



Acct:	Patient:	Age: 25
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Chart#	Coll. Time: 04:15 PM	Recv. Time: 03:47 AM	Print Time: 17:18
First reported on:	11/11/22	Final report date:	11/13/22

Test Name	Normal	Out of Range	Normal Range	Units
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**Report Status: FINAL**  
**URINARY TRACT INFECTION**  
**ENTEROCOCCUS SPP.**

E.faecium	Not Detected		Not Detected
E.faecalis	Not Detected		Not Detected

**STAPHYLOCOCCUS SPP.**

S.aureus	Not Detected		Not Detected
S.saprophyticus	Not Detected		Not Detected

**Detected- Not Significant**

**PROTEUS SPP.**

P.vulgaris	Not Detected		Not Detected
P.mirabilis	Not Detected		Not Detected

**CITROBACTER SPP.**

C.freundii	Not Detected		Not Detected
C.koseri	Not Detected		Not Detected

**ESCHERICHIA SPP.**

E.coli	Not Detected		Not Detected
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**ENTEROBACTER SPP.**

E.cloacae complex	Not Detected		Not Detected
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**SERRATIA SPP.**

S.marcescens	Not Detected		Not Detected
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**CANDIDA SPP.**

C.albicans		<b>Detected Medium</b>	Not Detected
CandidaOther(CG,CP,CT,CK)	Not Detected		Not Detected

**STREPTOCOCCUS SPP.**

S.agalactiae (GBS)	Not Detected		Not Detected
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**AEROCOCCUS SPP.**

A.urinae	Not Detected		Not Detected
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**MORGANELLA SPP.**

M.morganii	Not Detected		Not Detected
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**ACINETOBACTER SPP.**

A.baumannii	Not Detected		Not Detected
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**PROVIDENCIA SPP.**

P.stuartii	Not Detected		Not Detected
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**PSEUDOMONAS SPP.**

P.aeruginosa	Not Detected		Not Detected
K.aerogenes	Not Detected		Not Detected
K.oxytoca	Not Detected		Not Detected

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**URINARY TRACT INFECTION (Continued)**

K.pneumoniae	Not Detected		Not Detected	
C.urealyticum	Not Detected		Not Detected	

**Positive for UTI**

INTERPRETATION  
DISCLAIMER:

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Interpretation:

Detected = Detected with one of the options from below  
 High = CT values less than corresponding to  $>10^5$  CFU/mL  
 Medium = CT values equal to corresponding to  $>10^3$  to  $10^5$  CFU/mL  
 Not significant = CT values equal to corresponding to  $10^1$  to  $10^3$  CFU/mL

Not detected = No amplification or CT higher than corresponding to  $<10^1$  CFU/mL

Limitations:

This test cannot rule out co-infection caused by other pathogens that are not tested in this panel. False negative results are rare but can occur due to the presence of sequence variants in the targets of the assay, amplification inhibitors in samples, or inadequate numbers of organism(s) for amplification. False positive results are rare but can occur due to genetically similar pathogens (such as E.coli and Shigella Species), presence of nonviable pathogens in the patient's urine post-infection or following treatment, cross-contamination by target organism(s), their nucleic acid or from non-specific signals in the assay. The pathogen(s) detected may not be the definite cause of disease.

Reported counts of Detected - Not significant ( $10^1$  to  $10^3$  CFU/mL) are usually not clinically significant and may indicate contamination. Some organisms at lower CFU/mL concentration may be pathogenic and cause infection. If the specimen is suspected to be contaminated, a fresh specimen must be sent for re-test. Results should be interpreted in conjunction with information available from other relevant tests and the patient's clinical profile.

METHOD: The Urinary Tract Infection panel is performed using Real-time  
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**URINARY TRACT INFECTION (Continued)**

polymerase chain reaction (qPCR).  
CandidaOther (CG,CP, CT,CK) panel can detects but does not differentiate between the following candida species: Candida glabrata, Candida parapsilosis, Candida tropicalis and Candida krusei. S.agalactiae (GBS) is also known as Group B Streptococcus.

This test was developed, and its performance characteristics determined by Accu Reference Medical Lab LLC. It has not been cleared or approved by the US Food and Drug Administration. The FDA does not require such approval. This test is used for clinical purposes and should not be regarded as investigational or for research. This laboratory is certified under CLIA as qualified to perform high complexity clinical laboratory testing.

THE SOURCE: URINE

**ANTIBIOTIC GENE RESISTANCE PANEL,PCR AMINOGLYCOSIDES**

aac(6')-Ib-cr NOT DETECTED NOT DETECTED  
INTERPRETATION \*

Detection of the aac(6')-Ib-cr variant gene may confer resistance against Aminoglycoside group of antibiotics (such as Gentamicin, Tobramycin, Amikacin, Plazomicin, Streptomycin, Neomycin, and Paromomycin) and Fluoroquinolone group of antibiotics (such as Levofloxacin , Ciprofloxacin, Ciprofloxacin extended-release tablets, Moxifloxacin , Ofloxacin, Gemifloxacin and Delafloxacin) simultaneously.

**QUINOLONES/FLOROQUINOLONES**

qnrS NOT DETECTED NOT DETECTED  
qnrA NOT DETECTED NOT DETECTED  
INTERPRETATION \*

Detection of Quinolone/Fluoroquinolone resistance genes (qnrS, qnrA) may confer resistance to Fluoroquinolone group of antibiotics (such as Levofloxacin, Ciprofloxacin, Ciprofloxacin extended-release tablets, Moxifloxacin, Ofloxacin, Gemifloxacin and Delafloxacin.

**SULFONAMIDE**

Sul1 NOT DETECTED NOT DETECTED  
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**ANTIBIOTIC GENE RESISTANCE PANEL,PCR (Continued)**

Sul2	NOT DETECTED	NOT DETECTED
INTERPRETATION	*	

Detection of Sulfonamide resistance genes (Sul1 and Sul2) can confer resistance to sulfonamide/sulpha drugs such as Bactrim,Bactrim DS, Cotrim,Cotrimoxazole, Erythromycin/sulfisoxazole, Pediazole, Septra, Sulfadiazine, Sulfatrim, Trimethoprim/sulfamethoxazole.

**BETA-LACTAMASE CLASS A**

KPC	NOT DETECTED	NOT DETECTED
CTX-M1	NOT DETECTED	NOT DETECTED
CTX-M2	NOT DETECTED	NOT DETECTED
SHV-1	NOT DETECTED	NOT DETECTED
INTERPRETATION	*	

Detection of Beta lactamase class A genes (KPC, SHV or CTX-M) can confer resistance to Monobactams (such as Aztreonam), most third-generation Cephalosporins (Cefotaxime, Ceftriaxone, and Ceftazidime) and, in some cases, fourth-generation Cephalosporins (Cefepime and Cefpirome) and Beta lactams (Clavulanic acid and Tazobactam).

**BETA-LACTAMASE CLASS B**

NDM	NOT DETECTED	NOT DETECTED
VIM	NOT DETECTED	NOT DETECTED
IMP-1	NOT DETECTED	NOT DETECTED
IMP-3	NOT DETECTED	NOT DETECTED
INTERPRETATION	*	

Detection of Beta lactamase class B genes (NDM, VIM or IMP) can confer resistance to most third-generation Cephalosporins (Cefotaxime, Ceftriaxone, and Ceftazidime) and, in some cases, even fourth-generation Cephalosporins (Cefepime and Cefpirome).

**BETA-LACTAMASE CLASS C**

CMY	NOT DETECTED	NOT DETECTED
DHA	NOT DETECTED	NOT DETECTED
FOX	NOT DETECTED	NOT DETECTED
INTERPRETATION	*	

Detection of Beta lactamase class C genes (CMY, DHA or FOX) can confer resistance to broad-spectrum Cephalosporins (such as Cefotaxime, Ceftriaxone, and Ceftazidime) and Penicillin group of antibiotics.

**BETA-LACTAMASE CLASS D**

OXA-1	NOT DETECTED	NOT DETECTED
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**ANTIBIOTIC GENE RESISTANCE PANEL,PCR (Continued)**

OXA-23	NOT DETECTED	NOT DETECTED	NOT DETECTED	
OXA-48	NOT DETECTED	NOT DETECTED	NOT DETECTED	
INTERPRETATION	*			

Detection of Beta lactamase class D genes (OXA 1 like, OXA-23 like or OXA-48 like) can confer resistance to Penicillin, Cloxacillin, Oxacillin and some Carbapenems.

**MACROLIDES**

ermA	NOT DETECTED	NOT DETECTED	NOT DETECTED	
ermB	NOT DETECTED	NOT DETECTED	NOT DETECTED	
ermC	NOT DETECTED	NOT DETECTED	NOT DETECTED	
INTERPRETATION	*			

Detection of Macrolides resistance genes (ermA, ermB or ermC) can confer resistance towards Macrolide group of antibiotics (Erythromycin, Clarithromycin, Azithromycin)

**METHICILLIN**

mecA	NOT DETECTED	NOT DETECTED	NOT DETECTED	
INTERPRETATION	*			

Detection of mecA gene can confer resistance to Methicillin such as Oxacillin.

**TETRACYCLINE**

tetB	NOT DETECTED	NOT DETECTED	NOT DETECTED	
tetM	NOT DETECTED	NOT DETECTED	NOT DETECTED	
INTERPRETATION	*			

Detection of Tetracycline group of antibiotics (tetB or tetM) genes can confer resistance to tetracycline group of antibiotics (Tetracycline, Minocycline, Doxycycline, Oxytetracycin)

**VANCOMYCIN**

vanA	NOT DETECTED	NOT DETECTED	NOT DETECTED	
vanB	NOT DETECTED	NOT DETECTED	NOT DETECTED	
INTERPRETATION	*			

Detection of vanA or vanB genes can confer resistance to Vancomycin group of antibiotics (Vancomycin, Teicoplanin, Ristocetin)

Disclaimer:

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DETECTED = Target nucleic acid detected  
NOT DETECTED = Target nucleic acid Not detected

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**ANTIBIOTIC GENE RESISTANCE PANEL,PCR (Continued)**

"Detected/ Not Detected" values represent qualitative results based on the cut-off thresholds developed by the laboratory.

Method : Multiplex real time PCR.

This assay is intended to aid in early detection of Antibiotic resistance genes for deciding on a suitable course of treatment and preventing the spread of resistant pathogens by proper infection control protocols. This assay is not intended to guide or monitor treatment of infection.

A negative result does not exclude the presence of other resistance mechanisms by genes that are not included in the panel and novel resistance mechanism that have not yet been defined. False negative results are rare but can occur due to the presence of sequence variants in the targets of the assay, or inadequate numbers of organism(s) for amplification.

In cases where co-infection with two or more pathogens is detected, the antibiotic resistance genes are tested for the pool (total DNA extracted) and not for individual pathogens. Therefore, in cases of co-infection, the assay cannot discriminate which pathogen has contributed to which antibiotic resistance gene. Some genes, such as the mec A gene, can be contributed by Staphylococcus epidermidis or Staphylococcus aureus. False positive results are rare but can occur due to presence of genetically similar pathogens, potential cross-contamination by target nucleic acid or from non-specific signals in the assay. Results should be interpreted in conjunction with information available from other relevant tests and the patient's clinical profile.

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This multiplex real-time PCR test(s) was developed and its performance characteristics determined by Accu Reference Medical Lab, LLC. It has not been cleared or approved by the Food and Drug Administration. The FDA has determined that such clearance or approval is not necessary. Accu Reference Medical Lab, LLC. is certified to perform high complexity clinical laboratory testing. This test is used for clinical purposes.

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**ANTIBIOTIC GENE RESISTANCE PANEL,PCR (Continued)**

It should not be regarded as investigational or for research.

**COMMENTS:**

----- END OF REPORT -----

**Laboratory Director:**