



All about the COVID-19 test

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We need a good quality specimen

As for all tests, the sensitivity and performance of the test is dependent on receipt of a good quality specimen. So, for the COVID-19 test a carefully collected throat then deep nasal swab (using the same swab) which is then placed into the liquid media is the usual specimen.

In patients with moderate or severe infections/pneumonia, a deep respiratory sample is more sensitive than an upper respiratory sample.

About the test

The COVID-19 PCR test is a molecular test that detects specific targets of RNA for the virus that causes COVID-19. These tests are exquisitely sensitive (down to at least 250 copies of virus/mL) and highly specific and most are fairly rapid, producing results within a few hours. The main concern is a false negative result, that is most likely due to a poor sample collection, or testing when asymptomatic, prior to infection. False positive tests would be very unusual, especially as all results are carefully checked to ensure the test/run has worked properly, before they are finalised.

It is important to understand that although the PCR tests are detecting viral RNA, it doesn't mean the virus is still viable, however viral culture, which would inform about viability is not routinely available, or practical. It should therefore be assumed that if viral RNA is detected, the patient may still be infectious. All positive COVID-19 PCR results are notified to DHHS by the laboratory and should also be notified by the referring doctor.

COVID serology tests

There has been a lot of publicity about COVID serology tests (IgG, IgM, IgA) some of which are Point of Care kits. The clinical utility of these has NOT yet been established. The hope is that they may inform us of people who have been infected and possibly may be immune, however, that too has not yet been proven. As they measure the immune response of the patient, which takes time, they are not useful for diagnosis of the acute infection. Until we have more information about the performance of these tests, including their specificity and sensitivity, caution should be taken in their use.

However, it is important to consider collecting serum from patients who are unsure of their exposure, so that in the future, they may be able to be tested should these tests be confirmed as reliable and useful.

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