Sunnybrook HEALTH SCIENCES CENTRE

PROTECTED INTUBATION

General guiding principles to reduce potential exposure to health care workers where it relates to aerosol-generating procedures with high consequence pathogens, include minimizing staff and equipment entering room and modifying processes where possible (e.g. application of surgical mask on patient for compressions, avoiding direct laryngoscopy, pausing compressions for intubation and implementation of a Safety Leader for donning and doffing). See *Guidance Document for Aerosol-Generating Medical Procedures with High Consequence Pathogens* for more information.

This process map aims to identify procedures that are not within routine practice. The assumption is that all standards of care and best practice continue to be employed with the addition of these modifications (e.g. delivering oxygen via nasal prong to venturi mask as required with increasing oxygen demands).

Protected PPE: N95 mask, full face shield, level 2/yellow cloth gown, one pair regular cuff nitrile gloves, +/- blue bouffant (staff preference). Last Updated 2020/03/17.

TRIGGER:
Patient requiring O2 with clinical deterioration (consider), oxygen requirements of absolute 0.5 FiO2 (may consult at any time preceding 0.5 FiO2).

LOCATION:
Whenever possible, perform in a negative pressure room (if unavailable, single patient room with door closed)
Decision point: Transfer pre/post intubation based on clinical need and MRP assessment
If on Ward/Acute Care Unit: MRP or delegate to call Rapid Response Team (RPD)
Transfer to ICU: ICU Staff/Fellow to notify Patient Flow/MSO to Prioritize bed on L3 ICU

TEAMS MOBILIZED:

All Other Patient Units
ICU Staff/Fellow to consult Anesthesia Staff (EXT. 7878) for back-up.

Team huddle for intubation plan and decision on who will perform the intubation

In Room:
- 1 Experienced ICU Staff / Anesthesia for intubation, if needed
- 1 Experienced RRT
- 1 Experienced RN

Outside Room:
- 1 RN on stand-by (experienced)
- 1 Safety Leader (any staff)
- 1 Runner (any staff)
- 2nd experienced MD for intubation (donned and ready to enter)

Emergency Department (ED):
ED RN or ED MD/MRP to call, Respiratory Therapist (RRT), and a second available staff MD

Team huddle for intubation plan and decision on who will perform the intubation

In Room:
- 1 Experienced MD to Intubate (may be ED)
- 1 Experienced RRT
- 1 Experienced RN

Outside Room
- 1 RN on stand-by (experienced)
- 1 Safety Leader (any staff)
- 1 Runner (any staff)
- 2nd experienced MD for intubation (donned and ready to enter)

ADDITIONAL EXPERTISE/SUPPORT REQUIRED?
Intubation: The ICU may not always be most experienced in intubation, anaesthesia staff (X7878) may be called to any area to support with protected intubation (to retrieve and bring *GlideScope®* and 2 sizes of blades from the OR). Consider Sugammadex and Ketamine.
IF anticipated or known difficult intubation, ALWAYS call anesthesia staff (EXT. 7878) before proceeding

*Note: Determination of less or more staff than recommendations for inside room is at the discretion of the team in order to conduct a safe and manageable response. Consider additional RRT for support.

ADDITIONAL EQUIPMENT NEEDED:
If possible, minimize equipment going into room:
- Bacterial/viral filter on the Resuscitation Bag to be changed to a High Efficiency Hydrophobic (HEPA) filter
- Retrieve from RPD Cart to bring into room (in addition to items deemed required): Medication Tray (with syringes etc.), Intubation Tray and relevant "Go Bag" as applicable.
- Laerdal bag, videolaryngoscope of choice
- If response cart/equipment brought into room, will need cleaning and disinfection as per IPAC recommendations.

PROTECTED INTUBATION:
Staff performing this task must be cautious of PPE and identify immediately if a breach observed (e.g. visor up or fogged glasses). Do not use a stethoscope, confirm intubation with EtCO2.
- When pre-oxygenating patient, if a seal can be maintained, may use BVM (no manual ventilation)
- Avoid manually ventilating the patient. If absolutely necessary, used small tidal volumes
- Lead intubator to determine and discuss with team plan A, B and C for intubation, paralytic drugs, and ensure all equipment and staff readily available to perform
- Pause compressions for intubation
- Avoid direct laryngoscopy. Intubate utilizing video laryngoscope (*GlideScope®*/*McGrath*™ as applicable).
- If unable to intubate, avoid manual ventilation with BVM. Insert LMA, then ventilate using BV -LMA with resus bag **with** HEPA filter attached. Re-assess airway plan and consider need for additional expertise or surgical airway
- If unfamiliar with equipment do not proceed without team discussion and consideration for modifying procedure or calling in additional staff
- Connect directly to ventilator (PB980 or equivalent) to avoid multiple circuit disconnect

PLAN TRANSFER (if applicable):
When bed available, transfer with closed circuit ventilation system. All staff to keep N95 and face shield and don new gloves and gown for transport. Disconnect any non-essential equipment. Patient Transport to wipe bed rails/head board prior to transport. Safety Leader to follow during transport and will be responsible to open doors/elevators while maintaining no contact with patient or transport staff.

REMOVAL OF PPE:
Staff to individually, slowly and methodically doff PPE while observed by safety leader as per doffing guidelines and report any breaches of PPE immediately. Change into new scrubs if required.