

DETECTION OF SARS-COV-2 AND OTHER SPECIFIC PATOGENS FROM RESPIRATORY ROUTES IN SAMPLES COLLECTED FROM PATIENTS TREATED AT THE MILITARY INSTITUTE OF MEDICINE NATIONAL RESEARCH INSTITUTE USING MOLECULAR BIOLOGY METHODS.

Agnieszka Woźniak-Kosek ¹ , Jarosław Kosek ²

¹Department of Laboratory Diagnostics, Military Institute of Medicine- National Resarch Institute , Warsaw . Szaserow 128 Str. ; 04-141 Warsaw/Poland, awozniak-kosek@wim.mil.pl

² Department of Otolaryngology with Division of Cranio-Maxillo-Facial Surgery, Military Institute of Medicine- National Resarch Institute , Warsaw . Szaserow 128 Str. ; 04-141 Warsaw/Poland, jkosek@wim.mil.pl

The BioFire Respiratory 2.1 plus panel is a multiplex test for the detection of nucleic acids of 23 targets of many viruses and bacteria in nasopharyngeal swabs. It is a one-step molecular system for patients who are also suspected of having COVID-19 infection. The following types and subtypes of pathogens can be identified with this test: Adenovirus, Coronavirus 229E, Coronavirus HKU1, Coronavirus NL63, Coronavirus OC43, Middle East Respiratory Syndrome Coronavirus (MERS-CoV), Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Human Metapneumovirus, Human Rhinovirus/Enterovirus, Influenza A (subtype H1, H3, H1-2009), Influenza B, Parainfluenza Virus 1,2,3,4; RSV, Bordetella parapertusis , Bordetella pertussis, Chlamydia pneumoniae, Mycoplasma pneumoniae. Due to the nature of the work in the MIM Hospital Emergency Department during the pandemic, material for examination by this matode was collected only from patients in severe suffocating condition. Between January 2021 and October 2022, 388 tests were performed. In 22.4% SARS-CoV-2 was detected, in 4.9% an infection other than SARS-CoV-2 was detected in 4 cases co-infection with SARS-CoV-2 occurred. The study shows that patients presenting to the MIM Hospital Emergency Department were infected not only with SARS-CoV-2 but also with other viruses having affinity to the epithelium of the upper respiratory tract