

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>	66	96	57		100	100				71	R	67				
<i>Pseudomonas aeruginosa</i>	34	R	R	R	R	85	R	R		R	R	R	97	94	94	97
<i>Moraxella catarrhalis</i> ¹	29		R								R					
<i>Streptococcus pneumoniae</i> ²	23 ³		>95	78	96		78	78	100	83	91	96				

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 *S. pneumoniae* isolates showed >95% susceptibility.

³Less than 30 isolates were used for calculations so results should be interpreted with caution.

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)	1514				100		87	100	83				96	99	100
<i>S. aureus</i> (MRSA)	282	R		R	R		76	R	32		100	R	82	94	100
Group A <i>Streptococcus</i> ²	31	100	87	100	100	87	87		87	96		100		R	100

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

²Groups 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>	5985	66	93	76 ⁴	99	95	98	81	82
<i>Enterococcus faecalis</i>	1120	100		82	96		99	25	R
Group B <i>Streptococcus</i> ³	874					R			R
<i>Klebsiella pneumoniae</i>	744	R	97	92 ⁴		99	31	92	97

¹ Fosfomycin testing was performed on a limited number of isolates of *E. faecalis* (n = 47).

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

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

⁴ Breakpoints 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*