



# Coviself: Self Testing Kit

## Why in News

Recently, the [Indian Council of Medical Research \(ICMR\)](#) approved India's first **self-use Rapid Antigen Test (RAT)** for [Covid-19](#) named as **CoviSelf**.

- It is developed by **MyLab Discovery Solutions**, a Pune-based molecular company.
- **ICMR** is the **apex body in India** for the formulation, coordination and promotion of biomedical research, and is **one of the oldest medical research bodies in the world**.

## Key Points

- **About:**
  - It **uses a RAT** and gives **results within 15 minutes**. This test is **synced with a mobile app**, CoviSelf, which will **help directly feed the positive case's report on the ICMR portal**.
  - ICMR has advised this **test only for those who have symptoms or are high-risk contacts of positive patients** and need to conduct a test at home.
  - This test is **not advised for general screening in public places** of hawkers, show owners, or commuters.

## Rapid Antigen Test

- It is a **test on swabbed nasal samples that detects antigens** (foreign substances that induce an immune response in the body) that are found on or within the [SARS-CoV-2](#) virus.
- It is a **point-of-care test**, performed outside the conventional laboratory setting, and is used to quickly obtain a diagnostic result.
- Like [RT-PCR \(Reverse Transcription Polymerase Chain Reaction\)](#), the **RAT too seeks to detect the virus** rather than the [antibodies](#) produced by the body.
  - While the **mechanism is different**, the most significant **difference between the two is time**.
  - In an RT-PCR test, [RNA \(Ribonucleic acid\)](#) is extracted from the swab collected from the patient. It is then converted into [DNA \(Deoxyribonucleic acid\)](#), which is then amplified.
  - RT-PCR test takes a minimum of 2-5 hours whereas the maximum duration for interpreting a positive or negative test in RAT is 30 minutes.

- **Benefits of Self Testing:**

- **Cost Effective:**
  - Swab collection in this case is fairly simple and quick, and **reduces overall testing expenditure** and the **stress of booking appointments** in labs.
  - It is **cheaper than RT-PCR and a RAT** in the laboratory.
- **Reduced Risk of Transmission:**

- A person testing himself at home rather than visiting a hospital or lab, or calling a technician at home, **reduces the risk of transmission to others.**
- Reliable self-collection and self-testing will **reduce population movement, reduce Covid-19 exposure risk.**
- **Reduced Burden:**
  - Self-testing will **reduce the burden on laboratories that are currently working 24 hours** up to full capacity with manpower that is already saturated.
- **Mass Surveillance:**
  - Cheap rapid tests can **help in accomplishing the aim of mass surveillance** even if their sensitivity to capture accurate results are inferior to other tests.
- **Concerns:**
  - **Reliability:**
    - The reliability of results remains a major concern. The likelihood of the **sample not being collected correctly, or the swab stick getting contaminated, is high.**
  - **False Sense of Security:**
    - RAT comes with a **high chance of false negatives.** If a Covid-infected person is asymptomatic and tests negative, the test may give a **false sense of security.**
  - **Challenge to Response Measures:**
    - **Shifting the responsibility** of reporting test results **from health professionals and laboratories to individuals** could **lead to underreporting,** and **make response measures** such as contact tracing and quarantine of contacts even **more challenging.**

## Way Forward

- Self-tests **can be effective if the patient follows isolation norms,** feeds correct data and is able to interpret the results accurately.
- However while a RAT serves **as a quick mass surveillance tool, over-dependence on it for testing is not advisable.** It can supplement, not form, the bulk of testing.

[Source:IE](#)

PDF Refernece URL: <https://www.drishtias.com/printpdf/coviself-self-testing-kit>