

# Urinary Tract Infections

Urinary tract infections are a major cause of morbidity in the United States. They are the second most common infection after respiratory infections, and largely affect women. Approximately 11% of women suffer from a UTI, 60% of women will have at least one UTI during their lifetime, 25% of UTIs will recur within six months of the initial infection. Although UTIs are not sexually transmitted, they frequently occur in young, sexually active women, although they are by no means confined to this population. Medical Diagnostic Laboratories (MDL) has developed sensitive and specific Real-Time PCR tests to detect these pathogens in **UroSwab**<sup>®</sup> specimens to assist the physician in the diagnosis of UTI. We offer two urinary tract infection panels:

## Urinary Pathogens Antibiotic Resistance

*E. coli*  
*Enterococcus faecium*  
*Klebsiella pneumoniae*

- amoxicillin-clavulanic acid
- cephalothin (cephalexin)
- trimethoprim-sulfamethoxazole
- nitrofurantoin
- ciprofloxacin
- fosfomicin

*Enterococcus faecalis*  
*Klebsiella oxytoca*  
*Proteus mirabilis*

- ampicillin
- nitrofurantoin
- ciprofloxacin
- fosfomicin
- doxycycline
- linezolid

**With colony counts at no additional cost**



*Escherichia coli*

## Urinary Tract Infection Tests Available

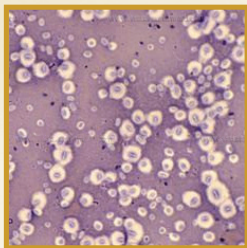
(male and female specimens)

### Test No. 6286 Urinary Pathogens Panel

- 153 *Enterococcus faecalis* by Real-Time PCR
- 154 *Enterococcus faecium* by Real-Time PCR
- 141 *Escherichia coli* by Real-Time PCR
- 127 Group B Streptococcus (GBS) by Real-Time PCR
- 137 Group B Streptococcus (GBS) Antibiotic Resistance
- 727 *Klebsiella oxytoca*
- 728 *Klebsiella pneumoniae*
- 146 *Proteus mirabilis* by Real-Time PCR
- 174 *Pseudomonas aeruginosa* by Real-Time PCR
- 151 *Staphylococcus saprophyticus* by Real-Time PCR
- 176 **Urinary Pathogens Antibiotic Resistance Testing** (*E. coli*, *Enterococcus faecalis*, *Enterococcus faecium*, *K. oxytoca*, *K. pneumoniae*, *Proteus mirabilis*)

### Test No. 6815 Complex Urinary Tract Infection Panel

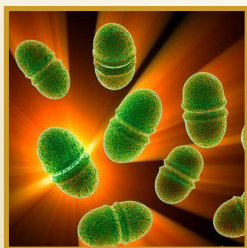
- 551 *Candida albicans* by Real-Time PCR
- 576 *Candida dubliniensis* by Real-Time PCR
- 559 *Candida glabrata* by Real-Time PCR
- 578 *Candida kefyr* by Real-Time PCR
- 566 *Candida krusei* by Real-Time PCR
- 577 *Candida lusitanae* by Real-Time PCR
- 558 *Candida parapsilosis* by Real-Time PCR
- 557 *Candida tropicalis* by Real-Time PCR
- 129 *Mycoplasma genitalium* by Real-Time PCR (Reflex to azithromycin & fluoroquinolone resistance)
- 130 *Mycoplasma hominis* by Real-Time PCR
- 178 *Ureaplasma parvum* by Real-Time PCR (Reflex to antibiotic resistance by Molecular Analysis)
- 320 *Ureaplasma urealyticum* by Real-Time PCR (Reflex to antibiotic resistance by Molecular Analysis)



*Klebsiella species*



*Proteus mirabilis*



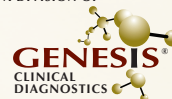
*Enterococcus species*



A MEMBER OF GENESIS BIOTECHNOLOGY GROUP

Medical Diagnostic Laboratories  
www.mdlab.com • 877.269.0090

A DIVISION OF



IH0036 Upd: 3\_13\_2024

# Available on the UroSwab<sup>®</sup>...



MEDICAL DIAGNOSTIC LABORATORIES  
2439 KUSER ROAD  
HAMILTON, NJ 08690-3303  
TL: 609-570-1000 FX: 609-570-1050 TF: 877-269-0090  
www.mdlab.com

**Final  
Test Results**

MDL#: 8875032

Patient Information: SSN: N/A DOB: 1/1/1978 (Age:43)	Ordering Physician/Lab: NPI: 1234567890 DOE WOMANS GROUP JOHN DOE, MD 555 SMITH STREET ANYTOWN, NJ 55555
DOE, JANE 123 MAIN ROAD MARLTON, NJ 08053	Tel: (856) 555-5552 Fax: (856) 555-5553
Sex: Female Home: (856) 666-6666	

Patient ID: \_\_\_\_\_ Date Received: 7/4/2023 Date Reported: 7/12/2023

Test	Specimen	Date Collected Comment	Normal	Results	Abnormal	Reference/Units/Comments
Escherichia coli by Real-Time PCR		7/3/2023 Not Indicated	Negative			
141 Verified 7/8/2023	UroSwab - 1					
Proteus mirabilis by Real-Time PCR		7/3/2023 Not Indicated	Negative			
146 Verified 7/8/2023	UroSwab - 1					
Enterococcus faecalis by Real-Time PCR		7/3/2023 Not Indicated		Positive		Uropathogen. Colony Count: >= 10 <sup>5</sup> CFU/ml. AST performed: SENSITIVE TO Ampicillin, Ciprofloxacin, Fosfomycin, Linezolid, Nitrofurantoin. INTERMEDIATE TO Doxycycline.
153 Verified 7/8/2023	UroSwab - 1					
Enterococcus faecium by Real-Time PCR		7/3/2023 Not Indicated	Negative			
154 Verified 7/10/2023	UroSwab - 1					
Pseudomonas aeruginosa by Real-Time PCR		7/3/2023 Not Indicated	Negative			
174 Verified 7/8/2023	UroSwab - 1					
Urinary Pathogens (E. coli, Klebsiella spp., P. mirabilis, E. faecalis, E. faecium, GBS, P. aeruginosa) Antibiotic Resistance Testing		7/3/2023 Not Indicated				See Comments For UroSwab-1: Efecalis.
178 Verified 7/12/2023	UroSwab - 1					
Klebsiella oxytoca by Real-Time PCR		7/3/2023 Not Indicated	Negative			
727 Verified 7/8/2023	UroSwab - 1					
Klebsiella pneumoniae by Real-Time PCR		7/3/2023 Not Indicated	Negative			
728 Verified 7/8/2023	UroSwab - 1					



- Real-Time PCR
- Simple, Convenient & Non-invasive sample collection
- No refrigeration required before or after collection
- Specimen viability up to five (5) days after collection
- Test additions available up to 30 days after collection

Page 1 of 3

View: M  
Mail: Yes USPS All Yes  
Fax: Yes Manual All No  
Medical Director: Jing-Jing Yang, M.D.

MDL#: 8875032 63813  
7/12/2023  
PATH Final



MEDICAL DIAGNOSTIC LABORATORIES  
2439 KUSER ROAD  
HAMILTON, NJ 08690-3303  
TL: 609-570-1000 FX: 609-570-1050 TF: 877-269-0090  
www.mdlab.com

**Final  
Test Results**

MDL#: 8875032

Patient Information: SSN: N/A DOB: 1/1/1978 (Age:43)	Ordering Physician/Lab: NPI: 1234567890 DOE WOMANS GROUP JOHN DOE, MD 555 SMITH STREET ANYTOWN, NJ 55555
DOE, JANE 123 MAIN ROAD MARLTON, NJ 08053	Tel: (856) 555-5552 Fax: (856) 555-5553
Sex: Female Home: (856) 666-6666	

Patient ID: \_\_\_\_\_ Date Received: 7/4/2023 Date Reported: 7/12/2023

Test	Specimen	Date Collected Comment	Normal	Results	Abnormal	Reference/Units/Comments
------	----------	---------------------------	--------	---------	----------	--------------------------

\*This test was developed and its performance characteristics determined by the laboratory. It has not been cleared or approved by the U.S. Food and Drug Administration. The FDA has determined that such clearance or approval is not necessary.

UroSwab-1176: Urinary Pathogens (E. coli, Klebsiella spp., P. mirabilis, E. faecalis, E. faecium, GBS, P. aeruginosa) Antibiotic Resistance Testing  
Clinical and Laboratory Standards Institute (CLSI) recommendations and antibiotic abbreviations: AM - Ampicillin; AMC - Amoxicillin/Clavulanic Acid; AZT - Aztreonam; CF - Cephalothin is used to predict the activity of oral cephalosporins: cephalexin, cefadroxil, cefaclor, and cephadrine; CIP - Ciprofloxacin; CIP can also be used to predict the activity of Levofloxacin; CM - Clindamycin; DOX - Doxycycline; FEP - Cefepime; FM - Nitrofurantoin; FOS - Fosfomycin; GM - Gentamicin; IPM - Imipenem; LZD - Linezolid; TZP - Piperacillin-Tazobactam; SXT - Trimethoprim-sulfamethoxazole. GBS is uniformly sensitive to Beta-lactam antibiotics, which includes penicillin, ampicillin, amoxicillin, amoxicillin/clavulanic acid, ceftazolin, and cephalixin. GBS resistance to nitrofurantoin is very rare.

A positive result is provided for bacteria, virus, parasites, and/or fungal species when PCR amplification (real-time PCR), sequence information (pyrosequencing), and/or sequencing analysis occurs above cut-off levels established by the laboratory. Pertinent reference intervals for the tests reported above are available from the laboratory upon request.

Page 2 of 3

View: M  
Mail: Yes USPS All Yes  
Fax: Yes Manual All No  
Medical Director: Jing-Jing Yang, M.D.

MDL#: 8875032 63813  
7/12/2023  
PATH Final

MEDICAL DIAGNOSTIC LABORATORIES, L.L.C.



Recommendations for Treatment

MDLNO: 8875032-1 Specimen: UroSwab Source: Not Indicated Date of Service: 07/06/2023  
Patient: DOE, JANE Date Created: 07/12/2023

Summary:

This specimen is composed of abnormal *Enterococcus faecalis*. The presented recommendations are limited by the testing that was actually performed for this date of service.

Dr. Faro's Alternative Recommendation:

Mupirocin, 10 mg vaginal suppositories, One intravaginally at bed time every night for 7 days.  
Begin oral probiotic 1 capsule daily for 6 months (minimum).  
Begin vaginal probiotic suppositories when mupirocin treatment is completed, one probiotic intravaginal suppository at bed time every night for 4 weeks.



Dr. Sebastian Faro is one of the world's leading OB/GYNs. A board-certified obstetrician and gynecologist who has practiced general obstetrics and gynecology for over 40 years, Dr. Faro has welcomed tens of thousands of healthy babies into the world while continuing to mentor fellow doctors. Dr. Faro received his Ph.D. from the University of Iowa and his medical degree from Creighton University School of Medicine in Omaha, Nebraska. He has written and edited several medical textbooks pertaining to diseases in obstetrics and gynecology. He is a member of the American Gynecological and Obstetrical Society and a Fellow of the Infectious Disease Society of America. Dr. Faro is currently Clinical Professor of OB/GYN, Department of OB/GYN, School of Medicine, at the University of Houston in Houston, Texas. Physician's may contact Dr. Faro for consultation at 713.795.1709 or sebfaro6272@yahoo.com

Page 3 of 3

Ver. 20.23

1-UroSwab TG 73

07/12/2023