In brief

Rapid antigen testing

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- **Rapid antigen tests** are one of four main types of COVID-19 tests.¹
- The **other test 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 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 Therapeutics Good Administration (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

In brief documents are not an exhaustive list of publications but aim to provide an overview of what is already known about a specific topic. This brief has not been peer-reviewed and should not be a substitute for individual clinical judgement, nor is it an endorsed position of NSW Health.
References


