



Patient's Details			
Name	: IZHAR BIN ISMAIL	Gender	: MALE
NRIC/PP.No	: 920128045235	Race	: Malay
Sample's Details			
Sample	: NPS and OPS	Date of Receipt	: 21/06/2021
Date of Sampling	: 21/06/2021 04:25pm	Date of Report	: 22/06/2021 10:29am
Clinic/Hospital	: Megaklinik Zahran	Lab Sample ID	: 00141298

### SARS CoV-2 (COVID19) Real-Time RT-PCR Test

Findings	Comment
E gene and RdRp gene of SARS-COV-2 not detected; Internal control detected	<b>NOT DETECTED (CT Value: Not detected)</b>

#### INTERPRETATION

The positive result indicates that the sample is above the limit of detection and they must get medical attention immediately. The negative result it indicates that the sample is below the detection limit which indicates that the person is healthy. However this should not be considered as the sole basis for treatment or patient management decisions. There are numbers of other factors which can lead to negative results on an infected person such as poor quality of the specimen, containing little patient material; specimen collected late or very early in the infection; specimen not handled and shipped appropriately; technical reasons like virus mutation or KR inhibition. When diagnostic testing is negative, the possibility of a false negative result should be considered in the context of a patient's recent exposures and the presence of clinical signs and symptoms consistent with COVID-19. The possibility of a false negative result should especially be considered if the patient's recent exposures or clinical presentation indicate that COVID-19 is likely, and diagnostic tests for other causes of illness (e.g., other respiratory illness) are negative. It is advisable to repeat the test. And if only upper respiratory samples collected initially now it is advisable to collect lower respiratory tract if possible.

#### METHODOLOGY

This is a qualitative 1 step multiplex RT-PCR assay to detect the presence of SARS-COV-2 viral RNA (a virus that cause COVID-19 disease) in nasopharyngeal and oropharyngeal swabs. Extracted RNA is subjected to 1-step RT\_PCR, with primers and probes targeting the E gene and RdRp gene of SARS-COV-2. Coamplification of an Internal Control is used to confirm successful RT-PCR. Appropriate positive and negative controls are included in every run. Any sample with a Crossing Threshold(CT) value of 40 for both E gene and RdRp gene, and Internal Control Ct 40 for the E gene and RdRp gene & Internal control Ct is considered INCONCLUSIVE with a recommendation for repeat sampling. When Internal Control is not detected, it indicates suboptimal sample or RNA extraction or presence of PCR inhibitors; hence a new sample should be tested.

#### Consultant Virologist:

Prof Dr. Shamala Devi Sakaran [PhD (UM) Immunovirology, FRCPATH (UK)]