

UNC OR Anesthesia Transport & Planning for COVID+ Patients

Supplement to PolicyStat ID: 5829571 Highly Communicable Diseases: Preparedness and Response Plan

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Background: This supplement was created by the Department of Anesthesiology COVID-19 Action Committee after discussion with representatives from Perioperative Nursing, Infection Control, MICU Nursing, Respiratory Therapy, House Supervisor, OR staff, OR Pharmacy, and Environmental Services.

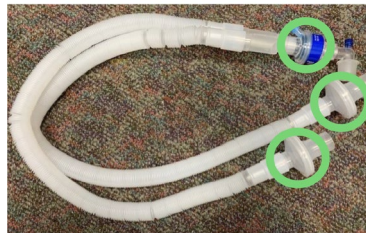
Whenever possible, the patients should have procedures/tests done in their own rooms (i.e. bronchoscopy, endoscopy, dressing change, bedside tracheostomy), rather than transporting to other areas

Perioperative Planning and Transport to and from Operating Room

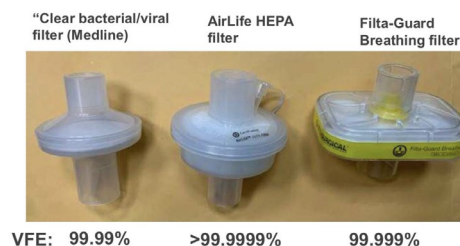
A. Preparing for **COVID positive or COVID Bronchoscopy** patient in the Operating Room:

- a. Call Operating Room front desk (984-974-1400) prior to patient transport to help arrange logistics
- b. **Patient Transport**
 - i. Intubated Patients
 1. Done by anesthesia with full PPE with Clean Hands Transporter
 - ii. Non-Intubated INPATIENTS
 1. Clean Hands Transporter + floor RN(s) will deliver the patient to the main hallway outside of PCS A. Anesthesia will meet them there and transport to OR.
 2. Anesthesia will recover the patient in the OR and take the recovered post-op patient from the OR back to 6BT room with a clean hands transporter (this can be done by any employee/provider/RN). Preferred route is the service elevators by VIR 9.
 - iii. OUTPATIENTS
 1. Done by House Supervisor (deliver to/pickup from Isolation Room of PACU)
- c. Perform huddle with OR team prior to patient transport.
- d. Movement in and out of the Operating Room should be minimized. Anesthesia Techs will not enter the operating room once the patient arrives.

- e. Ideally, equipment will not leave the OR during the procedure. If equipment must leave the OR after the patient has arrived, it should be disinfected with an EPA registered disinfectant (i.e. Sani-Cloth or Metriguard). Intraop labs should be placed in the designated container in anteroom or outside room, and a secondary circulator or designee will send labs or be the liaison between Anesthesia Tech and the room. Entry into the anteroom occurs when empty and standard PPE will be used.
- f. Only personnel involved in direct care are allowed to enter the operating room once the patient arrives.
- g. Only necessary OR equipment should be in the room prior to patient entry. If used (optional), prioritize the use of the COVID+ Patient Anesthesia Medication bag for COVID positive patients only. Utilize Pyxis for bronchoscopies; remove extra equipment or bring in needed equipment prior to the case.
 - i. If COVID+, the single-patient **COVID+ Anesthesia Medication bag should be obtained from the Pharmacy OR window** (will be loaded into Pyxis for after hours) and all COVID pack drugs should be discarded appropriately after the case. **Remove clean/unnecessary supplies from the Operating Room prior to case, and leave them with the runner outside the OR. For COVID+ patients, only medications from the bag that did not enter the Operating Room can be returned to the pharmacy (i.e. they stayed outside the OR with the runner).**
 - ii. **It is perfectly acceptable to remove items from the Pyxis with CLEAN hands DURING the case, remove gloves, and perform hand hygiene with an alcohol based hand rub prior to retrieving medications from the Pyxis.**
 - iii. Ensure the use of bacterial/viral filters (HMEF) for the Anesthesia ventilator circuit (both limbs on machine and connected to sample line) and on ambu bag.



Circuit limb viral filters (types you may see below)



Place a “high quality” viral filter (>99.99% VFE) between the breathing circuit and the patient’s airway



MINI HMEF

- 99.99% viral filtration
- Included with adult anesthesia circuits
- Vt 150-1000ml



Pediatric and infant HMEFs

- 99.99% viral filtration
- Infant: Vt 30-100ml
- Pediatric: Vt 75-300ml



Correct

- Sampled gas is filtered
- All gases entering circuit are filtered

A regular HME is not the same as a Heat Moisture Exchanger Filter

- h. If ventilation settings are stable in the ICU (PEEP <10-12 cmH₂O, <FiO₂ 50-60%, RR maintainable with ambu), the intubated patient should be transported using an ambu bag with viral filter attached (ambu with filter provided by ICU). If ventilator settings are outside of these goal parameters, a ICU transport ventilator with viral filters may be used. *COVID patients here are currently using the Hamilton G5 ventilator, which is not portable (wall O₂ source) and ETCO₂ cannot be monitored without access to our Anesthesia machine.
- i. **Any OR can be used for a COVID patient. Proceed to the best suited room and refer to the provider PPE guidelines. Use the medication bag if COVID+ or COVID is highly suspected.**
- j. Label the designated Operating Room doors with the Special Airborne/Contact Precautions sign. The hallway outside the room should have minimal traffic once the patient enters the OR. Circulator will apply appropriate signs.
- k. **OUTPATIENT/BRONCH CONSIDERATIONS:** Patient will be retrieved from PACU isolation room and should wear a surgical mask anytime we are not actively managing the airway. If possible, and a phone is available in the room, obtain consent via phone to keep chart/papers clean (avoid having to don/doff PPE just for consent, can also consent when going into room for transport). Keep the stretcher in room, if possible, during the case (discuss during huddle). Patient will recover in the PACU isolation room, however, the team should wait 21 minutes after extubation to move out of OR. O₂ transport facemask, if needed, should be placed over the patient's surgical mask.

B. Transport from patient unit to OR:

- a. **Intubated Patients in ICU will be transported by Anesthesia Personnel and Clean Hands Transporter to and from the patient room and Operating Room.**
- b. The non-intubated inpatient will wear a surgical mask during transport +/- O₂ facemask on top of the surgical mask. **The patient chart can be in the operating room with the patient. Clean Hands Transporter + floor RN(s) will bring the patient from floor and deliver the patient in the hallway between OR Pharmacy and PCS A to the anesthesia team in PPE.**

- c. Anesthesia transport personnel (CRNA, MD) will wear a MaxAir CAPR or N95 respirator, clean gloves, clean gown, shoe covers, and eye protection.
- d. Route to the OR should be segregated from the main traffic routes as much as possible. The Trauma Elevator is preferred due to its size. The clean hands transporter (PPE, if in a smaller elevator where contact with bed is unavoidable: gloves, gown, surgical mask) will remain ahead of the transported patient to clear hallways of obstacles and people, and will push buttons and open doors.

C. In Operating Room:

- a. Follow COVID/Highly Infectious Disease intubation practices to minimize aerosolization of viral particles. Precautions should be taken to prevent patient coughing and bucking, which can generate airborne and droplet material.
- b. If the patient is not intubated, a surgical mask must be applied to the patient throughout the length of stay in the operating room as long as they remain a native airway. If supplementary oxygen is needed, the oxygen mask should be applied over the surgical mask to prevent virus aerosolization.
- c. Spinal anesthesia is the acceptable primary choice of anesthesia for cesarean delivery in a mother with COVID-19. The infected mother must wear a surgical mask at all times.
- d. The MD/CRNA/patient will enter the OR and intubation will be performed on the OR table or inpatient bed. **Staff with N95/PPE can be in the room at any point, but if not engaged in OR tasks, may wait in the ante room in PPE during intubation. Staff in proper PPE will not need to wait after intubation to re-enter the operating room.**
- e. **For bronchs, everyone in the room should don N95/PPE for the entirety of the case as the entire case is aerosolizing.**
- f. **Patient Bed:** The bed or outpatient stretcher should remain in the operating room, if possible (discuss during huddle). If the bed needs to be removed from the OR, linens should be taken off the bed, and the bed must be wiped down in the room. ORA will be called, don appropriate PPE (gown, gloves, surgical mask), and receive the inpatient bed outside of the OR door. Bed will be wiped down further and stay in the hallway per Infection Control (if it cannot stay in the room). Additional outside circulator will place a set of clean sheets/gown on top of the bed and place a "COVID" stop sign on the bed. Inpatient bed sheets are to be applied in the OR when the bed is uncovered and ready to receive the patient.

D. After surgery and Transport to inpatient unit:

- a. Intubated Patients will be transported back to the ICU by the anesthesia team with full PPE and a Clean Hands Transporter
- b. If extubation of an inpatient in the OR is planned, OR staff will help transfer the intubated patient from the OR table to the hospital bed. All personnel except Anesthesiologist/CRNA should doff PPE and leave OR prior to extubation. Extubation in the OR should be performed with MD/CRNA in room only.
- c. **The extubated inpatient, will recover in the OR following postoperative recovery standards prior to transport to the inpatient unit. Anesthesia will**

- give a rolling call before transporting the patient back to inpatient/6BT room with the clean hands transporter (this can be done by any employee/provider/RN). Preferred route is the service elevators by VIR 9.
- d. Outpatient bronchs will recover in PACU isolation room (after waiting 21 minutes in-room upon extubation for air turn over prior to opening the main OR door).
 - e. **If the Pyxis in the OR was contaminated (meaning touched with non-clean hands), non-paper packaging can be cleaned like any other surface/item. Paper packaging (such as phenylephrine with paper labels) will require turnover/restocking from pharmacy. Contact the OR pharmacy technician via Vocera “OR Pharmacy Tech” or email pharmORtechs@unchealth.unc.edu to inform them and specify which drawers were contaminated. This will allow for targeted decontamination.**
 - f. Anesthesia transport team will wear full OR PPE MaxAir CAPR or N95 respirator, clean gloves, clean gown, and eye protection.
 - g. The patient should be covered in clean gown/sheets and wearing a surgical mask during transport if extubated in the Operating Room (if facemask O2 is required, O2 facemask will be placed over surgical mask).
 - h. **EVS should not enter the OR for cleaning until 30 minutes from out of room time has elapsed** (for maximal HEPA filtration). The time that the room can be cleaned/accessed will be posted outside of the OR door. EVS can wear contact isolation PPE and surgical mask per Infection Control.
 - i. After the Anesthesia team performs patient handoff, doff PPE per protocol. Anesthesia team should observe each other, or appoint another team member, to monitor for appropriate doffing.

Important Phone Numbers

- OR Front Desk 984-974-1400
- “House Supervisor” on Vocera or page 347-1922
- “Infection control” on Vocera or page 216-2935, available via pager 24/7, only in-house 0630-2200 seven days a week
- MICU care nurse number: Vocera “Call 43XX nurse” XX = room number
- MICU front desk: 984-974-5255

References:

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