



COMBINATION PCR WITH ANTIBODY TESTING

Updated April 24, 2020

NOTE: *The scientific understanding regarding antibody test interpretation, incubation periods, seroconversion and viral shedding needs further research. Recommendations rely on presumptions made based on experience with similar coronaviruses. When interpreting combination results, consider, PCR testing is still being reserved for higher priority patients. Therefore, decision regarding clearance will be driven by the PCR results.*

CURRENT ANTIBODY DATA

- Antibody results are not diagnostic
- Antibody results do not rule out infection or viral shedding
- Day 7 post symptom onset - Antibodies can be detected
- Antibodies increase after day 7
- Day 10-12 post symptom onset – Antibodies detected in up to 80%
- Day 16-29 post symptom onset – Antibodies detected in all patients

NEGATIVE PCR/ NEGATIVE ANTIBODY TESTING

Despite a patient's antibody test results, patients who test negative for PCR should follow the same conservative, post-testing protocols outlined for patients with Negative PCR Testing.

NEGATIVE PCR/POSITIVE ANTIBODY TESTING

Despite a patient's antibody test results, patients who test negative for PCR should follow the same conservative, post-testing protocols outlined for patients with Negative PCR Testing.

Following COVID-19 testing, the PCP should closely monitor patients for worsening of symptoms. Recommended conservative approach to follow up:

- **Two-day, post testing follow-up**
 - **Check on patient symptoms**
 - Re-enforce **14-day tracker use**
 - Re-enforce **home isolation compliance**
 - **Results** will likely be **pending**
- **Third or 4th-day, post testing follow-up**
 - **Discuss test results**
 - **Check** on patient **symptoms**
 - Re-enforce **14-day tracker use**
 - Re-enforce **home isolation compliance**
 - Re-enforce need to **call PCP with any worsening of symptoms**
- **Clearance virtual visit, post-symptom resolution or 14-day post-exposure follow-up**
- For simplicity in guiding symptomatic patients for clearance from isolation, consider asking patient to **schedule** a virtual visit **follow-up no sooner than:**
 - 3 days after resolution of fever **AND** improved respiratory symptom
- For **asymptomatic patients** with a **known exposure**, patients should follow up no sooner than **14 days**

Follow-up Antibody testing can be performed but recommend no sooner than 7 days after onset of symptoms.

NOTE: Review the [COVID-19 14-day Symptom Monitoring Log with patient for either scenario above](#)

RECOMMENDATIONS FOR RELEASING COVID-19 PCR NEGATIVE PATIENTS FROM HOME ISOLATION - PCR PLUS ANTIBODY TESTING (4/24/2020)

Patients with **negative PCR diagnostic** test results should meet the following criteria prior to **release from home isolation**:

Asymptomatic patient with known exposure to a COVID-19 positive patient:

- **14 days** after exposure if patient never developed symptoms

Symptomatic patients:

- ≥ 3 days (72 hours) *since recovery* = resolution of fever and improved respiratory symptoms PLUS ≥ 7 days since symptom onset (to account for false negative results)

NETWORK UPDATE: In theory, a positive antibody test in the absence, or after resolution, of symptoms supports the decision to release a patient to work or back into the community as a low risk, non-infectious, recovered patient with some degree of immunity. Therefore, we recommended you consider adding an antibody test when making your clearance decisions.

POSITIVE PCR/NEGATIVE ANTIBODY TEST RESULTS

Despite a patient's antibody test results, patients who test positive for PCR should follow the same conservative, post-testing protocols outlined for patients with Positive PCR Testing.

POSITIVE PCR/POSITIVE ANTIBODY TEST RESULTS

Despite a patient's antibody test results, patients who test positive for PCR should follow the same conservative, post-testing protocols outlined for patients with Positive PCR Testing.

Following COVID-19 PCR testing, the PCP should closely monitor patients for worsening of symptoms. Recommended conservative approach to follow up:

- **Two-day, post testing follow-up**
 - **Check on patient symptoms**
 - Re-enforce **14-day tracker use**
 - Re-enforce **home isolation compliance**

- **Results** will likely be **pending**
- **Third or 4th-day, post testing follow-up**
 - **Discuss test results**
 - **Check** on patient **symptoms**
 - Re-enforce **14-day tracker use**
 - Re-enforce **home isolation compliance**
 - Re-enforce need to **call PCP with any worsening of symptoms**
- **Fourteen-day, post symptom onset follow-up**
 - For simplicity in guiding patients for clearance from isolation, consider asking patient to schedule a virtual visit follow-up no sooner than:
 - 3 days after resolution of fever **AND** Improved respiratory symptom

NOTE: If you haven't already, share the [COVID-19 14-Day Symptom Monitoring Log with your patient](#) so you can review their symptoms before or during their appointments.

RECOMMENDATIONS FOR RELEASING PCR CONFIRMED COVID-19 PATIENTS FROM HOME ISOLATION/RETURN TO WORK - PCR PLUS ANTIBODY TESTING (4/24/2020)

Many factors affect the **decision to discontinue home isolation**. Patients should remain under home isolation precautions until the risk of secondary transmission to others is thought to be low. The decision to discontinue home isolation precautions is **made on a case-by-case basis**, in consultation with healthcare providers under guidance from the state and local health departments. The **most recent CDC-based recommendations** are as follows:

Current Options (Last Updated 4/3/2020):

- **Non-Test based Strategy** (aka time-since-illness-onset and time-since-recovery strategy):
 - **≥ 3 days (72 hours)** *since recovery* = resolution of fever and improved respiratory symptoms
 - AND**
 - **≥ 7 days** *since symptoms* first appeared
- **Test-based strategy**
*The test-based recommendations have been simplified so that only **one swab** is needed at each sampling:*

- Resolution of fever
AND
- Improved respiratory symptoms
AND
- Negative results from ≥ 2 consecutive swabs collected ≥ 24 hours apart (total of two negative specimens)

NETWORK UPDATE: A full understanding of the science around antibody testing is pending. The above non-test based or test based strategies for release from quarantine are still recommended. In theory, the **addition** of a positive antibody test supports the decision to release a patient back to work or into the community as a low risk, non-infectious, recovered patient with some degree of immunity. Therefore, we recommended you add an antibody test with both the test-based strategy and non-test-based strategies.

ASYMPTOMATIC POSITIVE PCR TESTING PATIENTS

Patients with positive PCR COVID-19 testing who never develop symptoms may discontinue home isolation 7 days after their positive test.

NETWORK UPDATE: In theory, a positive antibody test in the absence of symptoms supports the decision to release a patient back into the community as a low risk, non-infectious, recovered patient with some degree of immunity. Therefore, we recommended you consider adding an antibody test when making your clearance decisions.

OPTIONS FOR WHEN REPEAT CLEARANCE TESTING IS POSITIVE

Two options currently exist to clear COVID-19 positive patients from home isolation if their repeat tests are positive. One option is to convert to a Non-Test based strategy:

- **Non-Test based Strategy** (aka time-since-illness-onset and time-since-recovery strategy):
 - ≥ 3 days (72 hours) *since recovery* = resolution of fever and improved respiratory symptoms
AND
 - ≥ 7 days *since symptoms* first appeared
- **A second option** is to perform serial testing at least 24 hours apart until the patient has:

- Negative results from ≥ 2 consecutive swabs collected ≥ 24 hours apart (total of two negative specimens)

NOTE: *This section will be updated when antibody testing become readily available.*