

'CRP tests in home-isolation can alert doctors to worsening Covid'

Covid patients require a number of tests over the course of their treatment. This can be stressful for them. **Dr Arjun Dang**, CEO, Dr Dang's Lab, New Delhi, and **Dr Parveen Gulati**, director, Dr Gulati Imaging Institute, New Delhi, talk to **Malini Menon** about the lab tests and CT scan requirements for Covid patients

Which blood tests are required after a positive RT-PCR or rapid antigen test?

Rapid antigen tests are quite reliable when they give a positive result, but they often give false negatives. That's why RT-PCR is the most reliable Covid test.

Once you test positive by either method, the first step is to isolate and consult a physician. Further tests are recommended based on the severity of your symptoms, and may be done multiple times over the course of treatment.

For mild symptoms, you'll need complete blood count (CBC) and C-reactive protein (CRP) tests to establish a baseline for the physician to monitor changes over time. CRP is a protein made by the liver. CRP levels rise with inflammation in the body.

For moderate to severe symptoms, IL 6, Ferritin, LDH and D-Dimer are often prescribed along with CBC and CRP.

A higher NLR (neutrophil lymphocyte ratio) is associated with more severe disease. A value above 4 is a predictor of ICU admission.

Why are doctors recommending CRP tests even for patients staying in home-isolation?

CRP levels change significantly in severe Covid infection and are strongly correlated with worsening Covid symptoms and inflammation. Regular CRP tests can alert doctors about the progression to moderate or severe disease among patients in home-isolation.

How useful are blood inflammatory marker tests?

Severe Covid-19 is associated with higher levels of inflammatory markers, so tracking markers like CRP, ESR, ferritin, LDH and procalcitonin helps in tracking the disease's progression, and setting treatment protocols.

The over-production of inflammatory cytokines such as IL6 and 'tumour necrosis factor alpha' in Covid can cause a 'cytokine storm' that may lead to lung damage, among other complications.

Studies have revealed that IL6 and D-Dimer are closely related, and their combined detection is important for the early prediction of the severity of infection.

When is a CT scan required?

Dr Parveen Gulati, radiologist, says CT scan is not needed for every suspected or RT-PCR-positive patient. It is advised in the following situations

- > Patients have Covid symptoms but their RT-PCR test is negative due to mutant variant, technical errors, or low viral load. If a CT scan is needed in such cases, it should be done between the fifth and seventh days
- > In moderate to severe symptomatic patients with breathlessness/ falling oxygen saturation, a CT scan can assess disease severity for quick triage. Along with the clinical and lab profiles, the CT severity score is helpful for managing the patient
- > CT scan helps to diagnose or exclude conditions like bacterial infections and cardiac failure that mimic Covid-19
- > It's done in mildly symptomatic cases only if RT-PCR is not available and delay in diagnosis will make a difference to management of the patient
- > It may be done in some emergencies. For example when a patient has to undergo emergency surgery and RT-PCR or rapid testing is not available
- > CT scan is not needed after full recovery unless your clinician advises
- > In asymptomatic patients, there is no need for a CT scan just to exclude Covid-19

Who should take a Covid test?

You will need a Covid test if you have a cough, fever or other Covid symptoms. You should also get tested if you have been in contact with a confirmed Covid case but have no symptoms yourself

WITH SYMPTOMS

- > Take RT-PCR or rapid antigen test 1-2 days after symptoms begin
- > If RT-PCR test is negative but symptoms persist, repeat after 1-2 days
- > If rapid antigen test is negative, take RT-PCR test immediately

WITHOUT SYMPTOMS

- > Take RT-PCR test after isolating for 5-7 days

COVID GUIDE



TOI, in association with Unicef, has put together a panel of experts to answer questions about Covid-19 and vaccination. Scan the QR code or visit bit.ly/3gKqS6h to ask your question



When should you get a Covid antibody test done?

'Covid antibody test' commonly refers to the immunoglobulin G (IgG) test. IgG antibodies usually appear 14-21 days after vaccination or the onset of Covid symptoms. So, the test is done at least two weeks after infection or vaccination.

It is still not known whether antibodies are long-lasting or they confer immunity against reinfection. What is recommended, therefore, is a quantitative IgG test that carries a value rather than just reporting a negative or positive result.

Covid IgM is a less common test. IgM antibodies appear on day 7 of infection and can last up to 28 days. Essentially, a positive Covid IgM test indicates a recent infection.

(Answers have been edited for brevity and clarity)