GUIDANCE COMPREHENSIVE RECURRENT, PERSISTENT, OR COMPLICATED UTI REPORT

Pathnostics

Patient: Firstname Lastname
DOB: 07/19/2019
Gender: U
Phone: (###) ###-####
MRN#: 1234

Ordering Physician:
Facility: Pathnostics
Phone: (714) 966-1221
Fax: (714) 966-1231

Case#: PUXR19-000004
Collection Method: Voided
Date Collected: 07-19-2019
Date Received: 07-20-2019
Date Reported: 07-21-2019

RESULTS: PATHOGENIC DNA DETECTED

Organism(s) Tested - Detected:

Escherichia coli <10,000 cells/mL

Proteus mirabilis >100,000 cells/mL

See page 3 for organism(s) tested - not detected

Antibiotic Sensitivity Detected:

Ampicillin (PO/IV)
Ampicillin / Sulbactam (IV)
Cefaclor (PO)
Cefepime (IV)
Ceftazidime (IV)
Ceftriaxone (IM/IV)
Ciprofloxacin (PO/IV)
Gentamicin (IM/IV)
Levofloxacin (PO/IV)
Meropenem (IV)
Nitrofurantoin (PO)
Piperacillin / Tazobactam (IV)

Antibiotic Resistance Detected:

Amoxicillin / Clavulanate (PO)
Cefazolin (IV)
Cefoxitin (IV)
Sulfamethoxazole / Trimethoprim (PO/IV)
Tetracycline (PO)
Vancomycin (IV)

Antibiotic Resistance Genes Detected:

None

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	Gentamicin	Meropenem	Sulfamethoxazole / Trimethoprim	Amoxicillin / Clavulanate	Ampicillin / Sulbactam	Piperacillin / Tazobactam	Cefaclor	Cefazolin	Cefoxitin	Ceftriaxone	Ceftazidime	Cefepime	Ciprofloxacin	Levofloxacin	Ampicillin	Fosfomycin	Nitrofurantoin	Tetracycline	Vancomycin
Formulations	IM/IV	IV	PO/IV	PO	IV	IV	PO	IV	IV	IM/IV	IV	IV	PO/IV	PO/IV	PO/IV	PO	PO	PO	IV
Pooled Phenotypic Sensitivity	S	S	R	R	S	S	S	R	R	S	S	S	S	S	S	-	S	R	R
MIC Results (ug/mL)	4	1			8/4	16/4	8			1	4	1	1	1	16	-	32		
Pooled Resistance Gene(s) Identified																			
Bacterial Organism(s)																			
Escherichia coli	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	
Proteus mirabilis	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			

✓ = Supportive Evidence S = Sensitive R = Resistant **RGI** = Resistance Gene Identified

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Organism(s) Tested - Not Detected:

Bacteria: *Acinetobacter baumannii, Citrobacter freundii, Citrobacter koseri, Coagulase Negative Staph Group, Enterococcus faecalis, Klebsiella aerogenes, Klebsiella oxytoca, Klebsiella pneumoniae, Morganella morganii, Pantoea agglomerans, Providencia stuartii, Pseudomonas aeruginosa, Serratia marcescens, Staphylococcus aureus, Streptococcus agalactiae*

Fastidious Bacteria: *Actinotignum schaalii, Aerococcus urinae, Alloscardovia omnicolens, Corynebacterium riegelii, Mycoplasma genitalium, Mycoplasma hominis, Streptococcus pyogenes, Ureaplasma urealyticum, Viridans Group Strep*

Virus: Adenovirus, BK Virus, Human Herpes Virus -1,-2 (HSV -1,-2), Human Herpes Virus -5 (CMV), Human Herpes Virus -6 (HHV-6), Human Herpes Virus -7 (HHV-7), JC Virus

Yeast: Candida albicans, Candida glabrata, Candida parapsilosis

Antibiotic Resistance Genes Tested - Not Detected:

Macrolide Resistance, ESBL Resistance, Broad Spectrum^, Carbapenem Resistance, Quino/Fluoroquinone, Methicillin Resistance, Ampicillin Resistance, Vancomycin Resistance

Clinically Recommended Antifungal Agents: Amphotericin B (IV), Anidulafungin (IV), Caspofungin (IV), Fluconazole (PO/IV), Isavuconazole (PO/IV), Itraconazole (PO), Micafungin (IV), Posaconazole (PO/IV), Voriconazole (PO/IV)
Antiviral Agents: Cidofovir for BK virus; Cidofovir or Vidarabine for Adenovirus; Foscarnet or Cidofovir for CMV; Acyclovir or Valacyclovir for HSV 1/2 and HHV 6/7. Please refer to DOI: 10.1007/s11918-007-006-7 for further specific treatment information.
Information About the Table: Supportive Evidence indicates situations for which antibiotic use (either FDA-approved or off label) is illustrated in peer reviewed literature. Treatment options are not intended to be prescriptive for this patient. Appropriate medical judgement should be exercised by the attending physician before prescribing a course of treatment. Moreover, changes in research studies may occur. Although we attempt to update the report with new data promptly, we cannot prevent delays. White boxes indicate situations where the pool of organisms was susceptible to an antibiotic and there is supportive evidence for all bacterial organisms listed. In the case for which pooled antibiotic sensitivity could not be performed, highlighted boxes reflect situations for which the antibiotics are clinically recommended for all bacteria listed.
Pooled Phenotypic Sensitivity: Antibiotic susceptibility testing performed when at least a single organism within a pool of organisms reaches at least 10,000 cells/ml and can grow in the presence of the antibiotic in the assay within the time of testing. Antibiotic susceptibility testing is currently unavailable for *Ureaplasma urealyticum, Actinobaculum schaalii, Aerococcus urinae, Alloscardovia omnicolens, Corynebacterium riegelii, Mycoplasma hominis*, and *Mycoplasma genitalium* due to fastidious characteristics in vitro. Susceptibility testing is not performed for Viridans Streptococci and *Streptococcus pyogenes* because suggested antibiotics have a high efficacy rate.
Pooled Resistance Genes Identified: Detects the presence of targeted resistance genes within the pool of DNA isolated from the detected organisms.
"^"=Broad Spectrum Resistant genes identified confers resistance across multiple classes of antibiotics including Penicillin derivatives, cephalosporins, monobactams and carbapenems. Refer to table to identify antibiotics for which the resistance gene may impact.
Methodology and Clinical Significance: Pathnostics' Guidance utilizes PCR amplification for the targeted detection of agents. Pathogens are reported in ranges: 'no pathogenic DNA detected'. Detected: "<10,000", "10,000-49,999", "50,000-99,999", or ">100,000" organism(s) per milliliter of urine. Detected resistance genes are shown as RGI (Resistance Gene Identified). In addition, phenotypic antimicrobial susceptibility results are ascertained for the detected polymicrobial population by employing a high-throughput, broth microdilution, spectrophotometric assay in which the detected mono or polymicrobial population is applied to a panel of antimicrobial agent's array on a microplate to determine the minimum inhibitory concentration (MIC).
*Coagulase Negative Staphylococcus includes: *Staphylococcus epidermidis*, *Staphylococcus haemolyticus*, *Staphylococcus lugdunenesis*, and *Staphylococcus saprophyticus*
*Viridans Streptococci group includes: *Streptococcus anginosus*, *Streptococcus oralis* and *Streptococcus pasteurianus*
*Taxonomic Updates includes: *Actinobaculum schaalii* to *Actinotignum schaalii*. *Enterobacter aerogenes* to *Klebsiella aerogenes*.
Disclaimer: This test was developed and its performance characteristics determined by Pathnostics. It has not been cleared or approved by the US Food and Drug Administration. The FDA has determined that such clearance or approvals is not necessary. This test is used for clinical purposes. It should not be regarded as investigational or for research. This laboratory is certified under the Clinical Laboratory Improvement Amendments of 1988 (CLIA-88) as qualified to perform high complexity clinical testing. Urine specimens received greater than 5 days post collection may give unreliable cells/mL counts due to overgrowth of microorganism(s).

V4.5F

Electronically Signed By : cbrine at 07/21/2019 11:48 am