

Guidelines for Patients with COVID-19 Suspected or Confirmed Infection in the Perioperative Environment

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A. Initial Triaging of procedures for patients with known or suspected COVID-19*

1. For patients with suspected COVID-19 infection (person under investigation i.e. COVID test pending or COVID infection confirmed), defer the procedure until the COVID-19 test results are available, if possible.
2. If the procedure can be done at bedside, perform the procedure at bedside, using COVID PPE per protocol.
3. If the procedure cannot be deferred or done at the bedside:
 - a. Schedule the patient by calling the surgery scheduling or the charge nurse for same day cases.
 - b. Inform medical directors (Tom Schulte or Matt Mormino or their designee) and Charge Nurse that the patient is COVID-19 + or COVID-19 test pending,
 - c. If feasible, consider intubating the patient in a negative pressure Airborne Infection Isolation room prior to transport to the OR.
 - i. Intubation should be done per COVID PPE. All staff should don COVID PPE as per protocol.
 - ii. Limit individuals in the room to essential personnel only.
4. The ORs remain positive pressure. Keep all doors closed as much as possible to keep room pressures regulated.
5. Ideally, intubation and extubation will be performed in the designated negative air flow rooms in PACU. Personnel entering the OR suite immediately after an aerosolized generating medical procedure (AGP) is performed (e.g., intubation, extubation) should do so only in an emergency and must wear COVID PPE (N95 respirator plus eye protection or a PAPR, in addition to a gown and gloves. Ideally, they should wait 15 minutes before entering after intubation/extubation and then wear appropriate PPE based upon COVID risk flow diagram

B. Staffing of Surgical Cases

1. Staffing for the surgical case should be minimized to the following:
 - a. Nursing team (2 RNs or 1 RN/1 ST).
 - b. 1 backup circulator/technician will be stationed in second OR to obtain supplies/equipment/blood cooler needed for the case and assist people with donning and doffing PPE
 - c. Attending anesthesiologist/CRNA or resident
 - d. Attending surgeon with senior resident
 - e. Relief for breaks should be provided only as necessary to decrease the number of people in and out of the room and to preserve PPE.

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C. Transporting Patients with Known or Suspected COVID-19 Infection to the OR

1. Prior to transport, **all members of the operative team** will meet to review the surgical and anesthesia plans, to ensure the room is ready, and all supplies, equipment, blood, and other materials are available in the OR and in working order. This team review will include, at minimum, the surgical attending, the anesthesiology attending, the circulator and scrub, back-up circulator/technician, and appropriate OR leadership.
2. The Time Out of the Universal Protocol can be used as a reference.
3. Nursing will call everyone for the briefing. In most cases the review will be led by the surgical attending. Anesthesia will lead the discussion for aerosolized generating medical procedures (AGPs).
4. Patients will be transferred directly to the OR. No COVID-19+ or COVID-19 test pending patients will go to the pre-op or PACU areas unless they can go directly to one of the two negative pressure isolation rooms.
5. Pre op Transport team will include:
 - a. Pre op staff RN/pre op patient care technician.
 - b. For direct transports
 - i. Anesthesia attending/CRNA
 - ii. Circulating Staff Nurse
 - iii. OR Respiratory Therapist (if needed)
6. When transporting a patient:
 - a. All persons involved in transporting a patient will obtain appropriate PPE (see below) required for transport from OR supplies, carry PPE to the patient's location, and don PPE prior to entry into the patient's room.
 - b. See hospital policy **IC04 Transmission-based Precautions/Isolation Precautions** and/or [Guidance for Transporting Patients with or under investigation for COVID-19](#) or detailed patient transport guidelines
7. Obtain PPE required from OR Front Desk.
 - a. Consider switching patient to a portable ventilator in the negative pressure ICU room (clamping ETT briefly during switch):
 - i. Ensure a high efficiency hydrophobic filter is in place between the ETT and Ambu bag/Jackson-Reese or ventilator to avoid releasing infectious material to the surroundings.
 - ii. Do not use the single-limb transport ventilator.
 - iii. Consider using the portable ventilator in the OR with TIVA to avoid disconnects
 - b. Prior to entry into the patient's room, transport staff having direct contact with the patient will don an N95 respirator plus eye protection (face shield or goggles) or a PAPR, in addition to an isolation gown and gloves.
 - c. Team member designated to interact with the environment will wear an N95 respirator.

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D. Procedure Upon Arrival to Operating Room and During Surgery

1. COVID 19 ROOM signs will be posted on the doors to the OR suite to inform staff and minimize exposure.
2. A log will be placed on the exterior door to track all staff who enter the room.
3. The transporters and patients will enter the OR and allow the door to close.
4. Once the patient transfers to the OR table, the bed/gurney will be cleaned and moved to the appropriate location outside of the OR.
5. The circulator will remain clean and wear gown, gloves, eye protection and N95.
6. The Unicell will be stored in the core accessed by a designated runner.
7. Use of double gloves is standard practice in the OR.
8. Before any AGMPs (e.g., intubation and extubation) are performed, all OR personnel must don an N95 respirator plus face shield or a PAPR, in addition to gown and gloves.
 - a. Once an AGP is performed, additional OR personnel entering the OR suite must don appropriate PPE outside of the OR.
 - b. If not scrubbed during the intubation, sterile personnel should wait 15 minutes prior to entering the room after intubation to gown and glove.
11. If general anesthesia is not required, the patient will continue to wear the surgical mask throughout the procedure.
12. If general anesthesia is is required, the surgical team should step out of the room during intubation and extubation, unless the surgical team (e.g. ENT/OMFS) is directly involved in airway management. They can re-enter after 15 minutes.
13. Consider disposable covers (e.g., plastic sheets for surfaces) to reduce droplet and contact contamination of equipment and other environmental surfaces.
14. Smoke evacuation electro-surgical pencils will be used to address the possibility of virus in electro-surgical smoke.

E. Post-surgical Procedures for Patients with Known or Suspected COVID-19 Infection

1. Doff gowns and gloves in the operating room and discarded into regular trash receptacle, then perform hand hygiene. Exit the OR with respiratory protection (face shields, N95 respirators or PAPRs) in place. N95 Respirators and PAPRs should not be worn outside the OR or procedure area.
2. Exit into the outside corridor.
3. If the patient will be immediately transported to an ICU, keep respiratory protection in place and don appropriate PPE.
4. **The scrub person:** At the end of the case, the primary circulator will bring the empty case cart into the OR. The scrub person will place dirty instruments in the case cart and spray instrumentation with approved enzymatic cleaner. The closed case cart

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will be wiped with LLD wipes prior to it being sent to the sterile processing department (SPD).

5. Patient should be recovered in a negative isolation room (PACU) or directly back to inpatient negative isolation room in the ICU if the patient came from or is scheduled to go to the ICU. If PACU room is unavailable, then the patient will recover in the OR and be transferred back directly to the appropriate inpatient negative isolation room.
6. Move the patient from the OR table on to a regular floor bed prior to the surgical and anesthesia team's departure.
7. Prior to assisting with transporting the patient back to the inpatient location, OR team members involved in the transport will don appropriate PPE as described in the Transport section above.
8. After completion of patient delivery to the receiving inpatient location, OR team members involved in the transport will immediately doff PPE and perform hand hygiene. Face shields and PAPR face shields should be cleaned with a disinfectant wipe outside the patient's room and staff should follow appropriate PPE reprocessing procedures.
9. After the patient has left the OR, leave the room closed for 30 minutes (achieves greater than 99.9% aerosol clearance). The OR suite can then undergo routine cleaning with an EPA-approved hospital disinfectant after 30-minute downtime. Technicians can use PPE routinely utilized for OR environmental cleaning and disinfection. It is **critical** that all horizontal and high touch surfaces are thoroughly wiped (e.g. procedure table, countertop, chair, patient care equipment, anesthesia equipment, etc.) with approved low-level disinfectant. The manufacturer's instructions for use **must** be followed (wet times) for disinfection to occur. After cleaning, room is ready for the next patient.
10. OR room cleaning for Asymptomatic patient in OR who undergo Aerosol Generating Procedure (AGP).
 - a. If patient is suspected COVID-19 or confirmed COVID-19 follow # 9 above.
 - b. For patient undergoing low risk procedure (not COVID-19 tested prior) with AGP performed under COVID-19 PPE:
 - i. OR Room Sit:
 1. If not Aerosol Generating Procedure (AGP) performed, room does not need to sit for air exchanges and cleaning can begin directly following the patient's exit from the room.
 2. OR and Procedure room: Once AGP is performed, doors to remain closed for **15** minutes before opening, with the exception of rare emergent needs (minimize time door is open).
 - ii. After the appropriate time has passed then the room is ready for cleaning.
 - iii. Established isolation cleaning processes should be followed. Individual should wear gloves and eye protection as

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needed per normal cleaning (no N-95, no gown). It is **critical** that all horizontal and high touch surfaces are thoroughly wiped (e.g. procedure table, countertop, chair, patient care equipment, anesthesia equipment, etc.) with approved low level disinfectant. The manufacturer's instructions for use **must** be followed (wet times) for disinfection to occur.

- iv. After cleaning, room is ready for the next patient.