

The following antibigrams are profiles of antimicrobial susceptibility testing results of pathogens submitted to LifeLabs in 2023-2024 (for respiratory tract pathogens) in 2024 (for skin and soft tissue and urinary tract pathogens) compiled as per Clinical and Laboratory Standards Institute (CLSI) document M39, 5th edition (2022). Results with fewer than 30 isolates are excluded to ensure representativeness and reliability of the susceptibility data.

Respiratory Tract Pathogens (Sputum)

ORGANISM	Number of isolates reported in 2023-2024	ANTIBIOTIC (% susceptible)														
		Ampicillin/ Amoxicillin	Azithromycin	Cephalothin / Cephalixin	Ceftriaxone	Ciprofloxacin	Clarithromycin	Erythromycin	Levofloxacin	Tetracycline ³	Penicillin (oral)	Cloxacillin	Trimethoprim-sulfa	Ceftazidime	Tobramycin	Piperacillin-tazobactam
<i>Haemophilus influenzae</i>	79	55	96		99	99				79	R	R	61			
<i>Moraxella catarrhalis</i> ¹	51															
<i>Streptococcus pneumoniae</i>	31	>95 ²	71		100		71	71	97	74	71		74			
<i>Staphylococcus aureus</i> (MSSA)	31			100				57				100	100			
<i>Pseudomonas aeruginosa</i>	50	R	R	R	R	88	R	R		R	R	R	R	98	99	98

¹ Susceptibility testing for *Moraxella catarrhalis* is not routinely performed. Most clinical isolates of *M. catarrhalis* are resistant to amoxicillin but susceptible to amoxicillin-clavulanate, macrolides, trimethoprim-sulfamethoxazole, quinolones, cefuroxime, cefixime, and ceftriaxone.

² Amoxicillin testing is not routinely performed on *Streptococcus pneumoniae*; however, 2019 testing of a subset of isolates showed >95% susceptibility.

³ Isolates that test susceptible to tetracycline are considered susceptible to doxycycline and minocycline.

Skin and Soft Tissue Pathogens

ORGANISM	Number of isolates reported in 2024	ANTIBIOTIC (% susceptible)													
		Ampicillin/Amoxicillin	Azithromycin	Ceftriaxone	Cephalothin / Cephalixin	Clarithromycin	Clindamycin	Cloxacillin	Erythromycin	Levofloxacin	Linezolid	Penicillin	Tetracycline ¹	Trimethoprim-Sulfa	Vancomycin
<i>S. aureus</i> (MSSA)	1814				100		88	100	81			97	99		
<i>S. aureus</i> (MRSA)	312	R		R	R		85	R	48		100	R	71	78	100
Group A Streptococcus ²	377	100	77	100	100	77	77		77			100		R	100

¹ Isolates that test susceptible to tetracycline are considered susceptible to doxycycline and minocycline; however, isolates that test intermediate or resistant to tetracycline do not always predict doxycycline or minocycline sensitivity.

² Group A *Streptococcus* is universally susceptible to penicillin, amoxicillin and cephalosporins, therefore antimicrobial susceptibility testing is not routinely performed. Antimicrobial susceptibility is tested on a subset of isolates.

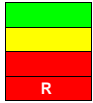
Urinary Tract Pathogens

	Number of isolates reported in 2024	ANTIBIOTIC (% susceptible)								
		Ampicillin/Amoxicillin	Cefazolin ¹ / oral cephalosporins	Ceftriaxone	Ciprofloxacin	Fosfomycin	Gentamicin	Nitrofurantoin	Tetracycline ³	Trimethoprim-Sulfa
<i>Escherichia coli</i>	5310	67	99	92	75	99	94	98	81	84
<i>Enterococcus faecalis</i>	1309	100			89	92		99	24	R
Group B <i>Streptococcus</i> ²	996									
<i>Klebsiella pneumoniae</i>	907	R	99	95	89		98	30	88	93
<i>Proteus mirabilis</i>	310	86	99	97	94		91	R	R	90

¹ The data does not represent all isolates because cefazolin was not tested when the resistance pattern suggested patterns of extended spectrum beta-lactamase. Susceptibility was determined using the CLSI breakpoint for uncomplicated cystitis, and therefore cannot be extrapolated to complicated urinary tract and systemic infections.

² Susceptibility testing is not routinely performed on urine isolates of Group B *Streptococcus* because such infections usually respond to antibiotics commonly used to treat uncomplicated urinary tract infections, such as ampicillin and cephalosporins. Susceptibility to nitrofurantoin and fluoroquinolones is variable.

³ Isolates that test susceptible to tetracycline are considered susceptible to doxycycline and minocycline; however, isolates that test intermediate or resistant to tetracycline do not always predict doxycycline or minocycline sensitivity.



- 90-100% of isolates are susceptible to the antibiotic indicated **(GOOD CHOICE)**
- 51-89% of isolates are susceptible to the antibiotic indicated **(INTERMEDIATE CHOICE)**
- 0-50% of isolates are susceptible to the antibiotic indicated **(POOR CHOICE)**
- The organism is inherently resistant to the antibiotic indicated **OR** is not recommended due to poor clinical response and/or poor activity