Emergency Department Intubation Guidelines COVID-19

General Principles

- Airborne precautions
- Endotracheal intubation should be performed by most experienced Intubator available
- Limit number of people in room
- Transport staff should be in clean PPE, minimize number of transport staff

Team Roles & Communication

In room:

- MD – Intubator
- MD – Team leader
- RT – Assist with intubation
- RN – Administer medications
- RN - Documentation

Outside room:

- MD – Orders and support
- RT – Assist in-room RT
- 2 RNs (1 anteroom, 1 hallway) Assist with equipment and medications
- Safety Officer RN– Monitor staff, Monitor room, Support communication
- HCA

Preparation

- ❑ Move patient to negative pressure isolation room for intubation. Notify PICU of impending intubation
- ❑ First time-out OUTSIDE room – confirm weight, discuss intubation plan, back up plan and anticipated difficulties (physiologic or anatomical)
- ❑ Equipment:
  - ❑ Airborne precautions for all staff in room and anteroom (N95 mask, gown, gloves, face shield) – use “buddy system” for donning
  - ❑ RT to prepare and carry in airway equipment box (laryngoscope handle and blades, tape and Mastisol)
  - ❑ RN to bring in Broselow bag of equipment as per patient’s weight (actual or estimated)
  - ❑ Attach HEPA filter between elbow and O_2 line of MIE
  - ❑ Intubation and resuscitation medications ordered by Intubator. Suggest:
    - ❑ Induction : Ketamine 2 mg/kg IV and Rocuronium 1.2 mg/kg (to reduce coughing), +/- Atropine
    - ❑ Resuscitation: NS at maintenance. If require vasopressor: epinephrine 0.1-1 mcg/kg/min
    - ❑ Post intubation sedation: Midazolam 1-6 mcg/kg/min IV with bolus dose Ketamine 0.5-1 mg/kg prn
- ❑ Second time-out INSIDE room – review plan with all members of the team

Pre-Oxygenation & Induction

- ❑ Pre-oxygenate for ≥5 minutes using tightly fitting mask and MIE with flow at 6Lpm
- ❑ Avoid bag-mask ventilation if possible
  - ❑ If necessary, use low PEEP (< 5 cmH2O) and low tidal volume through mask, ensuring tight seal, two-hand, two-person technique
- ❑ Induction medications
- ❑ Full and prolonged paralysis
- ❑ Ensure adequate hemodynamic resuscitation with fluid +/- vasopressors pre-induction

Intubation & Ventilation

- ❑ Intubator to use laryngoscopy device with which they are most comfortable (direct versus video)
- ❑ After intubation and prior to commencing ventilation:
  - ❑ Inflate ETT cuff
  - ❑ Connect in-line suction and $ETCO_2$ monitor
- ❑ If intubation unsuccessful, BMV with low PEEP (< 5 cmH2O) and low tidal volume through mask with tight seal, 2 hand 2 person technique
- ❑ If difficult BMV, consider placement of LMA to facilitate ventilation

Post-Intubation

- ❑ Initiate sedation and ensure patient is comfortable and paralyzed before transport
- ❑ Complete all aerosol-generating medical procedures before leaving room
- ❑ Place laryngoscope and blades in secured bin at head of bed
- ❑ Doff PPE using “buddy system”
- ❑ Portable CXR to be done in PICU