Lifetime SCIENCES

UTI Panel

Order RD000-063-943

Patient: Jane Doe
DOB: 01/01/1902
Gender: Female

Provider: Albert C Domm
Practice: Lifetime Sciences Test Account
4037 Rural Plains Circle, Suite 150
Franklin, TN, 37064

Specimen: Midstream Urine
Identifier: SP000-063-922
Collected: 06/02/2022 02:17pm
Received: 06/02/2022 02:28pm
Reported: 06/02/2022 03:51pm

Targets Not Detected

Target	Type	Result	Estimated Microbial Load
Cephamycins and Oxyimino-cephalosporins Resistance (DHA)	ABRX	Not Detected	Not Detected
Class A Beta-lactamases Resistance (KPC)	ABRX	Not Detected	Not Detected
Class A Beta-lactamases Resistance (SHV)	ABRX	Not Detected	Not Detected
Class A Beta-lactamases Resistance (TEM)	ABRX	Not Detected	Not Detected
Class B Metallobeta-lactamases Resistance (IMP)	ABRX	Not Detected	Not Detected
Class B metallo-beta-lactamase resistance (VIM)	ABRX	Not Detected	Not Detected
Class C Beta-lactamases Resistance (AmpC)	ABRX	Not Detected	Not Detected
Class C Beta-lactamases Resistance (FOX)	ABRX	Not Detected	Not Detected
Class C Carbapenemases Resistance (BIL/LAT/ CMY)	ABRX	Not Detected	Not Detected
Class C Carbapenemases Resistance (MOX/ CMY)	ABRX	Not Detected	Not Detected
Class C beta-lactamase resistance (ACC)	ABRX	Not Detected	Not Detected
Class D Oxacillinases Resistance (OXA-23, OXA-72, OXA-40, OXA-48)	ABRX	Not Detected	Not Detected
Extended Spectrum Beta-lactamases	ABRX	Not Detected	Not Detected
Fluoroquinolones Resistance (QnrA, QnrB, QnrS)	ABRX	Not Detected	Not Detected
Methicillin resistance (mecA)	ABRX	Not Detected	Not Detected
Minor Extended Spectrum Beta Lactamase (OXA-GES)	ABRX	Not Detected	Not Detected
Minor Extended Spectrum Beta-Lactamases (PER-1, PER-2)	ABRX	Not Detected	Not Detected
Minor Extended Spectrum Beta-lactamase Resistance (VEB)	ABRX	Not Detected	Not Detected
Sulfonamide Resistance (Sul1/2)	ABRX	Not Detected	Not Detected
Sulfonamide Resistance (dfrA1/A5)	ABRX	Not Detected	Not Detected
Vancomycin Resistance	ABRX	Not Detected	Not Detected
Acinetobacter baumannii	Bacteria	Not Detected	Not Detected
Actinobaculum schaalii	Bacteria	Not Detected	Not Detected
Aerococcus urinae	Bacteria	Not Detected	Not Detected
Alloscardovia omnicolens	Bacteria	Not Detected	Not Detected

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Targets Not Detected (continued)

Target	Type	Result	Estimated Microbial Load
Citrobacter freundii	Bacteria	Not Detected	Not Detected
Citrobacter koseri	Bacteria	Not Detected	Not Detected
Coagulase Negative Staph	Bacteria	Not Detected	Not Detected
Corynebacterium riegelii	Bacteria	Not Detected	Not Detected
Enterobacter aerogenes	Bacteria	Not Detected	Not Detected
Enterobacter cloacae	Bacteria	Not Detected	Not Detected
Enterococcus faecalis	Bacteria	Not Detected	Not Detected
Enterococcus faecium	Bacteria	Not Detected	Not Detected
Escherichia coli	Bacteria	Not Detected	Not Detected
Klebsiella oxytoca	Bacteria	Not Detected	Not Detected
Klebsiella pneumoniae	Bacteria	Not Detected	Not Detected
Morganella morganii	Bacteria	Not Detected	Not Detected
Mycoplasma hominis	Bacteria	Not Detected	Not Detected
Pantoea agglomerans	Bacteria	Not Detected	Not Detected
Proteus mirabilis	Bacteria	Not Detected	Not Detected
Proteus vulgaris	Bacteria	Not Detected	Not Detected
Providencia stuartii	Bacteria	Not Detected	Not Detected
Pseudomonas aeruginosa	Bacteria	Not Detected	Not Detected
Serratia marcescens	Bacteria	Not Detected	Not Detected
Staphylococcus aureus	Bacteria	Not Detected	Not Detected
Streptococcus agalactiae	Bacteria	Not Detected	Not Detected
Ureaplasma urealyticum	Bacteria	Not Detected	Not Detected
Viridans Group Strep	Bacteria	Not Detected	Not Detected
Candida albicans	Fungi	Not Detected	Not Detected
Candida auris	Fungi	Not Detected	Not Detected
Candida glabrata	Fungi	Not Detected	Not Detected
Candida parapsilosis	Fungi	Not Detected	Not Detected

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Methodology

Total nucleic acid extraction is performed using DNA MagMax MVPII Kits, which are validated by their manufacturer to yield isolated nucleic acids of sufficient quantity and quality from the relevant sample types. Presence of either pathogenic nucleic acids and/or genetic markers documented to confer resistance to antimicrobial compounds was determined by conducting RT-PCR reactions with primers designed to target species-specific (or marker-specific) genomic regions. RT-PCR reactions were either conducted in single-reaction wells, or through OpenArray methodologies. Bacterial and fungal targets may be reported semi-quantitatively with microbial load estimates calculated based on Crt comparisons with controls of known concentrations. All sample runs contain a minimum of one negative extraction control (NEC), one negative template control (NTC), and one positive control of known pathogenic/ABX marker composition (PTC). All RT-PCR reactions are conducted using TaqMan chemistry from Thermo Fisher. Nucleic acid-based pathogen detection is performed on the QuantStudio 12K platform. This platform was designed by Applied Biosystems, Inc. and utilizes quantitative real-time PCR in conjunction with fluorescently-labelled nucleic acid probes. A DETECTED result signifies that amplification of genus, species, or marker-specific (dependent on the analyte) genetic markers was observed, based on validated detection metrics.

Disclaimer and Limitations

Nucleic acid-based pathogen detection (PD) is a laboratory-developed test (LDT) and as such, is not cleared by the FDA. Pathogen and antimicrobial marker screening at Lifetime Sciences does not screen for the presence of all pathogens documented to cause infections in the referenced tissues, nor every genetic markers documented to confer antimicrobial resistance. There may also be pathogens and resistance markers present that are not screened for nor previously documented. Nucleic acid-based pathogen detection analysis is intended to aid physicians in identifying underlying pathogens within a patient sample to help advise on possible treatment avenues. It should not be used in the contexts of diagnosis or supplant physician recommendations. These results should be interpreted along with clinical presentations and/or other laboratory results. These results and their clinical interpretations may not be accurate if the patient information/sample supplied is incomplete or inaccurate. If these results do not match clinical presentations, additional testing is recommended. The LDTs reported here were developed and had its performance metrics determined by Lifetime Sciences. Lifetime Sciences is certified under the Clinical Laboratory Improvements Act (CLIA) to perform high-complexity clinical laboratory testing. For other questions/concerns, please contact Lifetime Sciences.