Precision Health Solutions

Final Report

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:** 07/08/1963 **Age:** 60 Years **Gender:** Male **Patient Address:** 123 Lake **City:** Orlando **State:** FL **Zipcode:** 33655	**Acc #:** D233335555 **Facility:** Heal One **Provider:** John Smith **Collection Date:** 11/28/2023 12:00 P.M **Received in Lab:** 11/28/2023 **Resulted Date:** 11/29/2023 14:30 P.M **Specimen Type:** Wound swab

Wound Panel

Result Summary

Organism(s)	Patient Result	Qualitative	Reference Range
Staphylococcus aureus	Detected	Low	Not Detected

Resistance Gene Marker	Patient Result	Drug Classes	Contraindicated Medications
mecA: PBP2a family beta-lactam-resistant peptidoglycan transpeptidase mecA	Detected	Betalactam: Penam	Methicillin, Penicillin, Amoxicillin

Lab Comment:

Limitations

Negative results do not preclude a wound infection and should not be used as the sole basis for diagnosis, treatment or other patient management decisions. The organism(s) 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. A false negative result may occur if a specimen is improperly collected, transported, or handled. False negative results may also occur if amplification inhibitors are present in the specimen. 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 treatment. Conversion estimates determined by a correlation study, for additional details go to our website: www.precision-healthsolutions.com.

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The following organisms and resistance genes were tested using this Wound panel test and are **NOT DETECTED**

Organism(s)	Patient Result	Reference Range
Gram Positive Bacteria		
Corynebacterium striatum	Not Detected	Not Detected
Enterococcus faecalis	Not Detected	Not Detected
Enterococcus faecium	Not Detected	Not Detected
Staphylococcus epidermidis	Not Detected	Not Detected
Streptococcus agalactiae	Not Detected	Not Detected
Streptococcus pyogenes	Not Detected	Not Detected
Gram Negative Bacteria		
Acinetobacter baumannii	Not Detected	Not Detected
Bacteroides fragilis	Not Detected	Not Detected
Escherichia coli	Not Detected	Not Detected
Klebsiella pneumoniae	Not Detected	Not Detected
Klebsiella oxytoca	Not Detected	Not Detected
Morganella morganii	Not Detected	Not Detected
Pseudomonas aeruginosa	Not Detected	Not Detected
Serratia marcescens	Not Detected	Not Detected
Proteus mirabilis	Not Detected	Not Detected
Proteus vulgaris	Not Detected	Not Detected
Fungus		
Candida albicans	Not Detected	Not Detected
Parasite		
Sarcoptes scabiei	Not Detected	Not Detected
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
tet(M):tetracycline resistance ribosomal protection protein Tet(M)	Not Detected	Not Detected
VIM: B1 Beta lactamse VIM	Not Detected	Not Detected
vanA and vanB: D-alanine--(R)-lactate ligase VanA and VanB	Not Detected	Not Detected

Calling Notes:

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, se-quence specific oligonucleotides probes (dually 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 isabove or below the threshold of detection, in conjunction with the quality and confidence values.

This test aids in the treatment of wound 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 wound samples obtained from individuals

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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
Staphylococcus aureus	Azithromycin
	Trimethoprim/Sulfamethoxazole
	Cefdinir
	Cefpodoxime
	Clindamycin
	Cefuroxime
	Cephalexin
	Linezolid
	Minocycline
	Moxifloxacin
	Ciprofloxacin

Medications for Intravenous (IV) Administration

Organism Name	Medication
Staphylococcus aureus	Azithromycin
	Tobramycin
	Trimethoprim/Sulfamethoxazole
	Ceftaroline
	Ceftriaxone
	Clindamycin
	Cefuroxime
	Daptomycin
	Gentamicin
	Ertapenem
	Linezolid
	Meropenem
	Minocycline
	Imipenem
	Telavancin
	Ciprofloxacin
	Vancomycin

Medications for Intramuscular (IM) Administration

Organism Name	Medication
Staphylococcus aureus	Ceftaroline
	Ceftriaxone

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Staphylococcus aureus	Clindamycin
	Daptomycin
	Gentamicin
	Ertapenem

**Medication not FDA indicated for this use, but it is frequently used to treat gram neg resistant bacteria in UTIs when no other option is available*