

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> | 207 | 99 | 73 | | 99 | 100 | | | | 95 | R | 68 | | | | | |
| <i>Moraxella catarrhalis</i> ¹ | 125 | | R | | | | | | | | R | | | | | | |
| <i>Pseudomonas aeruginosa</i> | 114 | R | R | R | R | 77 | R | R | | R | R | R | 96 | 90 | 96 | 98 | 94 |
| <i>Streptococcus pneumoniae</i> | 86 | | >95 ² | 59 | 99 | | 59 | 59 | 100 | 62 | 77 | 84 | | | | | |

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) | 8630 | | | | 100 | | 83 | 100 | 78 | | | | 95 | 99 | 100 |
| <i>S. aureus</i> (MRSA) | 2039 | R | | R | R | | 73 | R | 33 | | 100 | R | 78 | 92 | 100 |
| Group A Streptococcus ² | 237 | 100 | 76 | 100 | 100 | 76 | 76 | | 78 | 99 | | 100 | | R | 100 |
| Group B Streptococcus ² | 77 | 100 | 49 | 100 | 100 | 49 | 44 | | 49 | 92 | | 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.

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 | Fosfomycin ¹ | Gentamicin | Nitrofurantoin | Tetracycline ² | TMP-SMX |
| <i>Escherichia coli</i> | 36330 | 59 | 91 | 51 | 81 | 99 | 93 | 97 | 76 | 78 |
| Group B Streptococcus ³ | 5700 | | | | | | R | | | R |
| <i>Enterococcus faecalis</i> | 5154 | 100 | | R | 82 | 98 | | 99 | 23 | R |
| <i>Klebsiella pneumoniae</i> | 4260 | R | 95 | 91 | 95 | | 98 | 34 | 88 | 93 |
| <i>Proteus mirabilis</i> | 2129 | 78 | 97 | 92 | 87 | | 92 | R | R | 80 |

¹Fosfomycin testing was performed on a limited number of *E. faecalis* (n=236) 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.

- 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*