

The following antibiograms are profiles of antimicrobial susceptibility testing results of pathogens submitted to LifeLabs from January 1, 2020 to December 31, 2020 as per the Clinical and Laboratory Standards Institute (CLSI) document M39-A4.

Respiratory Tract Pathogens (Sputum)

ORGANISM	Number of isolates tested	ANTIBIOTIC (% susceptible)														
		Amoxicillin - Clavulanate	Ampicillin/ Amoxicillin	Azithromycin	Ceftriaxone	Ciprofloxacin	Clarithromycin	Erythromycin	Levofloxacin	Tetracycline	Penicillin (oral)	TMP-SMX	Ceftazidime	Gentamicin	Meropenem	Piperacillin-Tazobactam
<i>Haemophilus influenzae</i>	75	97	76		99	93				80	R	59				
<i>Moraxella catarrhalis</i> ¹	65		R								R					
<i>Pseudomonas aeruginosa</i>	57	R	R	R	R	75	R	R		R	R	R	93	91	95	95
<i>Streptococcus pneumoniae</i>	34		>95 ²	56	95		56	56	100	71	71	68				

¹Susceptibility 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.

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

Skin and Soft Tissue Pathogens

ORGANISM	Number of isolates tested	ANTIBIOTIC (% susceptible)													
		Ampicillin/ Amoxicillin	Azithromycin	Ceftriaxone	Cephalothin / Cephalixin	Clarithromycin	Clindamycin	Cloxacillin	Erythromycin	Levofloxacin	Linezolid	Penicillin	Tetracycline ¹	TMP-SMX	Vancomycin
<i>S. aureus</i> (MSSA)	5525				100		83	100	79				95	99	100
<i>S. aureus</i> (MRSA)	1477	R		R	R		77	R	38		100	R	71	93	100
Group A <i>Streptococcus</i> ²	216	100	85	100	100	85	85		85	97		100		R	100

¹Isolates susceptible to tetracycline are predictably susceptible to doxycycline; however, some isolates that are resistant to tetracycline may be susceptible to doxycycline.

²Group A *Streptococcus* is predictably susceptible to penicillin, amoxicillin and cephalosporins, therefore antimicrobial susceptibility testing is not routinely performed.

Urinary Tract Pathogens

ORGANISM	Number of isolates tested	ANTIBIOTIC (% susceptible)							
		Ampicillin/ Amoxicillin	Ceftriaxone	Ciprofloxacin	Fosfomycin ¹	Gentamicin	Nitrofurantoin	Tetracycline ²	TMP-SMX
<i>Escherichia coli</i>	24951	60	90	68 ⁴	99	93	96	77	78
Group B <i>Streptococcus</i> ³	4619					R			R
<i>Enterococcus faecalis</i>	4027	100		83	96		99	22	R
<i>Klebsiella pneumoniae</i>	3315	R	94	89 ⁴		98	28	88	93
<i>Proteus mirabilis</i>	1657	77	98	84 ⁴		93	R	R	81

¹Fosfomycin testing was performed on a limited number of *E. faecalis* (n=185) isolates.

²Isolates susceptible to tetracycline are predictably susceptible to doxycycline; however, some isolates that are resistant to tetracycline may be susceptible to doxycycline.

³Susceptibility 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, cephalosporins and nitrofurantoin. Susceptibility to fluoroquinolones is variable.

⁴Breakpoints for ciprofloxacin and *Enterobacterales* were updated in 2020 to reflect the CLSI M100. Values indicated represent a combination of test results using both old and new breakpoints.

	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)
R	The organism is inherently resistant to the antibiotic indicated OR is not recommended due to poor clinical response and/or poor activity
	Antimicrobial susceptibility testing not performed

TMP-SMX = Trimethoprim-Sulfa.; MSSA = Methicillin-susceptible *Staphylococcus aureus*; MRSA = Methicillin-resistant *Staphylococcus aureus*