

Target testing and specificity of nucleic acid based diagnostics for COVID-19

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Abstract

The objective of study is to provide an indication on features of diagnostic testing of SARS-CoV-2 by RT-PCR, including parameters of sensitivity, specificity, positive and negative likelihood ratios. Coronavirus Disease is the fifth international emergency after 1918, Spanish flu pandemic, triggered by Severe Acute Respiratory Syndrome Coronavirus2 (SARS-CoV2). On 30 January the WHO acknowledged COVID-19 to be a global health disaster of international importance and a pandemic on 11 March 2020. In vitro analysis of the data shows that for SARS-CoV-2 the RT-PCR test is highly specific, as it is not counter react with nucleic acid of other viruses. Oral pharyngeal and nasopharyngeal swabs were collected into a 3 ml viral transport media (VTM) and transported to Laboratory. Extraction of the viral RNA was done by Qiasymphony DSP Virus/ Pathogen mini kit (Qiagen GmbH, Germany). For amplification process of RT-PCR qualitative detection of SARS-CoV-2 RNA utilizing with SYSTAAQ 2019-Novel Coronavirus (COVID-19) Real time PCR kit using a BIORAD-CFX 96. Our findings contribute to the evolving understanding of the sophisticated interaction between this emerging SARS-CoV-2 virus and nucleic acid based target testing of COVID-19.

Biography

Ghazala Rubi is working in Molecular Genetics Research Lab. this is the Central Research Lab of Post Graduate Medical Institute, Lahore General Hospital. This Lab caters all facilities of Molecular & Genetics to all Researchers of Post Graduate Medical Institute and post graduates research Projects.

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