

The following antibiograms are profiles of antimicrobial susceptibility testing results of pathogens submitted to LifeLabs from January 1, 2019 to December 31, 2019 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	Tobramycin
<i>Haemophilus influenzae</i>	76	99	62		100	100				91	R	59					
<i>Moraxella catarrhalis</i> ¹	54		R								R						
<i>Pseudomonas aeruginosa</i>	44	R	R	R	R	88	R	R		R	R	R	95	93	100	100	94
<i>Streptococcus pneumoniae</i> ³	37		>95 ²	84	100		84	84	100	73	92	89					

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, testing of a subset of 49 isolates (including 18 oxacillin non-susceptible isolates) showed 100% 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)	2599				100		88	100	85				96	99	100
<i>S. aureus</i> (MRSA)	432	R		R	R		83	R	28		100	R	91	97	100
Group A <i>Streptococcus</i> ²	51	100	86	100	100	86	84		86	100		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, B, C and G streptococcal isolates are 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	Cephalothin / Cephalixin	Ciprofloxacin	Fosfomicin ¹	Gentamicin	Nitrofurantoin	Tetracycline ³	TMP-SMX
<i>Escherichia coli</i>	8705	65	94	51	87	99	94	98	81	81
<i>Enterococcus faecalis</i>	1283	100		R	84	100		99	23	R
Group B <i>Streptococcus</i> ³	1209						R			R
<i>Klebsiella pneumoniae</i>	992	R	98	98	97		98	34	91	95
<i>Staphylococcus saprophyticus</i> ⁴	690					R	R			
<i>Proteus mirabilis</i>	409	83	97	94	96		92	R	R	90

¹ Fosfomicin testing was performed on a limited number of isolates of *E. faecalis* (n = 41).

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 Susceptibility testing is not routinely performed on urine isolates of *Staphylococcus saprophyticus* because such infections usually respond to antibiotics commonly used to treat uncomplicated urinary tract infections, such as trimethoprim-sulfamethoxazole, nitrofurantoin, and fluoroquinolones.

	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*