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ICMR advises States to conduct sero-survey

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The sero-survey would be conducted using an IgG ELISA kit

There is continuous demand for various types of diagnostic tests by countries all across the globe. Real-time i.e. RT-PCR test is considered gold standard frontline test for clinical diagnosis of SARS-CoV-2, causing COVID19. The test is useful only when performed in the acute stage of infection (< 7 days). For several viral infections, antibody tests are useful for disease detection after 5–7 days of illness. Understanding related to antibody tests for COVID19 is evolving and several tests are being developed globally.

IgG antibodies generally start appearing after two weeks of onset of infection, once the individual has recovered after infection and last for several months. Therefore, the IgG test is not useful for detecting acute infection but indicates episode of SARS-CoV-2 infection in the past. However, detection of IgG antibodies is useful in the following situations:

-Sero-surveys help to understand the proportion of population exposed to SARS-CoV-2 infection including asymptomatic individuals. Depending upon the level of sero-prevalence of infection, appropriate public health interventions can be planned and implemented for prevention and control of the disease. Periodic sero-surveys are useful to guide the policy makers.

-Survey in high risk or vulnerable populations (health care workers, frontline workers, immune-compromised individuals, individuals in containment zones, etc.) to know who has been infected in the past and has now recovered.

The sero-survey would be conducted using an IgG ELISA kit. Scientists at ICMR-National Institute of Virology, Pune have developed and validated an indigenous IgG ELISA test for antibody detection for SARS-CoV-2. The test has undergone intense validation in three stages and has been found to have high sensitivity and specificity.

To fast track production and increase availability of the IgG ELISA test, ICMR has transferred this technology to many pharma companies viz. Zydus Cadila, J Mitra & Company, Meril Diagnostics, Voxtur Bio, Trivitron Healthcare, Karwah Enterprises, Avecon Healthcare, etc.

The technology has been transferred to various entities without exclusivity clause and therefore can be further shared with others as per demand and capability. IgG ELISA tests from other USFDA/ CE-IVD/ indigenous sources such as Abott, Roche etc. are also available.