

Antigen Testing for COVID-19

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Antigen tests are used for diagnosing an acute, active COVID-19 infection. The main advantage of Rapid Antigen Testing (RAT) is that results can be available as soon as 15 minutes after the sample is taken. They are also relatively cheap to perform.

Antigen tests require a higher quantity of the virus to be present in the sample than other COVID-19 testing methods. As a result, antigen testing tends to be less sensitive at detecting cases, especially in asymptomatic people or people who are early in their infectious period. Rapid antigen testing is used widely overseas for screening for COVID-19 in populations where the virus is circulating widely.

Antigen testing is unlikely to identify someone who does **not** have COVID-19 as a positive case (high specificity). However, because antigen tests require quite a high amount of virus in the sample, positive cases that are early in their infectious state often return a negative result – so antigen tests are not as sensitive as PCR tests.

Samples for antigen tests used internationally so far have been from a nasopharyngeal or nasal swab, as that is where there is a lot of virus. However, there are developments to look at alternative collection methods available over time, such as a saliva sample.

New Zealand's elimination strategy, which has successfully seen long periods without any virus in the community, has meant antigen testing has not been appropriate here to date – the most accurate test is needed to find every potential case.

Recently, the Ministry of Health has imported a rapid antigen test as part of preparing for the next phase of the country's response to COVID-19 as we achieve high vaccination rates. The specific test was selected based on scientific advice.

We are currently trialling the use of this rapid antigen testing as part of screening people arriving at Middlemore Hospital Emergency Department. In addition, we will be trialling the use of rapid antigen testing at the border as part of the work on 'Reconnecting New Zealand', to see what role it could play in our future border arrangements, including supporting self-isolation.