



LAB INFORMATION	PATIENT INFORMATION	SPECIMEN INFORMATION
Name: Precision Health Solutions Address: 9675 4th St N St Petersburg, FL 33716 Phone: 727-235-0886 Fax: 833-288-9397 Medical Director: Fatemeh Mousavi, MD CLIA: 10D2181177	Patient: Mickey Mouse DOB: 04/03/2016 Age: 7 Years Gender: Male Patient Address: 123 Hola City: Celebration State: AL Zipcode: 34736	Acc #: D232780002 Facility: SQA/TruemdIT test facility Provider: Abdul Hanan Collection Date: 10/04/2023 19:45 P.M Received in Lab: 10/04/2023 Resulted Date: 11/21/2023 12:25 P.M Specimen Type: Nasopharyngeal

Respiratory Viral and Bacterial Panel

Result Summary			
Organism(s)	Patient Result	Qualitative	Reference Range
RSV	Detected	Moderate	Not Detected
Moraxella catarrhalis	Detected	Low	Not Detected
Staphylococcus aureus	Detected	High	Not Detected

Resistance Gene Marker	Patient Result	Drug Classes	Contraindicated Medications
mecA: PBP2a family beta-lactam-resistant peptidoglycan transpeptidase mecA	Detected	Staphylococcus aureus	Amoxicillin/Clavulanate, Ampicillin/Sulbactam, Dicloxacillin, Nafcillin, Penicillin G Benzathine, Piperacillin/Tazobactam

Lab Comment:

Limitations

Negative results do not preclude a Respiratory Viral and Bacterial Panel infection and should not be used as the sole basis for diagnosis, treatment or other patient management decisions. Positive results do not rule out infection, or co-infection with other pathogens not on our panel. 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 a Respiratory Viral and Bacterial Panel. Detection of a marker of antibiotic resistance does not preclude other antibiotic resistance mechanisms not tested for in the panel. Positive detection of an antibiotic resistance marker only indicates that marker is present in the flora in the sample tested and may not indicate potential for use in Respiratory Viral and Bacterial Panel.



The following organisms and resistance genes were tested using this Respiratory Viral and Bacterial Panel panel test and are **NOT DETECTED**

Organism(s)	Patient Result	Reference Range
Gram Positive Bacteria		
Streptococcus pyogenes	Not Detected	Not Detected
Streptococcus pneumoniae	Not Detected	Not Detected
Gram Negative Bacteria		
Bordetella parapertussis	Not Detected	Not Detected
Bordetella pertussis	Not Detected	Not Detected
Chlamydia pneumoniae	Not Detected	Not Detected
Klebsiella pneumoniae	Not Detected	Not Detected
Haemophilus influenzae	Not Detected	Not Detected
Legionella spp.	Not Detected	Not Detected
Gram Variable Bacteria		
Mycoplasma pneumoniae	Not Detected	Not Detected
Virus		
Coronavirus 229E	Not Detected	Not Detected
Coronavirus HKU1	Not Detected	Not Detected
Coronavirus NL63	Not Detected	Not Detected
Coronavirus OC43	Not Detected	Not Detected
Human gammaherpesvirus (Epstein-Barr, Mono)	Not Detected	Not Detected
Adenovirus	Not Detected	Not Detected
Parainfluenza 1	Not Detected	Not Detected
Parainfluenza 2	Not Detected	Not Detected
Parainfluenza 3	Not Detected	Not Detected
Parainfluenza 4	Not Detected	Not Detected
Rhinovirus	Not Detected	Not Detected
Influenza A	Not Detected	Not Detected
Influenza A H1N1	Not Detected	Not Detected
Influenza B	Not Detected	Not Detected
Metapneumonia virus	Not Detected	Not Detected
Enterovirus EV68	Not Detected	Not Detected
Parasite		
Resistance Genes		
erm(A) and erm(B): 23S rRNA (adenine(2058)-N(6))-methyltransferase ErmA and ErmB	Not Detected	Not Detected
blaKPC: carbapenem-hydrolyzing class A beta-lactamase KPC (blaKPC)	Not Detected	Not Detected
blaGES: class A beta-lactamase GES(blaGES)	Not Detected	Not Detected
blaOXA OXA-48: OXA-48 family class D beta-lactamase OXA (blaOXA)	Not Detected	Not Detected
qnrA and qnrS: quinolone resistance pentapeptide repeat protein QnrA2 and quinolone resistance pentapeptide repeat protein QnrS9	Not Detected	Not Detected
VIM: B1 Beta lactamase VIM	Not Detected	Not Detected
vanA and vanB: D-alanine--(R)-lactate ligase VanA and VanB	Not Detected	Not Detected



Methodology and Intended Use

Real-Time PCR was performed on genomic DNA extractions using the King Fisher and analyzed on a QuantStudio 7 and 12 Platform. Data was obtained for each assay to detect species specific sequences within a sample. During amplification, sequence specific oligonucleotide probes (dualy labeled with a fluorophore and quencher) hybridize to a specific DNA template. The 5'-3' exonuclease activity of DNA 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 is measured by the instrument software during each cycle of amplification, directly corresponding to amplification of target sequence. The Applied Biosystems™ QuantStudio 7 and 12 software analyzes the data generated, producing quality scores and confidence values for each assay in each well, for each sample. The Applied Biosystems™ QuantStudio 7 and 12 software provides a qualitative and quantitative result, the presence or absence of the pathogens or drug resistance markers contained in the panel, along with the internal controls, based upon whether the amplification is above or below the threshold of detection, in conjunction with the quality and confidence values. This test aids in the treatment of Respiratory infections and should be used in conjunction with other clinical and epidemiological information. This test is a Laboratory Derived (LDT) qualitative nucleic acid multiplex diagnostic test intended for use on an Applied Biosystems™ QuantStudio 7 and 12 Real-Time PCR System for the simultaneous detection and identification of multiple pathogen nucleic acids in Respiratory samples obtained from individuals



Treatment Considerations

The following antibiotic report is based on FDA drug labels and standard practice. All treatment decisions are the responsibility of the ordering physician and should be made in conjunction with a physical assessment including the off-label prescription of antibiotics.

Medications for Oral (PO) Administration

Organism Name	Medication
Moraxella catarrhalis	Azithromycin
	Cefdinir
	Cefpodoxime
	Cefuroxime
	Cephalexin
	Moxifloxacin
	Ciprofloxacin
Staphylococcus aureus	Azithromycin
	Trimethoprim/Sulfamethoxazole
	Cefdinir
	Cefpodoxime
	Clindamycin
	Cefuroxime
	Cephalexin
	Linezolid
	Minocycline
	Moxifloxacin
	Ciprofloxacin

Medications for Intravenous (IV) Administration

Organism Name	Medication
Moraxella catarrhalis	Azithromycin
	Ceftriaxone
	Cefuroxime
	Ertapenem
	Meropenem
	Ciprofloxacin
Staphylococcus aureus	Azithromycin
	Tobramycin
	Trimethoprim/Sulfamethoxazole
	Ceftaroline
	Ceftriaxone
	Clindamycin
	Cefuroxime
	Daptomycin



Staphylococcus aureus	Gentamicin
	Ertapenem
	Linezolid
	Meropenem
	Minocycline
	Imipenem
	Telavancin
	Ciprofloxacin
	Vancomycin

Medications for Intramuscular (IM) Administration

Organism Name	Medication
Moraxella catarrhalis	Ceftriaxone
	Ertapenem
Staphylococcus aureus	Ceftaroline
	Ceftriaxone
	Clindamycin
	Daptomycin
	Gentamicin
	Ertapenem