



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