Respiratory Pathogen Panel Report

Patient Name:
Roper, Myron R.

DOB:
05/27/1956 (66)

Gender:
Male

ICD Code(s):
U07.1

Date Collected:
12/01/2022

Date Received:
12/05/2022

Date Reported:
12/05/2022

Collection Time:
9:22AM

Status:
Final

Accession Number:
R22-068336

Requesting Facility:
Keith Family Medicine

Requesting Physician:
Dr. Keith, Nabil

PURE DIAGNOSTIC

CLIA#: 44D2111056

Lab Director: Dr. Koch, Michael

Summary

Positive for: Human Respiratory Syncytial Virus B (RSVB), Staphylococcus aureus

Results

Viral Target	Results
ADENOVIRUS 1/2	NOT DETECTED
ADENOVIRUS 2/2	NOT DETECTED
HUMAN BOCAVIRUS	NOT DETECTED
HUMAN CORONAVIRUS 229E	NOT DETECTED
HUMAN CORONAVIRUS HKU1	NOT DETECTED
HUMAN CORONAVIRUS NL63	NOT DETECTED
HUMAN CORONAVIRUS OC43	NOT DETECTED
HUMAN ENTEROVIRUS (PAN ASSAY)	NOT DETECTED
HUMAN ENTEROVIRUS D68	NOT DETECTED
HUMAN HERPESVIRUS 4 (HHV4 – EPSTEIN-BARR VIRUS)	NOT DETECTED
HUMAN HERPESVIRUS 5 (HHV5 – CYTOMEGALOVIRUS)	NOT DETECTED
HUMAN HERPESVIRUS 6 (HHV6)	NOT DETECTED
HUMAN METAPNEUMOVIRUS (HMPV)	NOT DETECTED
HUMAN PARAINFLUENZA VIRUS 1	NOT DETECTED
HUMAN PARAINFLUENZA VIRUS 2	NOT DETECTED
HUMAN PARAINFLUENZA VIRUS 3	NOT DETECTED
HUMAN PARAINFLUENZA VIRUS 4	NOT DETECTED
HUMAN RESPIRATORY SYNCYTIAL VIRUS A (RSVA)	NOT DETECTED
HUMAN RESPIRATORY SYNCYTIAL VIRUS B (RSVB)	**DETECTED**
HUMAN RHINOVIRUS 1/2	NOT DETECTED
HUMAN RHINOVIRUS 2/2	NOT DETECTED
INFLUENZA A	NOT DETECTED
INFLUENZA A/H1-2009	NOT DETECTED
INFLUENZA A/H3	NOT DETECTED
INFLUENZA B	NOT DETECTED

Bacterial Target	Results
BORDETELLA BRONCHISEPTICA / PARAPERTUSSIS / PERTUSSIS	NOT DETECTED
BORDETELLA PERTUSSIS	NOT DETECTED
CHLAMYDOPHILA PNEUMONIAE	NOT DETECTED
HAEMOPHILUS INFLUENZAE	NOT DETECTED
MYCOPLASMA PNEUMONIAE	NOT DETECTED
STAPHYLOCOCCUS AUREUS	**DETECTED**
STREPTOCOCCUS PNEUMONIAE	NOT DETECTED

Final Report Electronically signed by Dr. Hassounah, Fadwa on 12/05/2022 at 01:52 PM

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Interpretive Comments on Test

Suggest treatment with antiviral drugs. There are three FDA-approved influenza antiviral drugs recommended by CDC. The brand names for these are Tamiflu® (generic name oseltamivir), Relenza® (generic name zanamivir), and Rapivab® (generic name peramivir), Tamiflu® is available as a pill or liquid, and Relenza® is a powder that is inhaled (Relenza® is not for people with breathing problems like asthma or COPD, for example.) Rapivab® is administered intravenously by a health care provider. To treat flu, Tamiflu® and Relenza® are usually taken for 5day, although people hospitalized with the flu may need the medicine for longer than 5 days, Rapivab® is given intravenously for 15 minutes to 30 minutes.
For Streptococcus pyogenes (Group A); use first line antibiotics; penicillin. If resistance-erythromycin, azithromycin cephalosporin, clindamycin.

Intended Use

The detection and identification of specific nucleic acids from individuals exhibiting signs and symptoms of respiratory infection aids in the diagnosis of respiratory viral and/or bacterial infections, if used in conjunction with other clinical and epidemiological information. The RPP test is a LDT test and is not FDA approved. The RPP test is a qualitative nucleic acid multiplex diagnostic test intended for use on an Applied Biosystems™ QuantStudio™ 12K system for One-Step RT-qPCR. This assay can simultaneously detect and identify nucleic acids from multiple respiratory pathogens present from nasopharyngeal swabs (NPS), obtained from individuals exhibiting signs and symptoms of respiratory infections. The following bacteria and viruses/subtypes are identified using the RPP test: Influenza A (Influenza A H1, Influenza A H3, Influenza A 2009 H1N1), Influenza B, Respiratory Syncytial Virus (RSV) (subtypes A and B), Parainfluenza Virus (PIV) (subtypes 1, 2, and 3), Human Metapneumovirus (hMPV), Human Rhinovirus (HRV), Adenovirus, Coronavirus, (strains NL63, OC43, HKU-1, and 229E), Chlamydia pneumoniae, Mycoplasma pneumoniae, Bordetella holmesii, Bordetella pertussis, Legionella pneumophila, Moraxella catarrhalis, Streptococcus pneumoniae, Streptococcus pyogenes (group A).

Methodology

The Purified RNA/DNA is isolated from the nasopharyngeal patient specimen and loaded onto a Vaginal Tract Microbiota TaqMan® Open Arrays. These Open arrays can detect and identify a broad range of respiratory pathogens, simultaneously, within a sample extract and allows for 24 to 48 samples depending on the number of targets to be amplified. Each sub-array is made of 64 through holes which contain the primer sets for amplification of the specific target. During amplification, sequence specific oligonucleotides probes (dually labelled with a fluorophore and quencher) are allowed to hybridize to a specific DNA template. The 5'-3' exonuclease activity of DBA polymerase during elongation cleaves the fluorophore from being quenched on the oligonucleotide probe, causing the fluorophore to be excited, emitting fluorescence. The accumulation of fluorescence for each sample, in each well of the array, is measure by the instrument software during each cycle of amplification, directly corresponding to amplification of target sequence. The Applied Biosystem™ QuantStudio™ 12K system software provides a quality scores and confidence values for each assay in each well, for each sample.

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Limitations

Negative results do not preclude respiratory viral infection and should not be used as a sole basis for diagnosis, treatment, or other patient management decisions. Positive results do not rule out bacterial infections, or co-infection with other viruses. The agent detected may not be the definite cause of disease. The use of additional laboratory testing (e.g., bacterial, and viral culture, immunofluorescence, and radiography) and clinical presentation must be taken into consideration in the final diagnosis of respiratory viral infection.

Performance characteristics for Influenza A were established during the 2010/2011 influenza season when Influenza A 2009 H1N1 and H3N2 were the predominant Influenza A viruses in circulation. When other Influenza A viruses emerge, performance characteristics may vary.

PURE DIAGNOSTIC 800-303-1146 CLIA 44D2111056 STATE OF GEORGIA