
UCSF COVID-19 CONTROL PLAN

I. Program Administration

Hospital Epidemiology and Infection Prevention (HEIP) is coordinated by the System Director, Medical Directors, and Associate and Assistant Medical Directors who are responsible for designing, implementing, evaluating, and maintaining the UCSF COVID-19 Control Plan. HEIP collaborates with representatives from Occupational Health Services, Nursing, Hospital Administration, Emergency Services, Environmental Health and Safety, Medical Center Facilities Management, Patient Placement Services, Hospitality Services, and Clinical Laboratory Services. Input from other departments/individuals with required expertise is sought as needed.

II. Background

COVID-19 is an illness caused by the SARS-CoV-2 virus. Spread in the healthcare setting can occur through person-to-person transmission.

III. Contacts for Additional Guidance**A. COVID-19 ID Attending for Adults**

Page: 415-443-0190 available 24 hours a day

B. Pediatric ID service

Page: 415-443-2384, Voalte Pediatrics ID service 24/7

C. Hospital Epidemiology and Infection Prevention (HEIP)**1. Main Office (General Questions):**

Tel: (415) 353-4343

Fax: (415) 353-4348

2. On call contact:

Adult: VOALTE: (628) 248-9059

Pediatric: VOALTE: (628) 248-8503

3. Benioff Children's Hospital Oakland

510-428-3733 - business hours

510-428-3885 ext. 6997 BCH Oakland Nursing supervisor - non-business hours

pager 510-718-1466 - non-business hours

D. Additional support:

ML Hospital Supervisor Spectralink (415) 353-8036 or (415) 353-1964

MB Adult Hospital Clinical Resource Nurse (415) 502-0728

Benioff Children's Hospital-SF Hospital Supervisor (415) 502-0728

E. Public Health Departments

1. For Parnassus, Mission Bay, and Mount Zion, contact the San Francisco Department of Public Health (SFDPH) Communicable Disease Control at (415) 554-2830; if calling during non-business hours, (415) 554-3613 to reach the SFDPH on-call physician

2. For BCH Oakland, contact the Alameda County Department of Public Health (ACDPH) at 510-267-3250, or during non-business hours call 925-422-7595.

IV. General Practices to Prevent Transmission of COVID-19 in the Healthcare Setting (refer to "UCSF COVID-19 Prevention Plan" for general UCSF Health and campus Environment, Health & Safety [guidance](#))

- A. Lobby and point of entry screening (when in effect)
 1. Healthcare personnel screening requirements:

- a. Perform daily screening that includes questions on symptoms, exposures, and COVID-19 diagnosis using the UCSF COVID-19 mobile daily screener
 - b. The criteria for the daily screening are available at the [UCSF Occupational Health Services Return to Work guideline](#).
2. Patient and Visitor screening (when in effect)
 - a. Patients will be screened for vaccination status, symptoms, exposure, or prior COVID-19 diagnosis on admission, presentation to the ED, and for all ambulatory encounters
 - b. Responses to symptom and exposure screening may be used to postpone or redirect patients to an appropriate clinical site (e.g., the Emergency Department or the Respiratory Symptom Clinic (RSC) at Mount Zion), as clinically appropriate.
 - c. Visitors including caretakers will be screened for vaccination status, symptoms, exposure, or prior COVID-19 diagnosis in accordance with SFDPH and CDPH requirements.
3. Universal Source Control Measures:
 - a. All UCSF Health employees are required to wear a UCSF-provided medical mask while in the healthcare facility, including non-clinical spaces such as breakrooms and campus shuttles, as [per guidance](#)
 - b. Patients are required to wear a medical mask while in patient care buildings as [per guidance](#) with these exceptions:
 - I. Patients ≤ 2 years of age will not be required be masked because it is not safe. Other young children > 2 years of age should be offered a mask if it is safe and tolerated. For younger children, if safe, you can cover the crib, stroller, and car seat with a clean sheet during transport.
 - II. Patients with medical conditions that interfere with safe mask-wearing are exempt.
 - III. Outside of these exceptions, patients must wear a medical mask during transport and when healthcare personnel or visitors are in the patients' room.
 - c. Visitors/caretakers are required to wear a UCSF-provided medical mask while in patient care buildings as [per guidance](#).
 - I. Caretakers of inpatient pediatric patients must wear a medical mask during patient transport if they accompany the patient and when healthcare personnel are in the patient room.
 - d. Hand hygiene:
 - I. Encourage and educate patients, visitors and HCP to perform frequent hand hygiene, especially before and after adjusting masks, patient encounters, or contact with high touch surfaces.
 - e. Social Distancing:
 - I. When possible, encourage physical distancing of at least 6 feet in all clinical settings.
 - II. Implement physical distancing measures such as rearranging seating, modifying in-person healthcare activities to virtual methods, etc.
 - f. Vaccination:
 - I. All employees of UCSF Health must adhere to the UC-wide [mandatory COVID-19 vaccine policy](#).
 - II. Provide education to healthcare providers, patients and visitors regarding vaccines

III. Provide resources and education and strongly encourage vaccination for all visitors and patients.

V. Identification and evaluation of patients with possible COVID-19 infection

- A. Early identification of patients with possible COVID-19 infection:
 - 1. Rapid identification of individuals with compatible symptoms and institution of appropriate isolation measures are critical to reducing the risk of COVID-19 transmission.
- B. COVID-19 testing is available and does not require approval.
- C. Consultation with the COVID ID attending (adult patients) or the pediatric ID service is available 24 hours a day to assist with case evaluation and management.

VI. COVID-19 Testing

- A. Use COVID-19 microbiology laboratory-based nucleic acid amplification testing (NAAT) for the diagnosis of COVID-19, asymptomatic (pre-procedural or admission) testing or suspected/confirmed/exposed COVID-19 patients. Other COVID-19 tests such as point of care tests (e.g., Abbott IDNow), serology, and antigen testing can provide supplemental information but should not be used alone for COVID-19 diagnosis for asymptomatic (pre-procedural or admission) testing or suspected/confirmed/exposed COVID-19 patients.
- B. Testing should be guided by the COVID-19 clinical algorithms and does not require additional approval. Refer to the clinical algorithms [adult](#) and [pediatric](#).
- C. Appropriate PPE to wear during test collection:
 - 1. Obtaining a nasopharyngeal (NP), mid-turbinate (MT), anterior nares (AN), or oropharyngeal (OP) specimen is not considered an aerosolizing procedure and a negative pressure/airborne infection isolation room is not required.
 - 2. Perform testing in a room with the door closed.
 - 3. Healthcare personnel obtaining swabs for COVID-19 testing must perform hand hygiene and don:
 - i. N95 respirator and eye protection OR powered air purifying respirator (PAPR)
 - ii. Gloves
 - iii. Gown
- D. For details about testing refer to the [UCSF Testing Guidance](#).
- E. Test review and reporting
 - 1. When a positive COVID-19 test is reported, the Microbiology lab and HEIP will report the result to the San Francisco Department of Health.
 - 2. HEIP will review test results routinely
 - 3. HEIP will report test results as per legislative and public health requirements
- F. Refer to the following link for detailed information on choosing and collecting the test:
 - Clinical algorithms ([adult](#) and [pediatric](#))
 - FAQs ([adult](#) and [pediatric](#))
 - [COVID-19 PCR Test Update](#)
 - [Nasal wash collection](#)
 - [Videos](#)
 - [Turnaround times \(TAT\)](#)
- G. Contact HEIP for concerns about false positive tests. Please contact the COVID-19 ID attending (adults) or pediatric ID service (pediatrics) if concern for COVID-19 treatment-related questions. Induced sputum is not recommended.

VII. Precautions for Emergency Department (ED) and OB Triage

- A. In order to rapidly identify and isolate patients who may be infectious, providers should evaluate each patient presenting with symptoms concerning for COVID-19 according to the [adult](#) and [pediatric](#) algorithms.

- B. Management of symptomatic patients with suspected COVID-19, COVID-19 exposed, and confirmed COVID-positive patients will be similar.
- C. Place patient on ["Novel Respiratory Isolation"](#).
 - 1. PPE for all health care personnel will include:
 - a. N95 and face shield or PAPR
 - b. Gloves
 - c. Gown
- D. Room placement
 - 1. If patient is not receiving a continuous aerosol generating procedure, place them in a private room with the door closed
 - 2. For patients who are receiving [continuous aerosol generating procedures](#) place patient in AIIR/negative pressure room
 - a. Examples of continuous AGPs include high flow oxygen, non-invasive ventilation, mechanical ventilation, tracheostomy in place.
 - b. If an AIIR/negative pressure room is not available, place patient in private room with door closed until room is available.
 - c. Do not place patient in a positively-pressured room (e.g., do not place in a Protected Environment room)
- D. Signage
 - 1. Post the 'Novel Respiratory Isolation' sign on the door of the patient's room.
 - 2. Keep doors to the AIIR/ATD rooms, including anteroom doors, closed except when healthcare personnel or patients enter or exit the room
- E. For all aerosol generating procedures, irrespective of concern for COVID-19 infection:
 - 1. Healthcare personnel are strongly recommended to wear an N95 respirator and eye protection or PAPR, plus other PPE as appropriate.
 - 2. For patients receiving non-continuous aerosol generating procedures (e.g. nebulized medication), place the aerosol-generating procedure sign on door during and for 1 hour after completion of the procedure. Healthcare personnel should wear N95 and eye protection (or PAPR) when entering the room and for 1 hour after the procedure (may be shorter depending on the procedure room's number of air changes/hour).
- E. ED Discharge to home: If the patient is not admitted to the hospital and is discharged home and has a COVID-19 test pending:
 - 1. Instruct the patient to quarantine at home pending the COVID-19 test result.
 - 2. Provide the patient with information, [CDC's interim guidance if you are sick](#), about infection control practices to use at home including diligent handwashing, cough etiquette, social distancing and masking if appropriate
 - 3. Give and instruct the patient to wear a medical mask if tolerated, safe, and age appropriate as they leave the hospital.
- F. After patient leaves the ED:
 - 1. Clean room with approved hospital disinfectant including blood pressure cuff, stretcher, counters, bedside table etc. Discard contaminated supplies.
 - 2. If an AGP was performed, keep exam room empty with door closed and maintain appropriate isolation signage for 1 hour after the last AGP was performed.

3. If the patient support assistant wears the appropriate PPE described in the algorithms above, they can clean the room prior to the one-hour wait time since the last AGP.

H. Discontinuation of isolation criteria for COVID-19 confirmed patients:

1. For COVID-19 positive patients refer to the following guidance for [duration of isolation](#). If questions arise, contact HEIP.
2. If date of symptom onset cannot be determined, or patient is asymptomatic, the date of the first positive COVID-19 PCR test should be used.

VIII. Ambulatory Areas

- A. Refer to [COVID-19 Clinical Resources](#).
- B. If an ambulatory patient arrives in the clinic and is noted to have symptoms concerning for COVID-19, has had an exposure to someone with COVID-19 within the previous 14 days, or has a known COVID-19 diagnosis:
 - a. Room the patient immediately with door closed
 - b. Place 'Novel Respiratory Isolation' sign on door
 - c. Healthcare personnel entering room must wear PPE consistent with Novel Respiratory Isolation.
 - e. Refer patient to the Respiratory Screening Clinic or ED if clinically appropriate.

IX. Procedural and Operative Areas

- A. The Prepare Clinic algorithms provide recommendations for pre-procedural patient COVID PCR testing: [adult](#) and [pediatric](#).
- B. The perioperative and preprocedural PPE and workflow recommendations are available for [adult](#) and [pediatrics](#).

X. Inpatient Management

- A. Inpatient management of asymptomatic patients with COVID-19 test results pending
 1. The algorithms guide room type, PPE recommendations, isolation signage/orders, and testing for asymptomatic patients with COVID-19 test pending: [adult](#) and [pediatric](#).
- B. Inpatient management of symptomatic patients with suspected COVID-19, COVID-19 exposed, and confirmed COVID-positive patients
 1. In order to rapidly identify and isolate patients who may be infectious, providers should evaluate each patient for signs or symptoms concerning for COVID-19 according to the adult and pediatric clinical algorithms. The algorithms guide room type, PPE recommendations, isolation signage/orders, and testing: [adult](#) and [pediatric](#).
 2. Place patient on "[Novel Respiratory Isolation](#)". PPE for all health care personnel must include:
 - a. N95 and face shield or PAPR
 - b. Gloves
 - c. Gown
 3. Room placement
 - a. For patients who are receiving [continuous aerosol generating](#) procedures, place the patient in an AIIR/ATD room and order 'Airborne Isolation' in addition to 'Novel Respiratory Isolation' to guide room placement.
 - i. Examples of continuous AGPs include high flow oxygen, non-invasive ventilation, mechanical ventilation, tracheostomy in place.

- ii. If an AIIR/ATD room is not available, place the patient in a private room with door closed until room is available.
 - iii. Do not place the patient in a Protected Environment room that is positively-pressured.
 - b. Prior to admitting these patients, the accepting primary nurse will:
 - i. Verify from Facilities via [MCSS Work Order](#) that the room is at negative pressure for patient receiving a continuous AGP and the green Facilities tag is affixed to the door(s).
 - ii. Obtain and enact all activities detailed in the [Novel Respiratory Isolation Evaluation Room Packet](#).
 - c. If patient is not receiving a continuous aerosol generating procedure, place them in a private room with the door closed.
- 4. Signage
 - a. Post the 'Novel Respiratory Isolation' sign on the door of the patient's room.
 - b. For patients on both Novel Respiratory Isolation and Airborne Isolation, keep doors to the AIIR/ATD rooms, including anteroom doors, closed at all times except when healthcare personnel or patients enter or exit the room.
- 5. Isolation Order
 - a. In Apex, order '**Novel Respiratory Isolation**'; also add '**Airborne Isolation**' if appropriate (see above).
- 6. At the time of admission
 - a. Educate the patient about the reasons for isolation precautions.
 - b. Instruct patients
 - i. Ask patients to cover their mouth and nose with a tissue when coughing or sneezing and to wear a medical mask when healthcare personnel or visitors are in the room and anytime that they need to leave their room
 - ii. During transport and when healthcare personnel are in the patient room, ask the patient to wear a medical mask unless medically contraindicated. Patients ≤ 2 years of age should not be masked because it is not safe. Other young children > 2 years of age should be offered a mask if it is safe and tolerated. For younger children, if safe, cover the crib with a clean sheet during transport.
 - iii. Ask patients to remain in the room at all times with the doors closed unless emergency diagnostic or therapeutic procedures (e.g., CAT scan, surgery, etc.) are urgently required and cannot be performed in the patient's room. When leaving the room, the patient must disinfect hands, put on a clean hospital gown, put on a medical mask (if safe and age appropriate), and a clean sheet on the patient's body (See "[Transport of Patient](#)"). If the patient is a younger child, cover the crib with a clean sheet during transport if safe.
- 7. During admission
 - a. Refer to the [adult](#) and [pediatric](#) clinical algorithm for room type, PPE recommendations, isolation signage/orders and testing recommendations.
 - i. Follow UCSF guidance available on the [UCSF Health COVID-19 Clinical Resources](#) website for COVID-19 treatment or additional diagnostic recommendations (including discussion of false negative results). For questions on management of adult patients contact the COVID ID attending (page 415-443-0190) and for pediatric patients contact the pediatrics ID service (page 415-443-2384).
- 8. Discontinuation of isolation for patients with confirmed COVID-19:
 - i. [Guidance for Discontinuing Isolation for COVID-19 positive patients](#)
 - ii. Refer to [FAQs](#) for additional guidance and if questions arise, contact HEIP.

- iii. For patients who are severely immunocompromised follow:
[Immunocompromised workflow](#)
 - 9. COVID-19 confirmed discharges:
 - a. **Notify the Pathology Department prior to autopsy** procedures for deceased patients with suspected or confirmed COVID-19. See "[Autopsy Guidance](#)"
 - b. For environmental and equipment cleaning instructions, see "[Cleaning and Disinfection of Environment and Equipment](#)"

XI. Limiting staff contacts

- A. Instruct dietary personnel and non-essential personnel not to enter the patient room for patients with in Novel Respiratory Isolation

XII. Laboratory

- A. All clinical specimens for patients who have pending COVID-19 testing or confirmed infection should be handled using Standard Precautions in accordance with routine procedures. Standard precautions include:
 - 1. No need for separate labeling of specimens as suspected/confirmed COVID-19
 - 2. No need for double bagging of specimens
 - 3. Acceptable to submit specimens via the [pneumatic tube system](#)

XIII. Food service

- A. Nutrition and Food services staff should not enter 'Novel Respiratory Isolation' rooms
- B. Manage food service according to routine procedures. Nutrition and Food services staff can receive the soiled tray wearing gloved hands directly outside of the patient room. Place the soiled tray in the soiled food service cart. Remove gloves and clean hands.
- C. Use of disposable trays is not recommended.

XIV. Trash and Linen

- A. Ensure accessibility to trash receptacles inside and outside the patient's room.
- B. Coordinate with Hospitality to hand off soiled linen and trash at times other than daily room clean.
- C. Hospitality will handle trash and linen according to routine processes.
- D. Sharps and non-hazardous pharmaceutical containers will be handled according to routine processes.

XV. Cleaning and Disinfection of Environment

- A. Room Pre-Occupancy Preparation (no PPE required)
- B. Follow the recommendations in the [Hospitality Isolation Sign and Cleaning Responsibilities](#)
- C. Place soiled linen collection container in anteroom, or in patient room if no anteroom.
- D. Personal Protective Equipment (PPE): Clean hands before putting on and after removing PPE every time.
 - 1. Hospitality staff will wear PPE as directed on the isolation sign.
 - 2. Clean hands prior to entering room and when removing PPE.
- E. Cleaning Procedures
 - 1. Follow standard procedures for routine daily and discharge patient room cleaning (see XIV. Trash and Linen above).
- F. Following discharge or transfer from the room
 - 1. For 'Novel Respiratory Isolation', default to considering the patient room contaminated for 1 hour (>99% removal efficiency) after the patient leaves. The room should remain vacant with doors closed for that interval of time. After 1 hour, discharge cleaning of the room will be performed prior to the admission of the next

patient. Depending on the number of air changes per hour, the time the room needs to remain closed may be less than 1 hour.

2. Change privacy curtains.

G. Following cleaning

1. 'Novel Respiratory Isolation' sign: Hospitality staff will page the Hospitality supervisor to report that cleaning is complete. The supervisor must visually inspect the room then will remove the Novel respiratory isolation sign and inform nursing unit staff that the room has been cleaned and is ready for re-occupancy.

XVI. Cleaning and Disinfection of Equipment

- A. Perform hand hygiene before putting on and after removing PPE.
- B. Clean equipment and/or devices that are not disposable to remove any blood or body fluids and disinfected with hospital-approved detergent-disinfectant. Cleaning and disinfection must be completed before the equipment is stored in the clean equipment area and before being used for other patients.
- C. Clean and disinfect equipment in the patient room or in the anteroom unless space constraints make this impossible.
- D. Thoroughly wet equipment surface(s) with hospital approved detergent-disinfectant and allow to remain undisturbed for the contact time specified by the disinfectant.
- E. All persons entering a 'Novel Respiratory Isolation' room will clean hands and wear PPE as directed on the isolation sign.
- F. If cleaning/disinfecting equipment in the anteroom, perform hand hygiene and wear PPE as directed on the isolation sign.

XVII. Transport

The patient should remain in his/her room at all times with the doors closed unless emergency diagnostic or therapeutic procedures (e.g., CT scan, surgery, etc.) are required and cannot be performed in the patient's room.

- A. Notify the receiving area to which the patient is being transported that the patient is on 'Novel Respiratory Isolation.' If possible, schedule these patients at the end of the day or when other patients are not waiting.
- B. For detailed information, review the [PPE recommendation for transport](#) guidance. Transporters will wear PPE as directed on the isolation sign prior to entering the patient's room and before transferring the patient to a wheelchair or gurney.
- C. Before leaving the room, the patient should clean their hands, put on a clean hospital gown, and put on a medical mask. Use a clean sheet that was not stored in the room to cover the patient's body before leaving the room. If the patient is a younger child, cover the crib during transport if safe.
- D. Once the patient has been transferred to a wheelchair or gurney, the transporter should remove gowns and gloves in the anteroom or patient room if no anteroom, clean hands, and keep face protection on during transport (N95 and face shield or PAPR). If direct patient care is expected, the transporter can use their clinical judgement and leave the gowns and gloves on during transport. If this is done, then staff cannot touch buttons, railings, and their surroundings with gloved hands.
- E. If direct patient care is not expected and gloves and gowns are removed, the transporter will bring extra PPE (gown, gloves, medical mask) in case an emergency occurs during transport or the patient's mask becomes wet.
- F. Receiving personnel (e.g., in radiology) and the transporter (if assisting with transfer) should perform hand hygiene and wear the PPE indicated for the study (i.e., N95 and face shield or PAPR, addition of gown and gloves if direct contact with the patient is anticipated).
- G. If still wearing their original face protection, the transporter should take care to avoid self-contamination when donning the remainder of the recommended PPE.

- H. Patients traveling to the Operating Room must be transported directly to the OR from their rooms.

XVIII. Visitation Guidance

- A. Visitor restriction policies for the ambulatory, ED, and inpatient settings are in compliance with the City and County of San Francisco Department of Public Health Orders.
- B. Detailed recommendations are available in the [UCSF Health COVID-19 Guidelines for Restrictions and Exceptions](#). For specific pediatric caretaker guidance, review in the visitor guidelines.

XIX. Exposure Management and Contact Tracing:

- A. Definition of Exposure: Any contact with someone with confirmed COVID-19 during their infectious period for ≥15 minutes within 6 feet of the infected person without appropriate PPE cumulatively over a 24-hour period, or presence during an aerosol generating procedure without appropriate PPE for any amount of time. The infectious period for the infected source begins 48 hours before symptom onset or if asymptomatic, the date of the positive test. See [Exposure Definitions for Testing and Return to Work Decisions](#)
- B. Responsibilities of Hospital Epidemiology and Infection Prevention (HEIP):
 - 1. Review the positive culture report daily for positive COVID-19 test results.
 - 2. Notify Occupational Health Services (OHS) with positive test result information and conduct an exposure investigation. If an exposure is confirmed, there is a joint discussion with OHS (leadership and staff) to confirm a case definition for an exposure.
 - 3. If needed, perform a clinical review of the case to determine additional testing recommendations.
 - 4. Inform patients with UCSF healthcare-associated exposures to COVID-19, and their providers, about exposures and recommendations.
 - 5. Collaborate with OHS to send out an SBAR summary e-mail notification to stakeholders communicating decisions and follow up actions.
- C. Responsibilities of Occupational Health Services (OHS):
 - 1. An overview of [exposure, testing, return to work, and contact tracing is available](#) here.
 - 2. Provide self-monitoring instructions to all healthcare personnel who have entered the patient's room.
 - 3. Contact the supervisors of departments with exposed employees according to OHS processes to enhance case-finding.
 - 4. Record all exposures and exposed employee information.
 - 5. Arrange for post-exposure education and monitoring.
 - 6. Instruct exposed employees to measure their own temperatures twice daily and to monitor themselves for symptoms (e.g. cough, shortness of breath or trouble breathing, loss of taste or smell) during their 14-day incubation period.
 - 7. Evaluate employee exposures and symptoms to determine the need for work restrictions and/or COVID-19 testing. Employees who have had COVID-19 infections must obtain OHS/EHS clearance prior to returning to work.
- D. Responsibilities of Supervisors/Directors and Service Chief/Attending Roles:
 - 1. Assist OHS with identification of the services and staff/providers involved in care of patient
 - 2. Provide OHS with names, roles, and contact information of staff/providers in their dept/service
 - 3. If an email notification is indicated as part of the contact tracing process, will assist in dissemination to those affected providers, staff, and/or learners

XXII. Engineering Controls

- A. Airborne Infection Isolation Rooms (AIIRs)/ATD rooms:
 - 1. Ventilation requirements for these rooms include:
 - a. A minimum of 12 air changes/hour
 - b. Direct air exhaust to the outside or HEPA filtration of air prior to recirculation
 - c. Maintenance of negative pressure relationships with the adjacent corridor as confirmed by smoke stick testing.
- B. Regular monitoring and maintenance of engineering controls
 - 1. Engineering controls, including all negative air pressure areas of the hospital and HEPA filtration systems, undergo regular monitoring and maintenance by the Facilities Management.
- C. AIIR/ATD rooms in the Emergency Department
 - 1. The Parnassus and MB Emergency Department AIIRs must be verified by Facilities as “negative” before being used for patients on Airborne Precautions.
 - 2. The Oakland campus has no AIIRs in the Emergency Department. Room 5 has negative pressure and would be the preferred location for a suspect COVID-19 patient.

XXIII. Sputum Induction and Bronchoscopy Procedures

- A. Policies and procedures
 - 1. During any aerosol generating procedure on a patient with suspected or confirmed COVID-19 or on Novel Respiratory Isolation due to COVID-19 exposure, healthcare personnel in the patient’s room must wear a gown, gloves, PAPR or N95 respirator with goggles or face shield during the procedure and whenever entering room during the hour after the AGP. Place an aerosol generating procedure sign on door during the AGP and keep in place during the hour after the AGP.
 - 2. PPE guidance for aerosol-generating procedures is available [here](#).
 - 3. Avoid sputum induction for patients with suspected or confirmed COVID-19.
- B. Bronchoscopy
 - 1. Bronchoscopy will be performed on suspected COVID-19 patients only when medically necessary.
 - 2. Patients with diagnosed or suspected COVID-19 requiring bronchoscopy must have the procedure performed in an AIIR or negative pressure HEPA filtered area (e.g., Endoscopy Suite).
 - 3. Patients must remain in the room until coughing has subsided. Advise the patient to cover their mouth and nose with a tissue when coughing.
 - 4. A medical mask will be worn by the patient during transport.
 - 5. The procedure room must not be used for at least 1 hour following bronchoscopy to allow sufficient time for appropriate ventilation. Depending on the location, if the air changes per hour are higher, then the time the room is contaminated may be less than 1 hour.

XXIV. Decedent care

- A. Follow standard routine procedures when transporting the body after specimens have been collected and the body has been bagged. Disinfect the outside of the bag with a product with EPA-approved emerging viral pathogens claims expected to be effective against COVID-19 applied according to the manufacturer’s recommendations. Wear disposable nitrile gloves when handling the body bag.

XXV. Clinical Laboratory and Autopsy Procedures

- A. Clinical laboratories
 - Send specimens to UCSF Microbiology Laboratory.
- B. Other Clinical Laboratory Tests

Do NOT order viral isolation (culture) to be performed at UCSF. Specimens will not be accepted for viral isolation/culture. PCR testing (rapid influenza/RSV and respiratory viral panel) may be ordered.

C. Autopsy

1. Notify Pathology prior to autopsy on a patient with suspected or confirmed COVID-19.
 - a. The autopsy will occur in the AIIR of the Pathology Laboratory.
 - b. See CDC recommendations for collection of postmortem clinical and pathology specimens for SARS-CoV-2 testing [here](#).
 - c. Limit the number of personnel working in the Autopsy suite during the autopsy procedure.
 - d. Staff involved in the autopsy procedure must wear a fluid-resistant or impervious gown with full sleeve coverage; waterproof apron; goggles or face shield; N95 respirator that they have been fit tested for or PAPR; and double surgical gloves with an interposed layer of cut-proof synthetic mesh gloves.
 - e. Staff may wear surgical scrub suits, surgical cap, and shoe covers per Autopsy routine protocols.
 - f. Protective outer garments must be carefully removed when leaving the autopsy room and discarded in appropriate orange biohazard-lined trash and soiled laundry receptacles immediately outside the entrance. Hands must be disinfected upon removal of personal protective equipment. Clean and disinfect any reusable PPE per manufacturer's instructions prior to reuse.
 - g. The autopsy AIIR will be vacated for at least 1 hour following completion of the autopsy.
 - h. Avoid aerosol-generating procedures such as the use of oscillating saws whenever possible to decrease the risk of occupational exposure. Consider the use of hand shears as an alternative cutting tool. If an oscillating saw must be used, attach a vacuum shroud to contain aerosols.

XXV. Coordination with the Department of Public Health

Upon notification of a possible COVID-19 case, HEIP will:

1. Evaluate the possibility that the patient has COVID-19.
2. If the patient meets the CDC's case criteria, HEIP will report pertinent information immediately to the appropriate local Department of Public Health (DPH).