Bag 3 i-Gels	i-Gel size 3, 4, 5
Bag 4 eFONA	Scalpel size 10 Bougie ETT size 6

Drug	Preferred concentration	Dilution	Dosage	Administration for 70kg pt
Fentanyl	50mcg/ml	Neat	1-3mcg/kg	1.4 - 4ml = 70-200mcg
Ketamine	10mg/ml	Neat (check!)	1-2mg/kg	7-14 ml = 70-140mg
Rocuronium	10mg/ml	Neat	1mg/kg	7ml = 70mg
Propofol 1% infusion	10mg/ml	Neat	50-200mg/hr	5-20ml/hr (post intubation)
Metaraminol	0.5mg/ml	1 x 10mg vial with 0.9% NaCl to 20ml	0.5-1mg bolus	1-2ml
Ephedrine	3mg/ml	1 x 30mg vial with 0.9% NaCl to 10ml	3-6mg bolus	1-2ml
Atropine	600mcg/ml	Neat	300-600mcg bolus	0.5-1ml
Adrenaline	1:10,000	Purple Minijet - neat	50-100mcg bolus	0.5-1ml
Adrenaline (dilute)	1:100,000	1ml of purple Minijet with 0.9% NaCl to 10ml	10-20mcg bolus	1-2ml

COVID-specific points to remember

PPE

- Mask first on. Mask last off.
- Buddy checks for ALL PPE donning and doffing
- THREE pairs of gloves for intubation – remove top (non-taped pair) ASAP after intubation

Intubation

- Keep preoxygenation flows low, use HME
- VL for first look
- If desaturating - Two-person facemask ventilation with adjuncts
- No ventilation before cuff up
- Immediate HME after intubation
- Cover laryngoscope blade with glove
- Clamp tube with HME *in situ* for circuit changes

Additional equipment placed on blue plastic box or silver trolley outside room by Runner – NOT handed directly to Dr 2

Operator's PPE and safety is priority over sterility for lines

Take care of yourself and each other

THIS PAGE IS FOR REFERENCE – NOT PART OF PRE-PROCEDURE CHECKLIST – PLEASE FAMILIARISE YOURSELF WITH ROLES

	Airway Doctor 1	Doctor 2	Skilled Assistant	Runner
	A: VIDEOLARYNGOSCOPY WITH STYLET. B: I-GEL, REASSESS. C: 2 PERSON FACEMASK VENTILATION WITH GUEDEL, DEEPEN PARALYSIS. D: FRONT OF NECK.			
1	**DON PPE AND ENTER ROOM – SEE ATTACHED IN ROOM CHECKLIST**			**REMAIN OUTSIDE**
2	-Airway assessment -Check and Pre-program ventilator settings -Ensure all circuit connections are tight	-Optimise patient position -Ensure adequate IV Access -Fluid attached and running	-Attach and check monitoring incl. $ETCO_2$ -Check suction ready **-DO NOT USE PORTABLE SUCTION**	Liaise with Airway Doctor 2 Provide additional kit requested Place any requested kit unopened on a blue plastic box within arms reach of the team or slide towards team -or- Place silver trolley outside door but at arms reach of the team and place requested kit on trolley Doctor 2 will take the kit from the box/ trolley Do not hand kit directly to each other Provide communication and logistics with the rest of the hospital Assist with team safety and donning and doffing Clean kit exchange box/trolley
3	-Pre O2: Waters circuit with HME, 2 hands, tight seal. Minimise O2 flows and PEEP: Aim 5 L O2 max	Liaise with runner for additional kit	-Cricoid pressure only if assistant regularly performs & it is required	
4	-60 sec apnoea **-DESATURATION LIKELY** -Avoid FMV unless essential	-Induce anaesthesia -RSI (Drugs and doses attached) -Manage CVS		
5	-Intubate patient **-Immediate catheter mount with HME** -Connect to Waters/Oxylog/Vent	-Assist with FMV if necessary	-Apply HME filter as soon as stylet removed	
6	-Do not start ventilation until cuff up -Cover VL blade with clean glove	-Confirm tube placement with $ETCO_2$ and chest movement **-do not auscultate**	-Inflate cuff immediately 5-10 ml -Connect to ventilator ASAP	
7	-Dispose of 3rd set of gloves after instrumenting airway -If circuit break is necessary , turn off ventilator, break distal to HME and clamp tube			
8	-Ventilation: 6ml/kg ideal BW -Titrate PEEP (High requirements)	-Sedation: Propofol infusion -Pressors: Metaraminol bolus/infusion -Invasive lines can wait until critical care (Unless significant delay)	-Avoid circuit breaks if possible -If circuit break is necessary , turn off ventilator, break distal to HME and clamp tube	
9	-Change PPE fully if involved in transfer. -Transfer as per COVID transfer policy			
10	-If patient on ICU insert lines – assign roles -Operator's PPE is priority over sterility		Clinell wipes to glidescope inside room Tristell wipes outside room	
11	All single use equipment in the room must be disposed of. Non-disposable kit must be cleaned with green Clinell wipes **Doff PPE Equipment in room with extreme caution - buddy system – alcogel to gloves between each stage**			
12	-Ensure all PPE, equipment and drugs restocked as necessary -Team Debrief -Please complete our *COVID intubation learning points* form at https://tinyurl.com/uclhcovidtube or point your phone camera at this code -Consider showering			

Expected Kit Locations

(always check kit before donning PPE)

ICU

- Monitoring, Waters circuit, vent = in room
- Drugs, PPE, Airway kit = trolleys
- Glidescope = on unit
- Extra equipment for runner = stock rooms

ED

- Monitoring, Waters circuit = in room
- Oxylog = Resus
- PPE, Airway kit = trolleys/stock rooms
- Drugs = Resus RSI box (and CDs)
- Glidescope = Resus
- Extra equipment for runner = Resus/bring from theatres

Ward

- Monitoring, Oxylog = source from ICU/PERRT
- PPE, airway kit (with Waters) = Grab bags/boxes in theatre coordinators' office P03 and/or Th1
- Drugs = Th1 fridge/ODP
- Glidescope = on T8 or from theatres
- BRING ANYTHING ELSE YOU MAY NEED FROM THEATRES