Let's Talk Testing Frequently Asked Questions Answered by WMH Pathologist Sibyl Rickard, MD



(Honesdale, May 18, 2020)... In an effort to answer the many questions received about testing for COVID-19, Wayne Memorial Hospital asked its in-house pathologist, Sibyl Rickard, MD, director of Clinical and Anatomical Laboratory Services, to respond to some of the most frequently asked queries.

Q. What are the tests for COVID-19?

There are three tests, a molecular test, an antibody (serology) test and a new antigen test. A fourth test, using saliva, is not widely available. All are very different from one another.

- **Molecular Test** also called a PCR. Collection method: a nasal or oral swab. Detects COVID-19 viral RNA. It is 99% accurate, but still requires a prescription. Turnaround times for test results depend on lab performing them and the clinical situation; results can take under an hour to 48 hours.
- Antibody test also called a serology test. Method: blood draw. Detects antibodies, which are proteins the body creates to fight a specific infection. It does not test for the virus itself. If an antibody test is positive, it means you may have had COVID-19 *or a similar virus* at some point in time. Appropriately validated serology tests are designed to be very specific for the SARS CoV-2 virus, but the available tests have differing sensitivities and specificities, and there can be cross-reactivity with other viruses. They cannot be used to diagnosis acute infection because an antibody response will not develop for approximately 10 days. Some people may never develop an antibody response. You may also develop an antibody response, but still be releasing virus into the environment and able to infect others. In other words, the presence of an antibody response should not guide diagnosis or individual decision making at this time.
- Antigen test Method: nasal swab. Detects bits of protein found on or within the virus. Results in minutes. Highly specific BUT because antigen tests are not as sensitive as the diagnostic PCR, false negatives are very possible. A negative antigen test may call for a PCR test to confirm before any treatment is given or withheld.

Q. How do I figure out which test to get?

Your primary care provider should help you. Decisions should be based on symptoms, exposure, clinical situation, and access to tests. The PCR diagnostic test is very specific and the most sensitive. The antigen test is also a diagnostic test with excellent clinical specificity, but does not differentiate between SARS CoV and SARS CoV-2, and has a lower sensitivity.

Q. Why shouldn't I get an antibody test for diagnosis if I can't get a PCR test?

Antibody tests are more easily available but they don't necessarily tell you if you have had COVID-19. Antibody tests help the medical community understand how the immune response against SARS CoV-2 develops, how many people have been infected, and how to isolate it. It's really a test geared to places with a verified outbreak of COVID-19. In those locations, there's a high likelihood that the antibodies you have are indeed specific to COVID-19. With use and study we will gain information on antibody response to the virus and if that response lowers the risk of reinfection.

Q. There is a medical provider near me who is promising rapid results from a test right in their office. What questions should I ask to see if it's worth it?

The first question you should ask is what type of test is being offered. The next question you should ask is if they are certified under the federal government's Clinical Laboratory Improvement Amendments, or CLIA, to perform the test. Wayne Memorial's Lab is CLIA certified.

There are currently only four tests with emergency use authorizations from the FDA that can be performed outside of a laboratory setting.

There are currently NO serology tests that can be performed outside of the clinical laboratory setting.

Q. If I have had a positive diagnostic test for COVID-19, am I immune to the virus now?

All viruses are different and cause different adaptive immune responses. Some viruses cause immune responses that are protective for lifetime while others are protective for only six months or less. There are also some people who are unable to develop an immune response or don't develop detectable antibodies for many reasons. Serology testing with clinical follow-up and study will help to determine if these antibodies give protection, how much protection they give, and how long that protection will last.

Q. I heard the FDA approved at-home collection of saliva samples for COVID-19 testing? Is this test accurate?

Although the specimen can be collected at home, there are specific guidelines on collection, including a telehealth visit with a trained healthcare provider during the collection. Saliva tests offer the same molecular results as the PCR tests; in other words, if administered correctly it should be very accurate. However, it is still a new test. Wayne Memorial does not offer it at this time.

Dr. Sibyl Rickard

Dr. Rickard has been practicing medicine since 2005. A native of Honesdale, she went to the University of Scranton and then to Jefferson Medical College, where she earned her medical degree. Board-certified in both Pathology and Dermatopathology, Dr. Rickard's experience also includes a clinical assistant professorship in Pathology/Dermatopathology at the Geisinger Commonwealth Medical College in Scranton.

"The COVID-19 crisis presents a challenge for all medical professionals in that we still know so little about it," says Dr. Rickard. "However, we do have many decades of experience unraveling similar mysteries, and I am confident that one day we will have the proper treatment and vaccines to address COVID-19. Our first line of defense—and knowledge—begins in the lab with testing."