COVID-19 TESTING & THERAPIES
PATIENT FAQs

TESTING

GENERAL
What tests are available for COVID-19?
There are two main types of tests for COVID-19. Reverse transcriptase polymerase chain reaction (RT-PCR) directly detects active viral infection. Serology tests detect immune response (antibodies) to infection, which typically takes at least two to three weeks to develop.

Are UCSF researchers involved in COVID-19 studies that look at testing improvements?
In addition to providing COVID-19 diagnostic and serologic testing services, UCSF has initiated a number of new research studies. Teams are assessing the performance of commercially available serologic tests, as well as the performance and quality of available diagnostic PCR tests so that health systems and governments are aware which are the most effective testing platforms.

What is viral shedding?
Viral shedding occurs when a virus is detected in body fluids such as nasal secretions and saliva. Evidence suggests that the novel coronavirus is most contagious when symptoms are worse and viral shedding is high. However, it appears that some people can be contagious prior to developing symptoms, suggesting that viral shedding is occurring even early in the infection.

SEROLOGY TESTING
What is a serology or antibody test?
Serology blood tests are designed to identify who has previously been infected with COVID-19. They look for an immune response to the coronavirus in the form of a specific protein material, or antibodies, in your blood. It takes time for the body to produce antibodies, so antibodies may not be detected early on after infection. Not all patients may develop detectable antibodies, particularly patients who have weakened immune systems due to underlying diseases or certain medications.

If a person has antibodies to the coronavirus, what does that mean?
A positive test shows that you have antibodies that may have resulted from COVID-19 infection. It could also be a false positive test from a cross reaction with antibodies from a related coronavirus or other virus (there are multiple other common coronaviruses that cause mild upper respiratory infections). We currently don't know whether antibodies to the SARS-CoV-2 virus offer immunity against future infections and if so, for how long. Several other coronaviruses have limited or short-term immunity after an infection, but it is too early in this epidemic to understand whether or how antibodies will protect people who have had COVID-19. We will need more studies to determine if the presence of antibodies means a person won't get re-infected. Until those studies are done, decisions about returning individuals to work or school should not be based on antibody test results.

How soon after infection does someone start producing antibodies?
Antibodies can appear approximately one week after infection and typically peak four to six weeks after symptom begin. Most people will develop antibodies within two to three weeks after infection. Some patients, particularly those with immunocompromising conditions, may not produce a detectible antibody response.

How long after infection do antibodies remain in the body?
The length of time that antibodies remain in the body after infection is not well known for SARS-CoV-2. For most viruses, antibodies remain detectable for months or sometimes even years after infection.

How accurate are serology tests?
There continues to be significant variability in commercial serologic tests, but we hope to see more accurate tests come online soon. In the meantime, testing of asymptomatic individuals with low suspicion for prior infection should be approached with caution until we understand more about the potential for false positive and false negative results.

How are serology tests useful?
Serology tests for COVID-19 are mainly used for diagnostic testing of patients whose symptoms indicate a high suspicion of COVID-19, but who are seeking care more than a week after symptoms began and who do not test positive for COVID-19 RT-PCR test. The tests also are useful for people who want to donate convalescent serum and, once they are more reliable, can be used to determine how broadly the virus has spread in the community in the past.

If I have been infected with COVID-19 and have a positive antibody test, does this mean I am no longer infectious?
Not necessarily. Antibodies may become detectable before infectious virus is cleared by the body, so a positive antibody test does not mean you cannot spread the virus to other people.

What does a negative antibody test mean?
A negative test means you probably have not had a previous infection with COVID-19 that has since resolved. However, you could still have a current infection if antibodies have not formed yet (it takes 1 to 3 weeks to develop antibodies), or you could have had a previous infection but not developed an antibody response (particularly if you have a weak immune system from underlying medical conditions or medications).

What is convalescent serum?
Convalescent serum is the cell-free part of blood containing antibodies that is taken from patients who have recovered from a certain illness and then delivered to patients with the same illness to help their immune response. It is a treatment that has been used for many infections over the years, but its effectiveness still needs to be studied for patients with COVID-19.

When will serology tests be available for the general public?
SARS-CoV-2 serology tests are now available for UCSF patients with a provider order. Recommended uses for this test are described above. Results should be back within 24 hours from the time blood is drawn for the test.

Version 2
KRM/BB/Testing Team
5/1/20

THERAPIES

HYDROXYCHLOROQUINE AND REMDESIVIR
What is hydroxychloroquine?
Hydroxychloroquine is in a class of drugs that are primarily used to treat malaria, but also are used to treat discoid or systemic lupus erythematosus and rheumatoid arthritis in patients whose symptoms have not improved with other treatments.

Is hydroxychloroquine effective in treating patients with COVID-19?
We currently don't know. There have been a few small studies that have not answered key questions and have shown evidence of harm by using chloroquine and hydroxychloroquine in patients with COVID-19. This demonstrates the importance of not using these drugs off-label and instead testing them in clinical trial settings where we can monitor patients.

What is remdesivir?
Remdesivir is an investigational antiviral compound undergoing clinical trials in China, the United States, and the United Kingdom as a potential treatment for COVID-19, including at UCSF Health. It is not yet licensed or approved anywhere globally

Is remdesivir effective in treating patients with COVID-19?
Published studies to date have not demonstrated the benefit of using remdesivir for the treatment of COVID-19. However, a recent press release from the National Institutes of Allergy and Infectious Diseases reported improved clinical outcomes in an interim analysis of a large randomized control trial in patients taking remdesivir compared to those taking placebo. Publication of this study through a process of peer review is pending as are several other studies using remdesivir.

Is UCSF conducting clinical trials on these drugs?
UCSF is leading clinical trials of hydroxychloroquine and the antibiotic azithromycin, and of remdesivir.

VACCINES
Where do we stand in the development of a COVID-19 vaccine?
In response to the global COVID-19 pandemic, the global vaccine research and development effort has moved at an unprecedented speed. Based on the scale and speed at which vaccine development is proceeding, there is an indication that a vaccine could be available at some time in 2021 under emergency use protocols.