



COVID-19 Testing at the Alameda County Public Health Department (ACPHD): Test request, prioritization, and specimen collection and shipping procedures Updated 4/3/2020

New Items:

- On March 24, 2020 the Centers for Disease Control and Prevention (CDC) updated priority populations for testing and expanded options for specimen collection (see <https://www.cdc.gov/coronavirus/2019-nCoV/hcp/clinical-criteria.html>).
- On April 3, 2020, the Alameda County Health Officer issued blanket isolation orders that apply to all persons diagnosed with suspected or confirmed COVID-19, and blanket isolation orders that will apply to close contacts of cases. ACPHD directs health care providers to disseminate these blanket orders to all patients being tested for COVID-19 (by any laboratory) or who are presumptively diagnosed with COVID-19 without testing before they leave the health care facility. <http://www.acphd.org/2019-ncov/resources/quarantine-and-isolation>.

Although clinicians may order the COVID-19 test on any patient for whom they believe it is clinically indicated, ACPHD will focus Alameda County Public Health Laboratory (ACPHL) testing on patients with **COVID-19 symptoms and are in one of the following highest priority groups:**

- Health care personnel (HCP)
- Staff or patients, residents and participants in skilled nursing facilities (SNF), Residential Care Facilities for the Elderly (RCFE), or Adult Day Health (ADH) programs
- Correctional facility inmates and staff
- Residents and staff of residential alcohol and drug rehabilitation and treatment facilities
- Older adults (age \geq 65 years) and individuals with chronic medical conditions
- Hospitalized patients, if results would inform decisions related to infection control or medical management
- Emergency response personnel (e.g., law enforcement, fire fighters) who are assigned to work in the

For patients with suspected COVID-19:

1. **Immediately institute COVID infection control precautions.** Place a surgical mask on the patient and place the patient in an airborne infection isolation room if possible. If not, place them private room with the door closed and signage indicating airborne, contact, and standard precautions with eye protection should be used. Do not allow the patient to wait in a waiting room.
2. **Conduct the patient history and clinical examination and collect specimens if COVID-19 is clinically suspected.**

Preferred method: Collect NP swab specimens using synthetic fiber swab with plastic or aluminum shaft. Calcium alginate swabs or swabs with wooden shafts are not acceptable. Place swab immediately into sterile tube containing 2-3 ml of viral transport media (VTM) or universal transport media (UTM).



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Alternate methods for COVID-19 specimens if NP swab, VTM, or UTM not available:

- A nasal mid-turbinate (NMT) swab using a flocked tapered swab or
- An anterior nares specimen (NS) using a round foam swab or
- An oropharyngeal (OP) specimen (but may be less sensitive test if used alone)
- For NS, use a single polyester swab with a plastic shaft to sample both nares.
- Place NS or NMT swabs in a transport tube containing either viral transport medium, Amies transport medium, or sterile saline.
- If both NP and OP swabs are collected, combine in a single tube.

Lower respiratory tract specimens: Only collect sputum if the patient can spontaneously cough up a deep sputum sample, and do not perform sputum induction. If the patient is intubated, you may collect a tracheal aspirate. Lower respiratory tract specimens cannot be tested at ACPHL so the testing turnaround time for these specimens will be longer. Do not collect serum.

3. **Label the specimens completely.** Incomplete or incorrect labeling will delay testing and may result in cancellation of testing. PUI ID number is no longer required for testing at ACPHL.

Write on the specimen vial:

- Patient name
- Date of collection
- Specimen type

4. **Complete ACPHL specimen submittal forms, one for each specimen.** Incomplete specimen submittal forms will delay result reporting. Required fields:

- Patient name, date of birth, sex
- Patient address
- Ordering clinician name and telephone number
- Submitting laboratory name, address, phone number and fax number
- Specimen collection date and time
- Specimen source
- Test name, COVID 19 PCR
- See **Specimen Collection, Packaging, and Shipping** section for details on sending the specimen to the ACPHL.

5. **Complete the CDC's COVID-19 Person Under Investigation form if testing is requested from ACPHL.** Download from <https://www.cdc.gov/coronavirus/2019-ncov/downloads/pui-form.pdf>. **Write on the form (or in the email) whether patient fits into one of the ACPHD highest priority groups, and if so, which.** If patient is a staff or resident in a Skilled Nursing Facility, Residential Care Facility for the Elderly or Adult Day Health, please note the facility name and location on the top of the form. Send this form, along with the Specimen Submittal Form to ACPHD for review and prioritization. Fax to 510-273-3744



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OR securely email to AcuteCD@acgov.org. If emailing, put in the subject line, Request for COVID-19 testing.

6. **Advise patient to self-isolate until results return.** Please provide a few surgical masks to the patient in case they must return to a health care setting.
 - a. Print out and give the ACPHD Health Officer Isolation and Quarantine Orders Packet to all patients being tested for COVID-19 or in whom you strongly suspect COVID-19 but will not be testing. The Orders Packet is posted at <http://www.acphd.org/2019-ncov/resources/quarantine-and-isolation>.
 - b. Place a patient identification sticker or handwrite the patient's name on the Health Officer Order of Isolation.
 - c. Instruct patient to self-isolate at home while waiting for the results of COVID-19 testing (if being tested) and to adhere to the Health Officer Order of Isolation if their COVID-19 test results are positive or if you diagnose them with COVID-19 without laboratory testing. Advise them to follow all directions in the ACPHD Home Isolation and Quarantine Instructions.

7. **Test turnaround time at ACPHL** is currently one to two business days from the time specimens are received for specimens from patients in the highest priority groups. This may change depending on testing volume. Results will be sent to your healthcare facility. Specimens from lower priority groups may be frozen and tested at a later date. **Please do not call the ACPHL for results. They may only release them to the ordering lab and provider.**



Specimen Collection, Packaging, and Shipping

Maintain proper infection control when collecting specimens: use standard, contact and airborne precautions along with eye protection (goggles/face shields).

The Centers for Disease Control and Prevention (CDC) changed its guidance on 3/24/2020 to collect only a NP swab. Lower respiratory tract specimens may be submitted but only if clinically indicated and must be sent to the CDC for testing. **Do not send serum or other specimen types.**

Respiratory Specimens

A. Upper respiratory tract

Preferred method: Collect NP swab specimens using synthetic fiber swab with plastic or aluminum shaft. Calcium alginate swabs or swabs with wooden shafts are not acceptable. Insert a swab into the nostril parallel to the palate and rotate for a few seconds to absorb secretions. Swab both nasopharyngeal areas with the same swab. Place swab immediately into sterile tube containing 2-3 ml of viral transport media (VTM) or universal transport media (UTM).

Alternate methods for COVID-19 specimens if NP swab, VTM, or UTM not available:

- A nasal mid-turbinate (NMT) swab using a flocked tapered swab or
- An anterior nares specimen (NS) using a round foam swab or
- An oropharyngeal (OP) specimen (but may be less sensitive test if used alone)
- For NS, use a single polyester swab with a plastic shaft to sample both nares.
- Place NS or NMT swabs in a transport tube containing either viral transport medium, Amies transport medium, or sterile saline.
- If both NP and OP swabs are collected, combine in a single tube.

B. Lower respiratory tract, only if clinically indicated

- Sputum: Only if patient has productive cough. Sputum induction is not recommended. Have the patient rinse the mouth with water and expectorate deep cough sputum directly into a sterile, leak-proof, screw-cap sputum collection cup or sterile dry container.
- Bronchoalveolar lavage, tracheal aspirate (only if bronchoscopy is clinically indicated or if patient requires intubation): Collect 2-3 mL into a sterile, leak-proof, screw-cap sputum collection cup or sterile dry container.
- Lower respiratory tract specimens cannot be tested at ACPHL so the testing turnaround time for these specimens will be longer.



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Specimen submittal forms

An ACPHL specimen submittal form must be completed for each specimen and accompany the specimens to the ACPHL. Incomplete specimen submittal forms will result in delayed result reporting. Required fields:

- Patient name, date of birth, sex
- Patient address
- Patient medical record number
- Ordering clinician name and telephone number
- Submitting laboratory name, address, phone number and fax number
- Specimen collection date and time
- Specimen source
- Mark test name, COVID 19 PCR

Packaging and Shipping to ACPHL

- Refrigerate specimen at 2-8°C until ready to ship.
- Specimen containers should be securely sealed and closed, parafilm wrapped around the caps, and placed in a zip lock (ACPHL) specimen bag with an absorbent pad inside, large enough to soak up volume of container contents. The bag must be completely zipped shut and placed in a secondary container that should be metal or plastic if possible.
- **If possible**, package according to Category B, UN 3373 shipping standards. Place in appropriate box, or a bag if no box is available. Place a cold pack inside the box if possible. Address the box/bag to: **Alameda County Public Health Laboratory, 2901 Peralta Oaks Court, 2nd floor, Oakland, CA 94605**. Store box/package at refrigerator temp (2-8°C) until courier arrives and throughout transit to ACPHL. Unfortunately, due to high volumes of testing requests, ACPHD is no longer able to provide expedited courier services for transporting COVID-19 specimens to ACPHL. **ACPHL can accept specimens Monday through Friday, 8:30 am to 5 pm.**