The COVID Airway Safety Course
Instructor notes

Hand washing kata drill:
● Tends to be well received ● Participants take it seriously and have fun leading it after learning the pattern ○ Facilitator teaches 1 rep and then participants are chosen to lead the sequence in future reps and during the doffing drills. ● Teaching points ○ Participants need a lot more sanitizer then they normally use due to larger surface area being cleaned and evaporation from the increased time performing the drill. ○ Ensure participants verbalize the following consistent mantra while doing the drill ■ “Palms; Webs; Backwebs; Knuckles; Thumbs; Tips; Wrist”

Donning & Doffing Instructions
● Use label of “Hot Team” vs “Cold Team” ○ This quickly communicates level of PPE required and where the participant will be during the maneuvers ○ Hot Team: Aerosol PPE: inside room and anteroom ○ Cold Team: Droplet PPE: outside room ■ Quick way to summarize Aerosol PPE is Droplet + N95 and Goggles ● Donning ○ ● Doffing ○ Large Doffing poster near exit of Hot Room and in Anteroom/Hallway ○ “Hot Team” member verbally leads Doffer through “Hot room” process ○ “Cold Team” member verbally leads Doffer through anteroom or hallway process

Donning/Doffing Teaching points

- Remove all personnel equipment before entering room (Jewellery, watcheds, **stethoscopes**, ID badges, pager, phones)
    - Disposable stethoscope kept outside room and can be passed in if deemed essential
- Mask first before gloves so that seal check is performed with higher sensitivity (ie can detect air leak better with bare hands)
- Donning of mask:
    - bottom strap first, Avoid crisscrossing of straps, perform leak test
- Gown:
    - Ensure wrists are covered: most frequently observed breech
    - Tie generous slip knot so it is easy to untie
- Gloves
    - Double Glove for Hot Team due to likelihood of ++ soiling by respiratory secretions.
- Goggles
- Faceshield: wear so that visor does not tilt back exposing chin and face
- Bouffant
    - to be worn if you have any loose hair that could dangle into your face
    - Ensure that it is the last PPE on head so easily removed
    - Ie: no straps over top of it.
- No “Hot Team” member shall enter the room before PPE verified by “Cold Team” safety officer

Doffing order

- Hot Room
    - Outer pair of gloves
    - Bouffant
    - Inner pair of gloves
    - Hand hygiene (HH)
    - Gown
        - Keeping Chest out Head Up to avoid chin touching soiled from of gown
            - Untie waist of gown
            - Untie Neck of gown and roll down from shoulders (do not pull off from chest)
    - HH
    - Exit Hot Room using hand on door handle (not elbow or butt as these are hard to wash unlike your hands)
- In Anteroom/Hallway
    - HH
    - Hinge forward at hips over disposal bin to allow items removed from head to fall forward down onto chest or face
        - Remove shield -> Hand hygiene -> Goggles – reprocessed (need separate container) ->Hand hygiene ->Mask (bottom strap first then upper strap) -> Hand hygiene

Team organization

Roles Assignment:

- TL to use aid/checklist
- TL to physically divide the participant roles of Hot (inside)/Cold(outside) ie. “I will assemble my Hot team to my left, Cold team to my right”
    - “Hot Team” : Aerosolizing PPE (ie droplet + N95 and Goggles)
        - “Intubator” (most experienced)
        - “Ventilator” (RT)
        - “Medicator” (either RN or resuscitation MD)
        - “Hot Runner” (RN/RT/MD)
    - “Cold Team”: Droplet PPE
        - “Charter” RN
        - “Officer” RN/MD
        - “Cold Runner” RN
- Intubator to discuss Plan A and B; use technique that you are comfortable with
    - A: glidescope preferred but DL if most comfortable
    - B: LMA
    - C: Cric
- Cold team roles prior to Hot team going in
    - TL will assign cold RN to prepare drugs. ***Assign this role right away.***
    - Cold team helps Hot team gown up eg. Tie back of gowns
    - Safety Officer stands outside anteroom and checks every Hot Team member prior to entering anteroom
- Ante room runner: in aerosol PPE (N95) to watch for breeches; tap out with inside personnel if needed; hand over equipment (without touching inside person)

Equipment Organization

Getting equipment into the Hot Room:

All equipment must go in at once. Anteroom functions as an airlock: do not open both doors at once

- Note: Back up Plan B/C/D airway adjuncts are on tray outside room but immediately available to be passed by Cold Team runner to Anteroom runner to Hot team member in case of need.
- Ie: LMA, Scalpel, Bougie, #6 ETT etc.. STETHOSCOPE IS NOT BROUGHT INTO ROOM.
- Can be passed in if the team feels absolutely necessary. Avoiding empirically bringing it in will decrease chance of reflex auscultation

How to get all the equipment into the room at once

- RT brings in
    - Vent – with insp/exp filters ; dry circuit with HME for ER and heated for ICU
    - BVM – inline suction -> Green filter (mechanical filter) -> ETCO2 -> BVM (bring mask in but not attached to BVM setup)

- Intubator brings in
    - Glide scope or DL depending on preference – plan A (in room); Plan B/C (in hallway)
    - Intubating Tray
        - ETT/stylet/syringe – prep outside of room
        - HiOx mask with green nipple

- Medicator MD/RN brings in
    - RSI: Ketamine/Rocuronium
    - Pressors
        - Push Dose
            - Epinephrine: Cardiac Amp or Push dose (anticipate bradycardia, low threshold)
            - Phenylephrine: premixed 100mcg/ml
        - Infusion (need premixed from pharmacy)
            - Norepi/Epi
    - Post intubation package
        - Propofol/Midazolam
        - Fentanyl

Integration Exercise 2 reps

RSI:

Stem

- "This is John, he is one of our ER RN's. He swabbed positive for COVID last week and has been at home under quarantine. He has become progressively SOB and called EMS today. He has been put in our negative pressure isolation room. He has an IV in situ. His vitals are: HR 110, BP 130/90, RR: 36, SaO2 85% on 5L NC, Temp: 37.7 ICU is full. We have to intubate in the ED"

Preox:

- Sit patient upright
- Place HiOx immediately – can be placed over NP (if already in place)
- Do not hold BVM over face – might be tempted to bag ** verbally communicate no plan to BVM with team
- If bagging required; 2 person, 2 handed. Smaller volumes when delivered due to risk of aerosolization

RSI Drug administration:

- High dose Rocuronium (2mg/kg) to speed up onset of paralysis: equivalent to Sux (~45s)
- RSI drug pusher counts down time **out loud** to team
- Anticipate desat. TL to verbalize "this is to be expected".
- Anticipate brady – prophylaxis and or rx with epi
- DO NOT attempt to intubate earlier than the 45- 60 sec as the patient will cough/aerosolization will occur.
    - This is the key point: as patient desats into hypoxic bradycardic pre-arrest temptation will be to bag or to intubate early
    - Avoid this
    - Use Push Dose Epi to Prophylax/Treat this

ETT in place:

- Cuff up immediately and attach to BVM or Vent
- Ensure number/position at lip or teeth eg. 22 – 24 at lip
- Placement confirmed with ETCO2/Colorimetric (change color); visible chest rise, Vent pressure
- Prevent Right Mainstem by proper tube insertion depth, equal visual chest rise, Vent pressure and Volumes
- Do not use stethoscope unless absolutely necessary
- CXR with personnel in the room is ok - risk from radiation is not a concern

Vent Settings:

- Mode – volume control
- Resp Rate – 24 – 28 bpm
- Peep 10 cmH20
- Volume – 6 cc/kg
- FiO2 .80 - .90