

Asymptomatic, COVID-19 Non-Confirmed/Non-Suspected Patients for Surgery

All perioperative patients are currently being clinically screened for symptoms of COVID-19. It is possible that infected, asymptomatic or pre-symptomatic patients may present for surgery. Because it is possible that pre-symptomatic individuals may shed SARS-CoV2 in the nasopharynx and based on updated guidelines from the American Society of Anesthesiologists (ASA) on personal protective equipment¹, the following recommendations have been made for patients without a recent negative COVID-19 test:

For **asymptomatic** patients undergoing **high-risk** procedures (scenario 2), all team members must don full **contact, droplet** and **airborne** PPE (N95 respirator with face shield/goggles or PAPR plus gown and double gloves) for the **entire duration of the case**. In these cases, N95 respirators, face shields or PAPR shields may be re-used and stored in accordance with UCSF PPE reuse policies. Additionally, anesthesia providers should elect to **avoid mask ventilation** in favor of a **rapid sequence intubation** with endotracheal tube, when feasible.

- **High-Risk Surgeries:**
 - Any procedures on the airway, throat, mouth or sinuses (bronchoscopy, tracheostomy, glossectomy, laryngoscopy procedure...etc)
 - Endoscopy, TEE, ECT
 - Surgery under regional anesthetic with high likelihood of requiring GA
 - Active CPR
 - Thoracic surgery/procedures

For **asymptomatic** patients **NOT undergoing a high-risk** procedure, but requiring **general anesthesia** (scenario 3), anesthesia providers must don full **contact, droplet** and **airborne** PPE (N95 respirator with face shield/goggles or PAPR plus gown and double gloves) for airway placement, manipulation (if necessary) and removal. At these times, the other members of the team must leave the O.R. and wait outside for 15 minutes (based on average air circulation time) after completion. After that, other team members can return and wear standard PPE (standard gown, eye protection, gloves). For procedures where a 15 minute wait could seriously hinder care (i.e. emergency surgery in an unstable patient, C/S under GA), providers should follow the procedure for high-risk surgery (scenario 2). During extubation, all other providers should leave the room and wait outside for 15 minutes while the patient remains in the O.R. Ideally, the O.R. doors should not be opened during these times. In these cases, N95 respirators, face shields or PAPR shields may be re-used and stored in accordance with UCSF PPE reuse policies. Additionally, anesthesia providers should elect to **avoid mask ventilation** in favor of a **rapid sequence intubation** with endotracheal tube, when feasible.

For **asymptomatic** patients **NOT undergoing a high-risk** procedure and **NOT requiring general anesthesia** (scenario 4), standard PPE can be worn by all team members. However, if providers anticipate a high likelihood of requiring deep sedation and a general anesthetic option is deemed safe, consider following scenario 3 and performing general anesthesia from the start.

Scenario	Anesthesia Provider PPE	Surgery/ Nursing/ Scrub PPE	Notes
1 – COVID-19 PUI/ Confirmed for ANY surgery	<ul style="list-style-type: none"> • <u>Single-use</u> N95 + face shield/goggles or PAPR • Gown • Double gloves 	<ul style="list-style-type: none"> • <u>Single-use</u> N95 + face shield/goggles or PAPR • Gown • Double gloves 	<ul style="list-style-type: none"> • Minimize number of providers present
2 – Asymptomatic patient for HIGH RISK surgery*	<ul style="list-style-type: none"> • <u>Reusable</u> N95 + face shield/goggles or PAPR • Gown • Double gloves 	<ul style="list-style-type: none"> • <u>Reusable</u> N95 + face shield/goggles or PAPR • Gown • Double gloves 	<ul style="list-style-type: none"> • PPE to be worn by all members throughout procedure • Minimize number of providers present
3 – Asymptomatic patient for LOW RISK surgery involving general anesthesia	<ul style="list-style-type: none"> • <u>Reusable</u> N95 + face shield/goggles or PAPR for airway placement • Gown • Double gloves 	<ul style="list-style-type: none"> • Standard PPE if NOT present for airway placement, otherwise same as anesthesia providers 	<ul style="list-style-type: none"> • Non-anesthesia providers leave room for intubation/extubation and 15 mins² following • If 15 min² interval not possible (i.e. C/S under GA) follow scenario 2
4 – Asymptomatic patient for LOW RISK surgery WITHOUT general anesthesia	<ul style="list-style-type: none"> • Standard PPE 	<ul style="list-style-type: none"> • Standard PPE 	<ul style="list-style-type: none"> • If risk of conversion to GA is likely, follow scenario 3 from the start³

Please note:

- Properly fitted N95 respirators or PAPRs (for those who are not fit-tested, have facial hair, or fail N95 fit-testing) will provide adequate respiratory protection when performing aerosol generating procedures.
- N95 respirators and PAPRs can only be worn inside procedural areas.
- N95 respirators/face shields/PAPR shields may never be re-used in the care of a COVID-19 PUI/Confirmed patient.

1- <https://www.asahq.org/about-asa/newsroom/news-releases/2020/03/update-the-use-of-personal-protective-equipment-by-anesthesia-professionals-during-the-covid-19-pandemic>

2- 15 min interval based on air changes/hour data in UCSF OR rooms and CDC guidelines on airborne contaminant removal <https://www.cdc.gov/infectioncontrol/guidelines/environmental/appendix/air.html>

3- 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.