

Accession: NXGMDX-999999 Created: March 12, 2020 Patient Gender: Female Date Of Birth: September 9, 1999 Specimen Type: Urine Collection Date: March 12, 2020

Receiving Facilities: Sample Facilty, Grand Rapids MI

RESULTS SUMMARY:

NxGen MDx

Receiving Physicians: Dr. Jones

Pathogenic organisms detected in this sample are detailed in the table below. These results are consistent with a diagnosis of urinary tract infection (UTI).

Evidence of antibiotic resistance was detected and is reflected in the table below.

Detected Pathogens	Pathogen Type	Copies/µl eq.	Normal Range	Prescribable* Options
Enterococcus faecalis	Bacteria	10,000-100,000	<2,000	Nitrofurantoin, Fosfomycin, Amoxicillin, Ampicillin

*Prescribable antibiotics are included as prescribing options due to lack of detected antibiotic resistance genes. Physicians should use this as a guide and prescribe antibiotics based upon patient symptoms and medical history, including such factors as allergies, other medications, and pregnancy status.

Not Prescribable: Antibiotic Resistance Detected	Resistance	
Clindamycin	Detected	
Pathogens Not Detected	Normal Result	
Acinetobacter baumannii	Not detected	
Candida albicans	Not detected	
Citrobacter freundii	Not detected	
Enterobacter aerogenes	Not detected	
Enterobacter cloacae	Not detected	
Enterococcus faecium	Not detected	
Escherichia coli	Not detected	
Klebsiella oxytoca	Not detected	
Klebsiella pneumoniae	Not detected	
Morganella morganii	Not detected	
Proteus mirabilis	Not detected	
Proteus vulgaris	Not detected	
Providencia stuartii	Not detected	
Pseudomonas aeruginosa	Not detected	
S. agalactiae (Group B Strep)	Not detected	

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Pathogens Not Detected	Normal Result
S. saprophyticus	Not detected

METHODS AND LIMITATIONS:

DNA is isolated from the sample and array-based qPCR assays simultaneously detect *Acinetobacter baumannii*, *Candida albicans, Citrobacter freundii, Enterobacter aerogenes, Enterobacter cloacae, Enterococcus faecalis, Enterococcus faecium, Escherichia coli, Klebsiella oxytoca, Klebsiella pneumoniae, Morganella morganii, Proteus mirabilis, Proteus vulgaris, Providencia stuartii, Pseudomonas aeruginosa, Staphylococcus saprophyticus,* and *Streptococcus agalactiae (Group B Strep)* at analytical sensitivity and specificity >99%. The qPCR data is interpreted using an algorithm developed at NxGen MDx, and the detected presence and/or absence of microbia is reported.

Array-based qPCR assays are used to detect common molecular antibiotic resistance markers at analytical sensitivity and specificity >99%. The qPCR data is interpreted using an algorithm developed at NxGen MDx, and the detected presence and/or absence of antibiotic resistance markers is reported. Azole antifungal resistance, tetracycline antibiotic resistance, and nitrofuran antibiotic resistance are not detected by this assay. ACOG or CDC guidelines are displayed for prescribable antibiotics.

This test has not been cleared or approved by the U.S. Food and Drug Administration. However, the FDA has determined that such a clearance or approval is not necessary. The FDA does not require this test to go through premarket FDA review. This test is used for clinical purposes. It should not be regarded as investigational or for research. The laboratory is certified under the Clinical Laboratory Improvement Amendments of 1988 (CLIA) as qualified to perform high complexity clinical laboratory testing. This test was performed at NxGen MDx, located at 801 Broadway Suite 203, Grand Rapids, Michigan-49504. CLIA Number: 23D2059943.