

In brief

Rapid Antigen Testing

18 August 2021

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- Rapid [antigen](#) tests are one of four main types of COVID-19 tests ¹
- The [other types](#) are nucleic acid amplification tests (PCR), rapid [molecular](#) tests (e.g. Xpert Xpress) and antibody tests ^{1,2}
- The [strengths of rapid antigen tests](#) ³ are:
 - Timeliness, with most taking between 15-30 minutes from test to result
 - Sample type used (usually a nasal swab or saliva) which are more acceptable to people
 - No requirement for specialist equipment (although some [use immunofluorescence](#)) ⁴
 - Relatively low [cost](#), with most costing \$5-\$20 per test ⁵
- Rapid antigen tests have [lower sensitivity and specificity](#) compared with gold standard PCR tests ¹
- Current Australian advice is that rapid antigen tests are not suitable for [diagnostic purposes](#) due to high rates of false positives and false negatives when used as a single one-off test ⁶
- However, rapid antigen tests have value as a [screening step](#) followed by confirmatory gold-standard PCR testing – particularly in outbreaks where there is [high local disease prevalence](#) (such as [currently in Sydney](#)) ⁷⁻⁹
- Issues with false positive and false negative test can be addressed by [repeat testing](#) ¹⁰
- Rapid tests can play an important role in expanding testing capacity for example in [emergency departments](#), schools and certain industries ¹¹
- Rapid testing is used differently across jurisdictions, for example a rapid, regular community testing program (lateral flow) for asymptomatic individuals was rolled out [in England](#) ¹²
- [Self-testing](#) is currently prohibited in Australia ¹³
- In Australia, the [Royal College of Pathologists of Australasia](#) remains concerned over the uncontrolled use of rapid antigen tests, however recognises that in localised outbreaks use of these tests for surveillance alongside mainstream testing may be appropriate ¹⁴
- The TGA recommends antigen tests should be [performed by health professionals](#) in accordance with the manufacturer's instructions. ² [Training is required](#) in the correct use of the device and interpretation of results.⁹
- Other options to increase testing capacity include [sample pooling](#).¹⁵

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