

# Perioperative Care of Suspected/Confirmed COVID-19 Patients

## UCSF Benioff Children's Hospitals

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### 1. Personal Protective Equipment (PPE) Guidance

- Per the newest UCSF Infection Control guidelines, all staff caring for COVID+/PUI or patients with confirmed exposure to COVID-19 must don Novel Respiratory Isolation precautions (N95 and face shield or PAPR, gown, gloves)
  - Previously, this was only required for patients undergoing aerosol-generating procedures (i.e. nebulizer, hi-flow NC, CPAP/BIPAP, invasive mechanical ventilation...etc)

### 2. Triaging Procedures for Patients with Suspected/Confirmed COVID-19

- If possible, the patient should avoid the OR
  - Only urgent and emergent surgeries are warranted
- If possible, perform procedure at the bedside in an isolation or airborne isolation room
- If the procedure cannot be performed at the bedside or deferred:
  - Inform the OR Charge Nurse and Anesthesia that the patient has suspected/confirmed COVID-19

### 3. Patient Preparation

- The patient should have a PIV placed before coming to the OR
- Consider intubating the patient in a negative pressure room prior to transport to the OR

### 4. Patient Transport

- Prior to transport, all members of the surgical team meet to review the plan and ensure the room is ready and supplies available. This team includes the surgical attending, anesthesia provider, circulating nurse, and surgical scrub.

- The patient will be transported directly to the OR. No suspected/confirmed COVID-19 patients will go to pre-op or PACU
- Parent/guardian of the patient should wait in the patient's room. If patient is coming from ED, call the nursing supervisor to assign a room for the patient
- The transport team will usually include:
  - Anesthesia provider
  - Back-up anesthesia provider
  - Circulating nurse
- When transporting a patient:
  - Per the newest UCSF Infection Control guidelines, all persons involved must don Novel Respiratory Isolation precautions when interacting with COVID+/PUI or patients with confirmed exposure to COVID-19
  - One person is designated to attend to the patient and avoid touching environmental surfaces
  - One person is designated to interact with the environment (door handles, elevator buttons, etc)
- Transport of a non-intubated patient:
  - Patient should wear a well-fitting mask during transport to and from the OR
- Transport of an intubated patient:
  - Ensure hydrophobic filter is placed between the ETT and Jackson-Reese or portable ventilator

## 5. Operating Room Preparation

- Cases will be scheduled in designated COVID-19 OR
- Set up an area outside of OR for donning and doffing. A small case cart should be available for storing used PAPRs
- If possible, the case should be done as the last case of the day
- Limit supplies in the OR to prevent surface contamination

## 6. Staffing of Surgical Cases

- One primary circulating nurse
- One back-up circulating nurse (stationed outside the OR to obtain supplies/equipment/blood and assist staff with donning/doffing)
- One surgical tech

- One primary anesthesia provider (responsible for airway management)
- One back-up anesthesia provider (stationed inside the OR to monitor patient and draw up medications during airway management, and immediately available during the rest of the case)
- Attending surgeon +/- assistant
- Break reliefs should be provided only if needed; the goal is to minimize traffic in/out of OR

## 7. Start of Case / Airway Management

- Only three staff in the room: two anesthesia providers and one circulating nurse
- Airway will be managed by one of the anesthesia providers and circulating nurse; the second anesthesia provider will monitor the patient and draw up medications
- Endotracheal intubation with RSI is favored. When possible, pre-oxygenate for 3-5 minutes with 100% FiO<sub>2</sub>
- Inhalational inductions are not recommended. If necessary, avoid positive pressure ventilation
  - If positive pressure is unavoidable, use small frequent tidal volume.
- Avoid awake fiberoptic intubation if possible
- Consider use of video laryngoscope
- Re-sheath laryngoscope or consider using “Double Glove Technique”
- Place all used airway equipment in a sealed bag to be removed for decontamination
- Ensure hydrophobic filter is placed between facemask/ETT and breathing circuit
- Utilize in-line suctioning
- Clamp ETT if disconnected from hydrophobic filter/breathing circuit (i.e., if opened to room air)
- After patient is intubated, surgical staff can enter the OR suite fifteen minutes later

## 8. Extubation / Recovery

- All staff should exit OR except for the circulating nurse and one anesthesia provider. The back-up anesthesia provider can also be in the room if clinically necessary
- Recovery staff can enter the OR fifteen minutes after extubation
- The PACU staff will don Novel Respiratory Isolation precautions
- When clinically stable after extubation, place mask on patient
- Patient will be recovered by two PACU nurses or one PACU nurse and circulating nurse in the OR
- The transport staff will don Novel Respiratory Isolation precautions
- One person will be designated to interact with environmental surfaces (door handles, elevator buttons, etc) but not the patient.

## 9. Post-Surgical Procedures

- Doff all PPE in the OR except N95 masks/eye protection and PAPRs
- N95 masks/eye protection and PAPRs should be doffed in the designated area outside of the OR
- A doffing assistant will help staff remove the PAPRs. The used PAPRs will then be placed on a small case cart and covered with a biohazard case cover
- Scrub tech: At the end of the case, the scrub tech will place dirty instruments in the case cart and spray the instruments with enzymatic cleaner. The closed case cart will be wiped with hydrogen peroxide wipes prior to being sent to SPD
- Surgeon:
  - Remove outer gloves
  - Remove gown and inner gloves; discard these in the OR and leave the room
  - Perform hand hygiene
  - Doff N95 mask/eye protection or PAPR in the designated area outside the OR
- After the patient has left, the OR will undergo routine terminal cleaning and waste removal

## 10. Personal Protective Equipment

- A powered air-purifying respirator (PAPR) provides superior protection; however, an N95 mask/eye protection is adequate PPE for COVID-19 during high risk procedures if PAPR is not available

- **Hand washing (>20 seconds) is essential before and after donning or doffing PPE**