

## Serology in Diagnosis and control of Covid 19 infection

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### Abstract

Covid 19 infection is usually diagnosed by RT PCR on respiratory samples or Rapid Antigen test. RT PCR has emerged as the gold standard diagnostic test while it is highly specific and sensitive; it is slow and technically demanding. Results take hours to come and so Rapid Antigen Test which gives results within 30 minutes has become the most frequently used test's.

Covid 19 infection can also be detected indirectly by measuring the host immune response to SARS CoV2 infection. Serological diagnosis is especially useful for patients who are asymptomatic or display only mild illness or those who present late in the course of illness. Serological tests are also important to understand the extend of spread of infection in the community and to identify persons who have recovered from Covid 19 infection and wish to donate convalescent plasma for therapy.

The most immunogenic antigen in SARS CoV 2 is the nucleocapsid antigen but it is antibodies to the spike protein that are likely to be protective (neutralising) in nature. The strategy for using serology is to use a screening test for presence of pan antibodies (total) to nucleocapsid antigen using either ELISA or CLIA and if positive, to test for presence of antispike antibodies for protection. Serological tests are good supplementary test for helping identify persons who might have had Covid 19 infection but were RT PCR and / or Rapid Antigen test negative. They could also find a place in pre-operative screening.

Ideally these tests should be carried out two to three weeks after exposure and even when both tests are positive, protected person should continue to practice social distancing and wear mask when in public.



### Biography:

Dr.Ashok Rattan has 12 years teaching experience at JN Medical College, AMU, Aligarh, All India Institute Clinical Microbiologist and administrator experienced in PK/PD of antibiotics, Running of Quality systems in Drug Discovery, Diagnostic Laboratory for World Health organization in the Caribbean, CAP and NABL accredited Lab in India.

### Speaker Publications:

1. "How to Treat Sepsis in the Background of Resistance?: Role of Pharmacodynamics / Pharmacokinetics in Treating Sepsis"
- 2 "Triage for Severe Dengue Using Early Severe Dengue Identifier"
3. "Roadmap for the Eradication of Multidrug Resistant Tuberculosis"
4. "Sexually Transmitted Infections in Males"
5. "Convergence of Minds: For Better Patient Outcome in Intensive Care Unit Infections"

[3<sup>rd</sup> International Conference on Clinical Microbiology, Virology and Infectious Diseases](#) Webinar- June 12-13, 2020

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