

## **Frequently Asked Questions: SARS-CoV-2 (COVID-19) serology**

### When should a doctor request SARS-CoV-2 serology?

Serology has utility for the diagnosis of **past** COVID-19 infection. Serology does not have a role for diagnosis during acute illness. Testing using serology before two weeks from the onset of symptoms can result in false negative results due to the time it takes to develop antibodies.

The Health Department of WA have provided recommended testing criteria for SARS-CoV-2 serology. For the latest information on testing criteria go to: [https://ww2.health.wa.gov.au/Articles/A\\_E/Coronavirus/COVID19-information-for-health-professionals](https://ww2.health.wa.gov.au/Articles/A_E/Coronavirus/COVID19-information-for-health-professionals)

### **SARS-CoV-2 Serology can be considered for a person who meets the following criteria:**

**At least** 2 weeks have passed since the onset of symptoms (fever (37.5°C) OR history of fever OR acute respiratory symptoms (sore throat/ cough).

**AND** the patient has one of the following risk factors:

1. Identified as a close contact of a confirmed or probable case;
2. International travel since 1/1/20;
3. Passengers or crew who have travelled on a cruise ship since 1/1/20;
4. Healthcare, aged or residential care workers, and staff with direct patient contact; and
5. People who have lived in or travelled through a geographically localised area with elevated risk of community transmission, as defined by public health authorities.

People who undergo serology testing do not require to self-isolate.

### What information should the requesting doctor provide on the pathology request form?

The doctor should provide the criteria to justify SARS-CoV-2 serologic testing as well as the date of onset of symptoms to enable accurate interpretation of results.

### Do I need to send my patient to a respiratory collection centre for COVID-19 serology testing?

You need to refer your patient to a respiratory collection centre or drive-through clinic if your patient has respiratory symptoms and/or is requiring collection of a respiratory sample for a PCR test. If you are requesting serology for a retrospective diagnosis, and your patient is currently well, then they can attend a normal collection centre. Please note that drive-through clinics are unable to collect blood samples.

### What antibodies are being tested by WDP?

WDP will be testing serum samples for IgG antibodies when SARS-CoV-2 (COVID-19) serology is requested. Currently SARS-CoV-2 IgM testing is not performed at WDP.

Any positive SARS-CoV-2 IgG antibody test will have second alternate antibody test performed to confirm the result.

### How sensitive and specific is the antibody testing to detect a past COVID-19 infection in my patient?

Studies to date have shown that >90% of patient that have been infected with SARS-CoV-2 will develop IgG antibodies by 10-14 days after symptom onset. Approximately 5-10% of individuals may not develop antibodies.

Evaluation studies performed by WDP indicate that the SARS-CoV-2 antibody test has a specificity of >99%.

### Does the presence of IgG indicate current infection?

A positive IgG result cannot differentiate between current and past infection.

How long will it take to receive the result of my patient's serology test?

The serology result should be available within 48-72 hours Monday to Friday.

How long do IgG antibodies stay positive in people who have been infected with SARS-CoV-2?

The research in this area is still quite limited, with relatively small numbers of patients having been tested by PCR and serial serology. The limited data that is available suggests that antibodies decline in 2-3 months.

Does detection of a SARS-CoV-2 IgG antibody mean my patient is immune to a reinfection with SARS-CoV-2?

At this point in time, it is unknown how protective IgG antibody is against becoming reinfected with SARS-CoV-2 virus.

What happens when SARS-CoV-2 IgG antibody is detected in my patient's sample?

As with the SARS-CoV2 PCR requests, all antibody requests are required by legislation to be notified to the WA Health Public Health Unit/department. WDP will notify the WA Public Health Unit of any positive serology results.

If the serology results are positive the patient will be contacted by WA Department of Health and provided further advice. People who undergo serology testing do not require to self-isolate.

The requesting doctor is responsible for informing the patient of negative serology results.

Do I need to call my local public health unit to request serology testing on my patient?

No, you can request serology testing on your patient if they meet the WA Department of Health testing criteria.

Is my patient still infectious if serology testing detects the presence of IgG?

The timing of antibody development will not be known from an isolated test, nor is antibody testing a test for the communicability of an infection. A seroconversion to IgG in an antibody test (the IgG is not detected on the first sample, to having an IgG detected on the convalescent sample) is consistent with a recent infection.

If I think my patient has been exposed to SARS-CoV-2, what test should I request to check that they haven't been infected?

If your patient is symptomatic then a COVID-19 PCR test should be requested.

If your patient is asymptomatic then there is no recommendation for routine testing, but public health guidelines may suggest PCR testing as part of enhanced surveillance.

**COST**

Bulk Billed subject to Medicare guidelines and criteria.

**FURTHER INFORMATION**

For further information please contact your Medical Liaison Officer.