

The following antibiograms are profiles of antimicrobial susceptibility testing results of pathogens submitted to LifeLabs from January 1, 2016 to December 31, 2016 as per the Clinical and Laboratory Standards Institute (CLSI) document M39-A4.

Respiratory Tract Pathogens

ORGANISM	Number of isolates	ANTIBIOTIC (% susceptible)																
		Amoxicillin - Clavulanate	Ampicillin ¹	Azithromycin	Ceftriaxone	Cefuroxime	Ciprofloxacin	Clarithromycin	Doxycycline	Erythromycin	Levofloxacin	Tetracycline	Penicillin (oral)	TMX	Ceftazidime	Gentamicin	Meropenem	Piperacillin-Tazobactam
<i>Haemophilus influenzae</i>	238	94	72		96		100				95	R	75					
<i>Pseudomonas aeruginosa</i>	200						82							88	80	93	89	98
<i>Moraxella catarrhalis</i> ²	138		R									R						
<i>Streptococcus pneumoniae</i>	112		99	51	99	99		51	28	51	100	99	87					

¹Results of ampicillin testing can be used to predict results for amoxicillin.

²Susceptibility testing for *Moraxella catarrhalis* is not routinely performed. Most clinical isolates of *M. catarrhalis* are resistant to amoxicillin but are generally susceptible to amoxicillin-clavulanate, macrolides, trimethoprim-sulfamethoxazole, quinolones, cefuroxime, cefixime, and ceftriaxone.

Skin and Soft Tissue Pathogens

ORGANISM	Number of isolates	ANTIBIOTIC (% susceptible)													
		Ampicillin	Azithromycin	Ceftriaxone	Cephalothin / Cephalixin	Clarithromycin	Clindamycin	Cloxacillin	Erythromycin	Levofloxacin	Linezolid	Penicillin	Tetracycline ¹	TMX	Vancomycin
<i>S. aureus</i> (MSSA)	8512				100		84	100	79				95	99	
<i>S. aureus</i> (MRSA)	2177	R		R	R		66	R	20		100	R	85	98	100
Group A <i>Streptococcus</i> ²	1425	100	71	100	100	71	71		71	100		100		R	100
Group B <i>Streptococcus</i> ²	1242	100	45	100	100	45	47		45	88		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.

²Susceptibility testing was performed for a small subset of isolates as per physician request: Group B *Streptococcus* (n=67) and Group A *Streptococcus* (n=119). Groups 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	ANTIBIOTIC (% susceptible)								
		Ampicillin ¹	Ceftriaxone	Cephalothin / Cephalixin	Ciprofloxacin	Fosfomycin ²	Gentamicin	Nitrofurantoin	Tetracycline ³	TMX
<i>Escherichia coli</i>	47900	58	90	57	80	95	91	97	73	77
Group B <i>Streptococcus</i> ⁴	6231						R			R
<i>Klebsiella pneumoniae</i>	5575	R	95	91	96		98	44	86	91
<i>Enterococcus faecalis</i>	2959	100		R	79	91		99	21	R
<i>Proteus mirabilis</i>	2836	77	96	86	83		93	R	R	77

¹ Results of ampicillin testing can be used to predict results for amoxicillin.

²Fosfomycin testing was performed on a limited number of *E. coli* (n=2481) and *E. faecalis* (n=89) isolates.

³Isolates susceptible to tetracycline are predictably susceptible to doxycycline; however, some isolates that are resistant to tetracycline may be susceptible to doxycycline.

⁴Antimicrobial 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.

	90-100% of isolates are susceptible to the antibiotic indicated (GOOD CHOICE)
	21-89% of isolates are susceptible to the antibiotic indicated (INTERMEDIATE CHOICE)
	0-20% 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

TMX = Trimethoprim-Sulfa; **MSSA** = Methicillin-susceptible *Staphylococcus aureus*; **MRSA** = Methicillin-resistant *Staphylococcus aureus*