Acute Care and Emergency Department

Intubation and Extubation

COVID-19

INTUBATION is categorized as an aerosol generating procedure (**AGP**). Precautions must be taken to ensure that healthcare workers are protected when performing this procedure. When performing intubation the following recommendations have been made.

See back for extubation guidance

Key points to remember when intubating and extubating PUI or COVID+ patients:

- All intubations should be done in a **negative pressure room**. If a negative pressure room is unavailable, it may be performed in a single room with the door closed.
- **Enhanced PPE** is required for AGPs: A fit-tested N95 respirator, hair cover (or powered air purifying respirator [PAPR]) device, if one is adequately trained to use), face shield, gown, and double gloves (preferably long gloves).
- **Minimize the number of staff in the room** to the amount required to provide safe intubation and prevent transmission exposure
- Preferably, the most experienced Provider/Clinician should perform the intubation.
- Before the procedure begins, ensure all equipment is ready: standard monitoring equipment, disposable chucks, 10cc syringe, oxygen device, suction equipment (catheter or yankeur).
- Have additional emergency equipment or supplies nearby with an assigned runner for items.

INTUBATION STEPS:

1. Before procedure begins, **ensure all equipment is ready**: standard monitoring equipment, IV access, and drugs. Ensure ventilator and suction equipment is functional.
    a) Have additional equipment or supplies nearby with an assigned runner for items.
2. Avoid awake fiberoptic intubation (due to the risk of coughing and aerosols). Consider video laryngoscopy to minimize close exposure.
3. Plan for **rapid sequence induction** (RSI).
4. **Pre-oxygenate with 100% FiO2 non rebreather for 5 minutes**, avoid BVM if possible
    a) If BVM unavoidable, use small tidal volumes, two-person technique to achieve tight mask seal, and ensure high efficiency hydrophobic filter is in place.
5. Once intubated, immediately **inflate the cuff and attach to vent using end tidal CO2 monitoring**
    a) If end tidal is not available, place filter on ETT and use colorimetry, placing after HEPA filter
6. Institute mechanical ventilation and stabilize the patient.
7. All **airway equipment must be decontaminated and disinfected** according to appropriate hospital and manufacturer policies.
8. Ensure all **dirty equipment is placed in a biohazard bag or bin** that is appropriately labeled for the support staff who collect and process the equipment.
9. Remove outer gloves before touching any spaces that may be touched by others.
10. Doff equipment within an area designated for doffing dirty PPE.
11. After removing protective equipment, avoid touching hair or face before washing hands.
12. Practice hand hygiene before and after all procedures.
13. Consider assigning a specific role on the team to clean/disinfect video laryngoscope equipment and ensure restock of supplies and return to designated place for future use.

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EXTUBATION is categorized as an aerosol generating procedure (**AGP**). Precautions must be taken to ensure that healthcare workers are protected when performing this procedure. When performing intubation the following recommendations have been made.

See front for intubation guidance

EXTUBATION STEPS

Most Experienced Provider/Clinician (preferably Respiratory Therapist) Responsibilities:

- **Gather all supplies** needed to perform extubation: 2 chucks, 10cc syringe, oxygen device, suction equipment (catheter and/or yankauer).
- Have all equipment ready to use at the head of the bed.
- Oxygen device should already be running and ready to place.
- Suction should be on and ready to use.
- Place Ambu Bag with filter and mask in place at head of bed in case of emergency.
- **Elevate HOB** at least 45 degrees
- Place 1 chuck on patient chest to capture disposable of ETT syringe etc.
- **Hyperoxygenate** the patient with 100% O2 for 2 minutes prior to extubation.
- **Suction** patient airway and above the vocal cords and ETT Cuff.
- Place syringe on pilot line.
- Place second chuck over the patient mouth and nose to prevent particles from disbursement into the room during procedure.
- Leaving the vent circuit connected to the ETT, disconnect the inspiratory limb and filter from the ventilator with filter attached to circuit.
- Deflate cuff and pull the endotracheal tube with mouth and nose of patient still covered by chuck.
- Use the chuck to help cover patient mouth while coughing to remove any secretions.
- Place Oxygen on patient.
- Discard ETT, syringe, chucks, etc., in biohazard bag for disposal.

Team Responsibilities:

- Alert any healthcare team member not familiar with the scenario that the patient is a PUI or COVID positive.
- Isolation precautions (including N-95, gown, gloves, goggles or face shield and hair covering) should be observed.
- Once procedure is over, doff equipment within an area designated for doffing dirty PPE.
- After removing protective equipment, avoid touching hair or face before washing hands.
- Practice hand hygiene before and after all procedures.

Review "Key points to remember when intubating and extubating PUI or COVID+ patients" (other side)

Surviving Sepsis Campaign: Guidelines on the Management of Critically Ill Adults with Coronavirus Disease 2019 (COVID-19): https://www.sccm.org/getattachment/Disaster/SSC-COVID19-Critical-Care-Guidelines.pdf?lang=en-US

Wax et al. Practical recommendations for critical care and anesthesiology teams caring for novel coronavirus (2019-nCoV) patients. Can J Anesth/J Can Anesth https://doi.org/10.1007/s12630-020-01591-x