Guidance for Clinicians

Evaluation and Testing for COVID-19 Novel Coronavirus Infection

**Updated March 6, 2020**

CDC has expanded its criteria for testing to include a wider group of symptomatic patients. CDC encourages clinicians to use their judgment to determine if a patient has signs and symptoms compatible with COVID-19 and whether they should be tested (see [https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-criteria.html](https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-criteria.html)).

The San Francisco Public Health Laboratory (SFPHL) is now able to test for SARS-CoV-2, the virus that causes COVID-19, however current capacity for testing by public health is very limited.

COVID-19 testing is currently being offered by some clinical and commercial labs (including LabCorp), and additional laboratories are expected to offer testing within the coming days to weeks. **Given limitations in public health capacity to test, clinicians are encouraged to pursue testing in clinical and commercial labs if they do not meet the SFDPH clinical criteria outlined below.**

### SFDPH Criteria for COVID-19 Testing at the San Francisco Public Health Laboratory

1. Hospitalized patients with pneumonia/ARDS and no etiology identified
2. Fever OR respiratory symptoms in a close contact of a patient with lab-confirmed COVID-19 within 14 days of symptom onset

These criteria are narrower than CDC criteria and are intended to prioritize COVID-19 testing by the SF Public Health Laboratory to identify patients at higher risk of having or transmitting COVID-19.

In addition, San Francisco clinicians and clinical facilities are recommended to:

- **Identify patients who may have a febrile respiratory illness**
  - Place visible signage requesting visitors with a fever and recent international travel to immediately notify healthcare staff. COVID-19 travel alert posters are available at [www.sfcdcp.org/covid19hcp](http://www.sfcdcp.org/covid19hcp).
  - Screen all patients at triage for signs or symptoms of febrile respiratory illness and if present, the patient should wear a surgical mask and be placed in a private room with the door closed or separated from others by at least 6 feet.
  - Ensure all healthcare workers interacting with the patient don a surgical mask.

- **Evaluate whether the patient’s presentation is compatible with COVID-19 and whether they should be tested**
  - All patients with suspected COVID-19 should also be tested for common causes of respiratory infection and pneumonia as clinically indicated. Note that the coronavirus test available on molecular viral testing panels may not test for the novel coronavirus COVID-19.
  - Patients who meet SFDPH COVID-19 criteria for testing, above.
    - See specimen collection and handling instructions, below.
    - Contact SFDPH Communicable Disease Control & Prevention by phone at 415-554-2830 from 8am-5pm to request a case number to send specimens to SFPHL.
Patients who do not meet SFDPH COVID-19 criteria for testing, but the provider assesses that testing may be indicated:

- Clinicians may arrange for testing via non-public health laboratories as available. Check with the specific laboratory for details regarding its specimen collection and handling guidelines.
- There is no need to contact SFDPH when arranging testing via non-public health laboratory.
- Per Title 17, California regulations require that all cases of COVID-19 must be reported to SFDPH at 415-554-2830.

- **Observe infection control procedures for suspected COVID-19 patients**
  - Ensure the patient is wearing a surgical mask
  - Isolate the masked patient in a private room with the door closed. Isolation in an airborne infection isolation room (AIIR) is preferred, if available
  - Wear appropriate personal protective equipment (PPE) consisting of gloves, gown, respiratory protection (N95 mask or PAPR) and eye protection (goggles or face shield).
  - Observe standard, contact, and airborne precautions plus eye protection.

- **Disposition**
  - While awaiting COVID-19 test results, patients sick enough to require hospitalization should be managed according to CDC guidelines for infection control in healthcare settings. See: [https://www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html](https://www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html)
  - While awaiting COVID-19 test results, patients well enough to recuperate at home may be discharged to home with instructions to self-isolate at home until results of testing are available. Printable instructions are posted at [https://www.sfcdcp.org/covid19hcp](https://www.sfcdcp.org/covid19hcp)
Specimen Collection Instructions – San Francisco Public Health Lab

CDC recommends the collection of specimens from the upper respiratory tract. Specimens should additionally be collected from the lower respiratory tract only if recommended in consultation with SFDPH.

1. Upper respiratory tract

- **Nasopharyngeal swab AND oropharyngeal swab (2 specimens):** Use a synthetic fiber swab with plastic shaft. Do not use calcium alginate swabs or swabs with wooden shafts.
  - **Nasopharyngeal:** insert swab into nostril parallel to the palate, leave swab in place for a few seconds to absorb secretions. Swab both nasopharyngeal areas with the same swab.
  - **Oropharyngeal:** swab the posterior pharynx, avoiding the tongue.
  Place each swab into a separate sterile tube, each with 2-3 ml of viral transport media. Do NOT combine NP/OP swab specimens; keep swabs in separate viral transport media collection tubes. Refrigerate at 2-8°C.

  OR

- **Nasopharyngeal wash/aspirate or nasal aspirate:** collect 2-3 mL into a sterile, leak-proof, screw-cap sputum collection cup or sterile dry container. Refrigerate at 2-8°C.

**Note:** NP and OP swabs must be placed in viral transport media, such as ones used to collect NP swabs for influenza testing, shown here. Improper collection, such as placing swabs in bacterial culture media, will void the specimen and delay testing.

2. Lower respiratory tract (only if recommended in consultation with public health)

- **Sputum:** Collect sputum only if the patient is producing sputum; **do not perform sputum induction procedures.** Have the patient rinse the mouth with water and then expectorate deep cough sputum directly into a sterile, leak-proof, screw-cap sputum collection cup or sterile dry container. Refrigerate at 2-8°C.

  OR

- **Bronchoalveolar lavage, tracheal aspirate, or pleural fluid:** 2-3 mL in a sterile, leak-proof, screw-cap sputum collection cup or sterile dry container. Refrigerate at 2-8°C.

If indicated, SFDPH may request the additional following specimens:

- **Serum:** Collect 1 tube (5-10 mL) of whole blood in a serum separator tube. For pediatric patients a minimum of 1 mL of whole blood is needed in a serum separator tube.

- **Stool:** Collect and place in a sterile, screw-cap, leak-proof container without preservative.
• **Urine:** Collect a minimum of 10mL in a sterile, screw-cap, leak proof container without preservative.

Note: If specimens cannot be collected at the healthcare facility, do not refer the patient to another facility to obtain specimens. Instead, notify SFDPH to discuss.

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**Specimen Handling Instructions – San Francisco Public Health Lab**

Upon approval by SFDPH, arrangements will be made for prompt transport of specimens for COVID-19 testing to the San Francisco Public Health Laboratory (SFPHL). Use Category B infectious substance packaging instructions and transport on a cold pack. The SFPHL will process specimens for testing.

*Do not send specimens directly to CDC or CDPH.*

For biosafety reasons, it is not recommended to perform viral isolation in cell culture or initial characterization of viral agents recovered in cultures of specimens from a person under investigation for 2019-nCoV.

Please complete the SFPHL General Requisition Form, available here: [https://www.sfcdcp.org/public-health-lab/forms-specimen-culture-submission/](https://www.sfcdcp.org/public-health-lab/forms-specimen-culture-submission/).

CDC Interim Guidelines for Collecting, Handling, and Testing Clinical Specimens from Patients Under Investigation (PUIs) for 2019 Novel Coronavirus

CDC 2019 Novel Coronavirus Guidance for Laboratories.