



False Negative Tests: A Concern

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Why in News

Recently, there have been concerns about the manner in which some **Covid-19** patients have apparently relapsed due to **false negative** tests.

They have been tested positive only a few days after testing negative.

False Negative Test

- There is a **possibility that the virus does not show up in the first test** because patients have not rid themselves of the virus. However, on **testing again, the virus shows up** and the patients test positive.
- According to the research on the subject of false negative tests, **no lab test is 100% accurate.**
- Although the tests based on detection of genetic material are very sensitive, they can be negative sometimes. Therefore, scientists and researchers have to constantly deal with the **positive and negative predictive values.**

Possible Reasons

- The **swab is not obtained or processed correctly** or maybe **obtained too early.**
 - An initial swab sample may **not always collect enough genetic material** to provide an accurate test.
 - This problem may arise more often in patients who do not show many symptoms at the time of their test.
- The **test runs badly** due to some technical glitch.

- The virus may shed in different amounts and is probably not present in the nose while the swab is collected.
 - If the infection is in the lung, then a nose swab may not detect it.
 - According to a study on **SARS (Severe Acute Respiratory Syndrome)** respiratory swabs can be negative, but faeces may test positive in tests done at the same time which proves that the virus can exist in the body even if not in the nose at a given time.

Suggestions

- The public data on false negative rates in the clinical setting is very limited so **each negative test must be guarded and analysed.**
- A **negative test does not mean** the person does not have the disease so the test results need to be **considered in the context of patient characteristics and exposure.**
- Public health officials **should stick to principles of evidence-based reasoning** regarding diagnostic test results and false-negatives.
- False negative test results may be reassuring for the low-risk individuals but for higher-risk individuals, even those without symptoms, the risk of such results **requires additional protective measures against the spread of disease,** like extended self-isolation.
- To be **confirmed negative after being positive**, a patient normally **needs two negative swabs 24 hours apart** to be sure.

Source: IE