

ELLIOT HOSPITAL URINE ANTIBIOGRAM

January – December 2025

Percent Susceptible

This antibiogram is based on data generated for patients of all ages.

Gram Negative Organisms																	
ORGANISM	# Isolates	Ampicillin	Ampicillin-sulbactam	Amoxicillin-clavulanate	Cefazolin	Cefepime	Ceftriaxone	Ceftazidime	Ciprofloxacin	Ertapenem for ESBL	Fosfomycin for ESBL Δ	Gentamicin	Levofloxacin	Nitrofurantoin	Piperacillin-tazobactam	Tobramycin	Trimethoprim-sulfamethoxazole
Escherichia coli β	4357	62	68	89	76	94	93		85	99	99 (386)	92		99		94	81
Citrobacter freundii complex	126	0	0	0	0	97	63		93			96		94		95	93
Enterobacter cloacae complex	173	0	0	0	0	94	59		90			96		43		96	93
Klebsiella aerogenes	93	0	0	0	0	99	76		99			100		40		100	97
Klebsiella pneumoniae β	907	0	78	90	80	86	86		81	99		93		55		91	81
Morganella morganii	86	0	10	0	0	99	82		87			98		0		99	90
Proteus mirabilis β	501	81	91	98	73	98	98		78			93		0		95	82
Pseudomonas aeruginosa	353							95	88				91		95	98	
Raoultella ornithinolytica	154	0	77	94	15	98	95		97			100		97		99	98
Serratia marcescens	48	0	0	0	0	96	79		85			100		0		92	96

β Includes ESBL isolates

Δ ID restricted

Gram Positive Organisms	# Isolates	Ampicillin	Ampicillin-sulbactam	Gentamicin Synergy	Nitrofurantoin	Oxacillin	Tetracycline	Trimethoprim- sulfamethoxazole	Vancomycin	Daptomycin Δ	Linezolid Δ
ORGANISM											
<i>Staphylococcus aureus</i> (MSSA)	119	0	100		100	100	93	96	100	100	
<i>Staphylococcus aureus</i> (MRSA)	66	0	0		100	0	77	74	100	100	
<i>Staphylococcus</i> spp., coagulase negative	308	0	56		99	58	83	75	100		
<i>Enterococcus faecalis</i> §	836	99		89	99		21		92	98	99
<i>Enterococcus faecium</i> §	145	13		99	75		19		41	99	100

§ Includes VRE isolates

Δ ID restricted

Tetracycline results can be used to represent doxycycline results.

Oxacillin results can be used to represent nafcillin results.

Antibiogram Notes 2025

Antibiogram interpretation: The antibiogram is generated from data on patients of all ages, both inpatient and outpatient, within the Elliot Health System. The number associated with each organism and drug cross section indicates the percent of organism isolates that were susceptible to that drug. Higher percentages indicated better empiric coverage.

- **Intrinsic Resistance to Antibiotics.** The following organisms have an “intrinsic resistance” to the antibiotics described. Intrinsic resistance is defined as an innate or inherent antimicrobial resistance, as opposed to an acquired resistance.
 - *Citrobacter freundii*, *Klebsiella aerogenes*, *Enterobacter cloacae*, *Serratia marcescens*:
 - Ampicillin, Ampicillin-Sulbactam, Cefazolin, Cefoxitin
 - *Klebsiella pneumoniae*, *Klebsiella oxytoca*:
 - Ampicillin
 - *Morganella morganii*:
 - Ampicillin, Amoxicillin-Clavulanate, Cefazolin, Nitrofurantoin
 - *Proteus mirabilis*:
 - Nitrofurantoin
 - *Raoultella spp.*:
 - Ampicillin
- **Induced Resistance to Antibiotics.**
 - *Enterobacteriaceae* and AmpC β -lactamase: *Enterobacter cloacae*, *Klebsiella aerogenes*, and *Citrobacter freundii* are the Enterobacterales with moderate to high risk for clinically significant AmpC production.
 - Exposure to β -lactams can trigger AmpC production and β -lactam resistance, even if initially susceptible
 - Recommended to avoid third-generation cephalosporins even if susceptible in vitro
- **Systemic Infections**
 - *S. maltophilia* susceptibility for levofloxacin has increased to 97%, and Bactrim remains 100% susceptible
 - *E. faecium* is more often resistant to vancomycin (only 39% susceptible) and ampicillin (only 28% susceptible) than *E. faecalis* (of which only 5 % are resistant to vancomycin)
- **Urinary Tract Infections**
 - *E. coli* remains the most common pathogen at 64% isolates, 99% susceptible to nitrofurantoin
 - *E. faecalis* remains 99% susceptible to ampicillin and nitrofurantoin
 - *Proteus mirabilis* susceptibility for cefazolin has increased to 73%
 - MRSA susceptibility for Bactrim has increased 74%, and nitrofurantoin remains at 100% susceptible