

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 <sup>1</sup>	Azithromycin	Ceftriaxone	Cefuroxime	Ciprofloxacin	Clarithromycin	Doxycycline	Erythromycin	Levofloxacin	Tetracycline	Penicillin (oral)	TMX	Ceftazidime	Gentamicin	Meropenem	Piperacillin-Tazobactam
<i>Haemophilus influenzae</i>	102	99	78		100		100				94	R	61					
<i>Moraxella catarrhalis</i> <sup>2</sup>	49		R									R						
<i>Pseudomonas aeruginosa</i>	50						85							96	91	98	98	98
<i>Streptococcus pneumoniae</i>	23 <sup>3</sup>		100	57	100	100		57	52	57	100		100	87				

<sup>1</sup>Results of ampicillin testing can be used to predict results for amoxicillin.

<sup>2</sup>Susceptibility 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.

<sup>3</sup>Calculations performed using fewer than the CLSI recommendation of 30 isolates. May not be statistically reliable for comparison with other years or locations.

## Skin and Soft Tissue Pathogens

ORGANISM	Number of isolates	ANTIBIOTIC (% susceptible)													
		Ampicillin	Azithromycin	Ceftriaxone	Cephalothin / Cephalixin	Clarithromycin	Clindamycin	Cloxacillin	Erythromycin	Levofloxacin	Linezolid	Penicillin	Tetracycline <sup>1</sup>	TMX	Vancomycin
<i>S. aureus</i> (MSSA)	2965				100		88	100	84			97	97		
<i>S. aureus</i> (MRSA)	427	R		R	R		84	R	22		100	R	96	96	100
Group A <i>Streptococcus</i> <sup>2</sup>	458	100	94	100	100	94	94		94	100		100		R	100

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

<sup>2</sup>Susceptibility testing was performed for a small subset of isolates as per physician request: Group A *Streptococcus* (n=32). 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 <sup>1</sup>	Ceftriaxone	Cephalothin / Cephalixin	Ciprofloxacin	Fosfomicin <sup>2</sup>	Gentamicin	Nitrofurantoin	Tetracycline <sup>3</sup>	TMX
<i>Escherichia coli</i>	13705	63	94	57	84	94	93	97	78	81
<i>Klebsiella pneumoniae</i>	1596	R	97	93	96		98	52	87	93
Group B <i>Streptococcus</i> <sup>4</sup>	1355						R			R
<i>Enterococcus faecalis</i>	1460	100		R	83			99	24	R
<i>Proteus mirabilis</i>	546	87	96	93	94		92	R	R	89

<sup>1</sup> Results of ampicillin testing can be used to predict results for amoxicillin.

<sup>2</sup> Fosfomicin testing was performed on a limited number of *E. coli* (n=475) isolates.

<sup>3</sup> Isolates susceptible to tetracycline are predictably susceptible to doxycycline; however, some isolates resistant to tetracycline may be susceptible to doxycycline.

<sup>4</sup>Antimicrobial susceptibility testing is not routinely performed on urine isolates of *Streptococcus* group B 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 ( <b>GOOD CHOICE</b> )
	21-89% of isolates are susceptible to the antibiotic indicated ( <b>INTERMEDIATE CHOICE</b> )
	0-20% of isolates are susceptible to the antibiotic indicated ( <b>POOR CHOICE</b> )
R	The organism is inherently resistant to the antibiotic indicated <b>OR</b> 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*