Perioperative Management Of All Patients During COVID-19 Pandemic

Guideline

Ventura County Medical Center and Santa Paula Hospital has had evidence of significant community spread of COVID-19. Many patients shed virus for days before symptoms are present. In this setting, COVID-19 testing will be offered to all patients undergoing surgery at VCMC and Santa Paula Hospital, as long as supplies are available.

For inpatients, testing will be performed on site. For VCMC and Santa Paula Hospital, outpatients will be COVID testing the day before surgery, and tests will be run at VCMC. If patient condition requires an urgent/emergent operation prior to results, the test will still be sent to help determine post-operative PPE needs.

All team members must don full contact, droplet and airborne personal protective equipment (PPE). PPE shall comprise of N95 respirator with face shield/goggles or powered air purifying respirator (PAPR), gown and double gloves. PPE shall be donned for the entire duration of the case. In many cases, N95 respirators, face shields or PAPR shields may be re-used and stored. Additionally, anesthesia providers should elect to avoid mask ventilation in favor of a rapid sequence intubation with endotracheal tube, when feasible.

Exceptions include specific operations that are low risk for transmission and performed without intubation such as local/regional anesthesia. In these cases, normal operating room PPE may be used in the absence of a COVID-19 test. If a patient tests negative, normal operating room protocol is followed, unless the operating surgeon decides that the risk of a false negative is too high, and opts to proceed with the following protocol.

This protocol will be used for patients who are confirmed to have COVID-19, who do not have test results available at time of surgery, or at surgeon discretion (as above).

*High risk surgeries include procedures on airway, throat, mouth, sinuses, endoscopy, TEE, ECT, surgery under regional anesthetic with high likelihood of requiring general anesthetic, active CPR, thoracic surgery/procedures. Low risk surgery in this context is everything else.

Procedure

Pre-Operative Set Up:

- Each morning, there will be a meeting with OR charge nurse, OR manager and first call anesthesiologist to discuss availability of supplies including PPE. At this meeting the plan for rotating ORs throughout the
day can be discussed.

- Surgeon consents patient prior to transport to OR according to policy S.56 Preop and Surgery Admission.
- Surgical tech opens room per routine and exits room prior to patient entry.
- Gowns and gloves are set up outside room on sterile table for surgeon and assistant
- A pre-operative huddle is performed with the surgeon, anesthesiologist, scrub tech, and circulator to discuss anticipated challenges prior to bringing the patient down. Attempts should be made to anticipate all needs to avoid opening doors during the operation. During the huddle, a decision will be made about whether to attempt to save N95 masks as they may be able to be reused. If planning to reuse the N95 masks, they will need to be covered with a surgical mask, if not there is not utility in double masking. If not reusing, N95 need to be discarded in the designated N95 bin for potential decontamination.

### Transport for Inpatients and Non-Trauma Emergency Room Patients:

- Patient wears droplet precautions with mask and fresh bed sheet as cover
- Anesthesiologist and Circulator Nurse (RN) don intra-operative PPE including respirator
- Anesthesiologist and Circulator RN go to the patient, check consents and meet patient before transporting directly to OR (no pre-op holding). This is intended to avoid any stop at the OR front desk.

### Transport for Trauma Patients:

- Patient wears droplet precaution with mask and fresh sheet as cover when possible.
- Trauma team wears appropriate PPE and accompanies patient to the OR.
- Anesthesiologist and Circulator RN don intra-operative PPE including respirator in anticipation of patient arrival.
- OR staff preps room as much as possible for trauma and leaves room prior to intubation.
- Trauma surgeon, resident wait to enter room until intubated.

### Arrival in Pre-Op for Outpatients:

- Patient wears droplet precaution with mask and fresh bed sheet as cover.
- Pre-op staff follows 106.028 Isolation precaution policy to decide what PPE to use. For patients who are not under investigation or proven to have COVID, this will include procedure mask (not N95) and gloves.
- Anesthesiologist and Circulator RN don intra-op PPE including respirator to transport patient from pre-op area.

### Perioperative Care:

- Patient is brought into the room on a gurney when possible. Patient is transferred to the OR table and gurney is left in the room.
- Anesthesiologist and Circulator RN in room for rapid sequence intubation with tube clamped and low flow O₂. Scrub tech and/or surgeon will be available to help move the patient over while donning droplet precautions.
- Scrub tech, surgeon, and assistant don PPE outside room in fashion consistent with CDC guidelines: Eye protection and respirator prior to scrubbing, then gown and glove.
- Team enters room. Time out is performed in standard fashion. Attempts are made to reduce the times the door is opened during the case; needs should be anticipated during the huddle.
- Surgery is performed. Attempts should be made to minimize opening of doors, especially in the first 30
minutes after intubation and extubation, while aerosols may be present.

- Surgical tech and surgeons leave the room prior to extubation. PPE is removed per CDC guidelines in the OR, near the door.
- Face masks and goggles are placed on a clean table and immediately disinfected per CDC guidelines. N95 masks used in confirmed COVID-19 positive patients are discarded in the designated N95 bin. Circulator RN remains with the Anesthesiologist. Each person is responsible for cleaning their own eye protection.

**Postoperative Care:**

- Anesthesiologist and Circulator RN recover patient in OR for 30 minutes to allow air circulation. This is not necessary if the patient met criteria to not require N95 masks, and the patient may be taken directly to PACU.
- PACU staff will wear droplet precaution PPE.
- At 30 minutes post extubation, patient is transported to PACU by the anesthesiologist and circulator. If the patient is an ICU patient, they are transported directly to the ICU. If a patient will return intubated to the ICU, the 30 minute wait is not necessary.

**Cleaning of Operation Room Postop:**

- Environmental Services (EVS) may enter with droplet precautions after patient is transferred, as long as it has been more than 30 minutes after extubation.
- EVS will wait longer to enter the Operating Room unless room is needed immediately.

**References:**

- https://www.cdc.gov/infectioncontrol/guidelines/environmental/appendix/air.html: 15 min interval based on air changes/hour data in UCSF OR rooms and CDC guidelines on airborne contaminant removal
- Risk factors for conversion to general anesthesia during a cesarean delivery with labor epidural in situ include; Epidural in situ > 12 hours, pain during labor requiring ≥ 2 additional anesthesia administered boluses, non-CSE/DPE epidural catheters, concerns for morbidly adherent placenta, BMI > 40, and emergent surgery.

All revision dates: 4/7/2020, 4/1/2020, 3/31/2020

**Attachments**

No Attachments

**Approval Signatures**

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<tr>
<th>Step Description</th>
<th>Approver</th>
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<tr>
<td>PolicyStat Administrator</td>
<td>Jason Arimura: Director-Pharmacy Services</td>
<td>4/7/2020</td>
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<tr>
<td>Policy Owner</td>
<td>Marites Cull: Director-Surgical Services</td>
<td>4/7/2020</td>
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