

COVID-19 Laboratory Testing Guidance for Healthcare Providers

Updated May 4, 2020

This is a rapidly evolving situation. Recommendations will be updated and shared as new information becomes available.

This guidance is updated to reflect PCR and serology testing, at both private labs and the Arizona State Public Health Laboratory.

Test guidance

COVID-19 is difficult to distinguish from other respiratory viruses. Depending on the current epidemiologic profile, consider testing for other viral infections including influenza and respiratory viral panel. Priority testing has been approved by the State Disaster Medical Advisory Committee (SDMAC). The public health goal of testing is to limit potential introduction of COVID-19 in healthcare and congregate settings and vulnerable populations. Public health will prioritize testing among three specific groups until sufficient and consistent PPE, testing supplies, and capacity are widely available:

1. Healthcare workers, first responders, and employer identified critical infrastructure personnel* with COVID-19 symptoms
2. Individuals living in congregate settings with symptoms of COVID-19
3. Individuals hospitalized with respiratory symptoms

*critical infrastructure personnel are based on the CISA Infrastructure Sectors: Chemical, Emergency Services, Energy, Nuclear, Water

As we move into the next stage of pandemic response, rapid case identification, case follow up, and contact tracing will help slow the transmission of COVID-19 in our communities. The success of this effort depends on our healthcare teams working together and supporting each other to increase testing.

Recommendation: Expand testing beyond the currently posted testing matrix if there are adequate supplies and PPE to do so.

The testing matrix is intended to indicate approval for testing at the Arizona State Public Health Laboratory (ASPHL), but is not meant to be restrictive to other testing facilities if adequate supplies/reagents are available.

Recommendation: Do not use results from serologic testing as the sole basis to diagnose COVID-19 or to determine immune status.

At this time, it is unclear if the presence of antibodies indicates protection from COVID-19 infection. Serologic test results from a clinical laboratory should continue to be reported according to the Arizona Administrative Code and pursuant to applicable Executive Orders. ADHS and PCHD will continue to monitor the research and consider the role of serologic testing in clinical and public health applications in the months ahead.

Healthy individuals do not require testing. These individuals should practice physical distancing and following PCHD, ADHS, and CDC recommendations.

Individuals wishing to be tested for COVID-19 should see a healthcare provider. DO NOT go to one of the commercial labs (LabCorp or Quest Diagnostics) or the Health Department.

The test detects the presence of the virus that causes COVID-19, however, there is a chance it can pick up similar coronaviruses. For additional information on COVID-19, please refer to CDC website, which is [available here](#).

Commercial laboratory testing is available via:

- LabCorp
<https://www.labcorp.com/information-labcorp-about-coronavirus-disease-2019-covid-19>
- Quest Diagnostics
<https://testdirectory.questdiagnostics.com/test/home>
- Drive-thru testing: Multiple sites in Pima County are standing up drive-thru testing. Patients should contact the provider (e.g., Banner, Walgreens) prior to going to find out about patient eligibility.

Clinicians & laboratorians SHOULD NOT call Public Health to coordinate commercial testing.

Clinicians MUST call Public Health to coordinate ASPHL testing for COVID-19.

For ASPHL testing: (520) 724 -7797 (answered 24/7)

****Patients should NOT GO TO LabCorp or Quest Diagnostics Laboratories for COVID-19 testing.**

****Patients cannot order this test directly.**

Infection Control Precautions

Healthcare Providers & Personal Protective Equipment

When in a room with a patient with, or suspected to have, COVID-19 and **NO aerosol-generating procedures** are being performed, all healthcare personnel should wear:

- Surgical (medical) mask
- Gown
- Gloves
- Eye protection (e.g., goggles or face shield)

Due to the change in transmission-based precautions from airborne to standard, droplet, and contact precautions, it is **NOT NECESSARY** to place a suspect COVID-19 patient or confirmed COVID-19 patient in an airborne infection isolation room (AIIR). **A private room with a closed door is acceptable.**

Patients & Personal Protective Equipment

Individuals with symptoms need to remain in these precautions as long as they have symptoms. Discharged patients should be instructed to remain home while ill.

Specimen Collection by Healthcare Provider – NO COLLECTION at commercial laboratory or Pima County Health Dept.

On April 23, 2020, Dr. Cara Christ, Director of the Arizona Department of Health Services [issued a standing order authorizing](#) any medical provider/trained personnel at a medically-supervised COVID-19 testing unit in Arizona to collect and send a SARS-CoV-2 RT-PCR test for any individual how meets the following criteria:

Individual who is concerned that they have been exposed to and infected with COVID-19

AND

Individual who has signed a consent and voluntary isolation agreement (or parent/guardian, if patient cannot legally consent)

What specimens will be acceptable for testing?

- Preferred samples:
 - Nasopharyngeal (NP) swab in viral transport medium (VTM)

How do I collect specimens?

- Use only synthetic fiber swabs with plastic shafts. Do not use calcium alginate swabs or swabs with wooden shafts, as they may contain substances that inactivate some viruses and inhibit PCR testing. Place swabs immediately into sterile tubes containing 1-3 mL of sterile viral transport media.
- **Nasopharyngeal (NP) swab:** Tilt the patient's head back 70 degrees. Insert a swab into the nostril parallel to the palate. Leave the swab in place for a few seconds to absorb secretions. Slowly remove the swab while rotating it.

Specimen Labeling, Storage, and Shipping

Labeling

Label each specimen container with the patient's ID number (e.g., medical record number), unique specimen ID (e.g., laboratory requisition number), specimen type (e.g., OP) and the date the sample was collected.

Storage & Shipping

The preferred method of shipment is frozen samples; however, samples can be shipped refrigerated at 2-8°C and are stable at this temperature up to 72 hours. If a delay is expected, store specimens at -70°C or below.

Process and ship specimens in accordance with national biological safety regulations, procedures as listed under the [CDC Emergency Authorization Agreement](#), and the supervising healthcare facility.

Send-outs for Healthcare Providers Only- Patients CANNOT Directly Order Tests

All specimens going to a commercial laboratory need to be coordinated by the healthcare provider. Healthcare providers should work within their own healthcare facility to coordinate laboratory send-outs. **Public Health will not be involved in coordinating the send-out.**

How may I order a commercial laboratory test?

- LabCorp
 - Test Code: 139900; <https://www.labcorp.com/tests/139900/2019-novel-coronavirus-covid-19-naa>
- Quest Diagnostics
 - Test Code: 39433; <https://testdirectory.questdiagnostics.com/test/test-detail/39433/sars-cov-2-rna-qualitative-real-time-rt-pcr?p=r&q=sars&cc=MASTER>

Estimated Turnaround Time

What is the turnaround time for LabCorp and Quest Diagnostics Laboratories COVID-19 testing?

LabCorp and Quest Diagnostics Laboratories are reporting a 2-6 day turnaround time.

Turnaround time is defined as the usual number of days from the date of pickup of a specimen for testing to when the result is released to the ordering provider. In some cases, additional time should be allowed for additional confirmatory or additional reflex tests. Testing schedules may vary.

The labs will be operating 7 days a week.

Laboratory Results

Does a negative result for RT-PCR for COVID-19 mean that a patient is definitely not infected?

- Not necessarily. The assay detects the virus directly, within the established limits of detection for which it was validated. However, a negative result does not definitely rule out infection. As with any test, the accuracy relies on many factors:
 - The test might not detect virus in an infected patient if the virus is not being actively shed at the time or site of sample collection
 - The amount of time an individual was exposed prior to the collection of the specimen can also influence whether the test will detect the virus
 - Individual response to the virus can differ
 - Whether the specimen we receive was collected properly, sent promptly, and packaged correctly.
- There are no published studies on the COVID-19 RT-PCR testing characteristics, but it is anticipated that the test is more sensitive for those individuals that are symptomatic.
- Positive results will go directly to the provider and Local Health Authority.
- Negative results will go directly to the provider.

Guidance for Laboratorians

Please see the CDC website for interim guidance and resources for laboratory professionals working with specimens from persons under investigation for COVID-19: <https://www.cdc.gov/coronavirus/2019-ncov/lab/index.html>

Public Health COVID-19 Testing Criteria at Arizona State Public Health Laboratory (ASPHL)

Only patients who meet the Persons Under Investigation (PUI) criteria can be tested at the ASPHL for COVID-19. These requests for testing **must** be approved by PCHD – call 520-724-7797 (24/7).

Criteria to Guide Evaluation of Persons Under Investigation (PUI)		
Clinical Features	Plus	Epidemiologic Risk
Fever ¹ OR signs/symptoms of lower respiratory illness (e.g., cough or shortness of breath) NOT requiring hospitalization	AND	Any person, including health care workers ² , who has had close contact³ with a laboratory-confirmed⁴ COVID-19 patient within 14 days of symptom onset
Fever ¹ AND signs/symptoms of a lower respiratory illness (e.g., cough or shortness of breath) NOT requiring hospitalization in a person with a critical infrastructure occupation* OR who lives in a congregate setting [†]	AND	No source of exposure has been identified
Fever ¹ AND severe acute lower respiratory illness (e.g., pneumonia, ARDS) requiring hospitalization, radiographic confirmation of pneumonia of unknown etiology	AND	No source of exposure has been identified

¹Fever may be subjective or confirmed.

²For healthcare personnel, testing may be considered if there has been exposure to a person with suspected COVID-19 without laboratory confirmation

³Close contact is defined at the CDC website: <https://www.cdc.gov/coronavirus/2019-nCoV/php/risk-assessment.html>

⁴Documentation of laboratory-confirmation of 2019-nCoV may not be possible for travelers or persons caring for patients in other countries.

*Critical infrastructure sectors include: Energy, Water Systems, Healthcare Personnel, First Responders, Nuclear Reactors, Materials and Waste.

[†]Jail/prison, long-term care facility or nursing home, university, or other similar setting

Healthcare providers with questions can call 1-844-542-8201.

For more information, visit <https://www.cdc.gov/coronavirus/2019-ncov/> OR www.pima.gov/covid19