

COVID-19 Re-testing Criteria

RE-TESTING FOR COVID-19

Patients with COVID-19 typically have high titer of virus in the nasopharynx and, therefore, the PCR test for COVID-19 collected using a nasopharyngeal (NP) swab is a sensitive test. Patients' viral loads in the nasopharynx around the time of symptom onset have been shown to be several logs higher than the detection limits of the tests currently being used. Over the course of the illness, levels of virus in the upper airway decline, even in patients with progressive lower respiratory tract illness.

In some patients with a high pre-test probability of infection, repeat testing for COVID-19 may be indicated. Retesting of such patients can only be performed with Infectious Disease (ID) approval and is based on specific guidance developed to assist retesting decisions as indicated below.

PREVIOUSLY NEGATIVE PATIENTS

Persistent COVID-19 Rule Out (initial PCR COVID-19 test negative) for patients with a high pre-test probability for COVID-19 guidance

- Presenting to the hospital with respiratory failure or progressive pulmonary disease (increasing O₂ requirement, impending respiratory failure)
- No documented alternative illness that explains clinical progression (patients with other respiratory viruses identified are not excluded from retesting for COVID-19)
- Clinical course consistent with COVID-19 infection that in most circumstances include all of the following:

- ◆ Fever
- ◆ Progressive cough or SOB or increasing O₂ requirement
- ◆ Bilateral infiltrates on imaging or as suggested by physical exam findings

Also including but not required

- ◆ Lymphopenia
 - ◆ Exposure to COVID-19 positive individual
 - ◆ Travel to high prevalence COVID-19 positive region (in or outside US)
- Patients with a negative COVID-19 PCR test and progressive respiratory infection who have had exposure to a COVID-19 positive individual should be retested.

PREVIOUSLY POSITIVE PATIENTS

Patients with COVID-19 disease can have persistently positive PCR tests for several weeks. The clinical significance of these persistent positive PCR tests is less clear as available data looking at viral cultures demonstrates that viable viral culture growth only lasts for 8-9 days after

symptom onset. Based on these data, clinical endpoints should be used whenever possible. CDC includes the use of clinical endpoints for clinical management and discontinuation of transmission based isolation precautions.

Repeat testing in a previously positive patient is currently indicated if required for transfer to a non-COVID unit within the hospital (e.g. Reeves Rehab) or if required for discharge to a congregate setting (e.g. skilled nursing facility, assisted living, group home). Repeat testing should occur at least 14 days after symptom onset given the high likelihood of persistently positive PCR tests within shorter time frames.

For scheduling elective procedures in patients with a prior positive COVID-19 test over 90 days ago, repeat direct viral testing should be performed similar to patients who have never had a prior positive test as per the [Rescheduling Elective Procedures for Patients with Lab-Confirmed COVID-19](#) guidance.

COVID-19 TESTING GUIDELINES IN EPIC

In order to improve diagnostic stewardship with SARS-CoV-2 PCR testing for screening and evaluating patients for COVID-19 disease, the following electronic interventions have been implemented in Epic:

- Only **one** COVID PCR test may be ordered within a 24 hour period.
 - ◆ If a patient has symptoms compatible with COVID-19 disease, then select the **Patient Under Investigation (PUI) order**. Otherwise, place the **screening order** for asymptomatic patients undergoing select procedures or as part of the inpatient admission process.
- If a patient has a **negative** COVID PCR test within the previous 24 hours, then a repeat test cannot be ordered.
- If a patient has a **positive** COVID PCR test within the previous 90 days, then a repeat test cannot be ordered.
 - ◆ Re-testing previously positive patients is not indicated and should be avoided as patients with COVID-19 disease can have persistently positive PCR tests for several weeks after symptom onset but are no longer infectious. See aforementioned **COVID-19 Re-testing Criteria** for additional guidance.

If a patient meets one of the scenarios outlined above, then an electronic reminder will prompt the ordering provider to remove the order.

Providers with questions regarding SARS-CoV-2 PCR testing restrictions may contact the UHS Microbiology Laboratory at 210-358-2825.

Please note: the COVID-19 situation continues to evolve and this guidance is based on data currently available. Recommendations are subject to change based on future clinical needs and evidence.