Protected Intubation Pathway

Airway Management Guidelines for Patients Requiring Intubation with Suspected COVID-19 Infection

Prepare Outside Room

PREPARE PATIENT

- ☐ Monitors on (cardiac, blood pressure, oxygen saturation)
- ☐ Functioning IV
- ☐ Non-rebreather facemask 15 L/min

PREPARE TEAM

Identify and Assign Roles

Intubation Team
(All don Enhanced PPE for High Risk Procedure)

- ☐ 1 MD (Team Lead/ Possible Intubator)
- ☐ 1 RT (Airway Support/Possible Intubator)
- ☐ 1 RN (Monitors/IV/Medication administration)

Support Team
(Outside of patient room and **NOT** wearing Enhanced PPE for High Risk Procedure*)

The Support Team and its composition is ideal. The clinical scenario may preclude availability of a second MD or RT.

- ☐ 1 MD (Backup)
- ☐ 1 RT (Backup)
- ☐ 1 RN (Backup/Recorder) wearing droplet PPE
- ☐ Safety Officer (To ensure safe donning and doffing of PPE and that checklists are used)

Don PPE using buddy system. RT donning early will allow for entry to patient room and preparation.

** Depending on the acuity of the patient and the progress of the controlled intubation, one or all Support Team members might don Enhanced PPE for HRP either prior to or as the situation progresses*

Pre-Brief

What is known, roles, plan, anticipated airway difficulty, questions, concerns

PREPARE EQUIPMENT

- ☐ Prepare in advance outside of patient room
- ☐ Follow checklist

PREPARE MEDICATION

Prepare in advance outside of patient room and put in K-basins, to be taken into patient room by Intubation Team at start of procedure.

Clinical indication and MD preference may necessitate alternate medications and dosages.

RSI Medications

Recommended/prepare and bring into room

- ☐ Induction: Ketamine 1mg/kg IV
- ☐ Paralytic: Rocuronium 1.5mg/kg IV

Push Dose Pressors

Recommended/prepare **ONE** of the following based on MD request and bring into the room

- ☐ Phenylephrine
  Dosing: 50-200 mcg IV push PRN every 3-5 minutes
- ☐ Ephedrine
  Dosing: 5-25 mg IV push PRN every 5-10 minutes

Vasopressor Support

Consider before intubation if necessary/if time

- ☐ Norepinephrine infusion
  Dosing: 0-30 mcg/min to target MAP greater than 65 mmHg; Typical starting dose 5 mcg/min

Post-intubation Sedation Medications

- ☐ Propofol infusion
  (preferred 1st line if hemodynamics allow)
  Dosing: 0-100 mcg/kg/min; Typical starting dose 5-10 mcg/kg/min and increase infusion by increments of 5-10 mcg/kg/min every 5-10 minutes until desired level of sedation achieved.
- ☐ Fentanyl Infusion
  (additional agent if needed)
  Dosing: 0-100 mcg/hr; Typical starting dose 25-50mcg/hr

Procedure Inside Room

1. PREPARE

- ☐ Airway assessment (if possible and/or not already done)
- ☐ Ensure
  - Monitors are on (cardiac, blood pressure, oxygen saturation)
  - Functioning IV
  - Patient on non-rebreather facemask 15 L/min
- ☐ Optimize position – 45º head up

2. PREOXYGENATION

- ☐ Non-rebreather facemask 15 L/min
  (This intervention may be sufficient)
  OR
  Bag valve mask (BVM) with filter + PEEP valve + O2 < 15 L/min (2-handed vice grip) **NO BAGGING**
  (This might not be well tolerated by patient)
- ☐ Pre-oxygenate for 5 minutes if time allows
  - Achieving SpO2 greater than 90% may not be possible
  - If actively desaturating, or unable to maintain oxygen saturation above 85%, proceed with RSI-intubation
  - If agitation, consider early use of ketamine (DSI) to control agitation and allow preoxygenation to proceed.

3. MEDICATIONS

- ☐ Induction: Ketamine 1mg/kg IV
- ☐ Paralytic: Rocuronium 1.5mg/kg IV
- ☐ **NO BAGGING**
- ☐ Wait 50 seconds or until apneic

4. INTUBATION

- ☐ Video Laryngoscope to be used on first attempt
- ☐ Visualize cuff of ETT passing through cords and advance no further
- ☐ Inflate cuff
- ☐ Attach ETCO2 colorimetric detector
- ☐ Attach BVM with filter
- ☐ Give breath and confirm placement via ETCO2/misting of tube
- ☐ **DO NOT AUSCULTATE TO CONFIRM PLACEMENT**
- ☐ Secure tube placement
- ☐ Clamp ETT before disconecting BVM

➔ If failed 1st attempt intubation

- ☐ If the patient's SpO2 allows, make another intubation attempt, with an adjustment based on the first look (such as different blade or different size tube).
- ☐ Consider mobilizing the 2nd Intubator for assistance
- ☐ Re-oxygenate patient

➔ If re-oxygenate patient

Consider one or more of the following interventions:

- ☐ Controlled manual ventilations: Insert OPA and using BVM with filter + PEEP valve + O2 < 15 L/min (2-person technique); 1 Person to perform 2 hand proper seal; 1 Person to hold the bag and with gentle (low tidal volume) manual breaths x10 over 1 minute.
- ☐ Placing a second-generation supraglottic device (such as an intubating LMA). This can be considered for both reoxygenation and as a potential exit strategy. The SGA may then be used as a conduit for flexible endoscopically- guided tracheal intubation.
- ☐ Another intubation attempt, with an adjustment based on the first look (such as different blade or different size tube).

➔ If can't oxygenate/can't ventilate

- ☐ Emergency front of the neck airway (eFONA) is recommended using scalpel/bougie technique
- ☐ The major modifications include
  - Stop/don't proceed with ventilations through the mouth/nose
  - Cover the patient's mouth and nose with a mask when they are placed on the ventilator

5. POST-INTUBATION

- ☐ Initiate ARDS protocol for ventilation
- ☐ Push dose pressors if necessary for hypotension (either of the following):
  - Phenylephrine **OR** Ephedrine
- ☐ Vasopressor support if necessary
  - Norepinephrine infusion
- ☐ Post-intubation sedation medications
  - Propofol infusion (preferred 1st line if hemodynamics allow)
  - Fentanyl infusion (additional agent if needed)
- ☐ Place NG tube (if possible; **DO NOT AUSCULTATE**)
- ☐ Place: Re-usable equipment in container/bag as per usual practice; Disposable equipment in garbage

6. LEAVING THE ROOM

- ☐ Safety Officer and/or buddy ensures each person doffs properly
- ☐ Each team member doffs PPE one person at a time following doffing checklist

OUTSIDE PATIENT ROOM

- Team debriefs
- Document as per usual practice (Medications given and procedure)
- Consider Chest Xray in 20 minutes unless clinically necessary immediately