

## **Covid-19 Serologic testing for Providers- Interim Guidance from MultiCare Health Services**

The newly available SARS-CoV2 antibody test available at MultiCare, developed by the UW and Abbott Labs, tests for IgG antibodies. It is a qualitative test. Much is still unknown about the significance of the presence of these antibodies. **Looking ahead to the possibility of more COVID-19 cases in the summer and fall, antibody testing may help us determine whether a prior infection provides immunity against future infections.**

### **SUMMARY**

It is our expert opinion that despite high demand for these tests, there are very limited uses for these tests outside of epidemiologic studies. This test should be ordered and interpreted with caution. Shared decision making is required to determine what the result means to each patient. Note that guidance on use of this and other serologic testing is anticipated to change as further studies are published.

#### **Facts and recommendations related to this test-**

- This test should only be ordered by an independent licensed practitioner with shared decision making with the patient being tested.
- Serology should be obtained at least 14 days after onset of a suspected infection, when most patients will have developed a response.
- The sensitivity of the assay in detecting IgG antibodies is near 100% in symptomatic Covid-19 infection whereas sensitivity in the setting of asymptomatic infections or patients without PCR documented SARS-CoV-2 infection is unknown.  
The specificity is thought to be 99.6-99.8% based on limited studies of banked serum collected prior to the COVID19 outbreak.

#### **Factors that should be considered when interpreting a POSITIVE IgG test:**

- There is not yet sufficient evidence demonstrating if a positive antibody test to SARS-CoV-2 correlates with immunity
- The presence of antibodies to SARS-CoV-2 does NOT prove lack of infectivity. Patients with positive serology still may have detectable RNA and may still be infectious. Therefore this test should NOT be used to discontinue quarantine.
- The duration of the antibody response to SARS-CoV-2 is unknown.
- It is unknown if some positive antibody tests to Sars-CoV-2 could be due to cross reactivity with other coronavirus strains (HKU1, NL63, OC43, 229E).

#### **Factors that should be considered when interpreting a NEGATIVE IgG test:**

- The absence of antibodies does NOT rule out active infection as antibodies generally develop 1 - 2 weeks after an acute infection.
- False negatives can occur if the test is taken less than 14 days after acute onset of disease.
- It is not clear if negative tests indicate lack of prior infection with SARS-Cov-2, especially in asymptomatic individuals as this group was not tested using the current generation of serologic testing.

The accuracy of this test is affected by the current community prevalence of the infection which is felt to be low in the US (this may decrease the test's positive predictive value).

### **REFERENCES**

### **Talking Points for Providers to Patients**

Recommendations for having shared decision-making discussions with patients related to SARS-CoV-2 serology discussions.

There has been significant interest as reported in the media and as experienced by our providers since the announcement by the UW. Some points to consider while having conversations with patients about this test.

- Use empathy when helping patients address their understandable concerns for their safety and the safety of their loved one, coworkers etc.
- Explain to the patient that positive antibody tests are not currently proven to be protective from subsequent infections. Further, a positive test also doesn't indicate that a person is not infectious.
- Negative tests also do not indicate lack of disease as antibodies take up to 14 days in symptomatic patients and an unknown period of time in asymptomatic patients with Covid-19.
- Therefore, most patients won't benefit from having this test at the present time.
- Future testing may add useful parameters such as quantitative titers and in conjunction with the results of ongoing studies, will better be able to help patients make informed decisions around their health.