DEPARTMENT OF LABORATORY SERVICES

THE MISSION HOSPITAL KANPUR

Patient Name	Divyansh Masiwal	**Bill No**	OPCA321/159428
Source	OPD	**Sample Date**	28/12/2021 5:13PM
UHID	538538	**Receiving Date**	28/12/2021 6:15PM
Age/Gender	21 years/Male	**Report Date**	28/12/2021 9:32PM
Bed No/Ward	OPD	**Report Status**	Final
Referred By	Dr. SELF	**Lab No**	392115399
		ManualDept No.	SRF
			ID: 1970400404105

Investigation Name	Result	Units	Bio. Ref.Interval

MOLECULAR DIAGNOSTICS

SARS-CoV2 (COVID19) QUALITATIVE REAL TIME PCR (TRUNAT)

SPECIMEN	NASOPHARYNGEAL & OROPHARYNGEAL SWABS
RESULT	Negative

Dr. PALASH DAS
DPH,MD(MICROBIOLOGY)
ASSOCIATE CONSULTANT

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SARS COVID-19 QUALITATIVE REAL TIME PCR is a chip-based Real Time duplex Reverse Transcription Polymerase Chain Reaction (RT PCR) test for the detection of SARS CoV-2 RNA in human oropharyngeal and nasopharyngeal swab specimen in TRUNAT platform. The test detects the E and Orf1a genes of the virus. Optimal performance of this test requires appropriate specimen collection, handling, storage and transport to the test site. Though very rare, mutations within the highly conserved regions of the target genome where the assay primers and/or probe bind may result in the under-quantitation of or a failure to detect the presence of the concerned pathogen. A specimen for which the assay reports "Not Detected" cannot be concluded to be negative for the concerned pathogen. As with any diagnostic test, results from the assay should be interpreted in the context of other clinical and laboratory findings. Limit of detection of Orf1a and E gene was estimated to be 480 and 487 genome copies/ml respectively. Invalid samples have to be repeated with fresh specimen from the sample preparation stage.

ICMR Advisory on Interpretation of Ct Values

-Ct values differ from one kit to the other. Comparability of Ct values among different kits is a challenge as labs are using a mixed basket of kits now with different Ct cut-offs and different gene targets.
- Ct values also depend on how the sample has been collected, type of specimen, transport temperature, technical competence of the person performing the test, calibration of equipment and pipettes and analytical skills of the interpreters amongst others.
- Severity of COVID-19 disease largely depends on host factors besides the viral load. Some patients with low viral load may land up in very severe disease due to triggering of the immunological responses. Hence, again high Ct value may give a false sense of security.
- Moreover, the RT-PCR test presently being conducted is qualitative in nature. Ct values may give a rough estimate of viral load. However, more specialized standards are required for quantitative assays which are currently unavailable for SARS-CoV-2.

In view of the above, it is not recommended to rely on numerical Ct values for determining infectiousness of COVID-19 patients and deciding patient management protocols.

***ICMR Registration number for Covid-19 is TMHDMCWB.**

----------**End Of Report**----------

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