



ALBERTA PRECISION LABORATORIES

Leaders in Laboratory Medicine

Antibiotic % Susceptibility Patterns: Urine - Males > 40 years
Emergency and Community Patients
January - December 2022

Data derived from routine susceptibility tests performed by Alberta Precision Laboratories

| N | Ampicillin / Amoxicillin | Cloxacillin | Amoxicillin-Clavulanate | Piperacillin-Tazobactam | Cephalexin | Cefazolin | Cefixime | Ceftriaxone | Ceftazidime | Trimethoprim-sulfamethoxazole | Vancomycin | Tetracycline ^c | Doxycycline | Nitrofurantoin | Fosfomycin (PO) | Ciprofloxacin | Gentamicin | Tobramycin | Ertapenem | Meropenem |
|--|--------------------------|-------------|-------------------------|-------------------------|------------|-----------|----------|-------------|-------------|-------------------------------|------------|---------------------------|-------------|----------------|-----------------|---------------|------------|------------|-----------|-----------|
| Gram-positive | | | | | | | | | | | | | | | | | | | | |
| Enterococcus faecalis | 897 | 100 | | | R | R | R | R | R | R | 100 | 22 | | 99 | | 88 | | | | |
| Enterococcus faecium ^d | 66 | 32 | | | R | R | R | R | R | R | 86 | 29 | | 21 | | 23 | | | | |
| Staphylococcus aureus ^a | All | 188 | 91 | | | 91 | | | | | 100 | | | | | | | | | |
| | MSSA | 173 | 100 | | | 100 | | | | | 100 | | | | | | | | | |
| Gram-negative | | | | | | | | | | | | | | | | | | | | |
| Citrobacter freundii complex ^b | 55 | R | | R | R | R | | | | 75 | | | | 93 | | 72 | 91 | 91 | 98 | 98 |
| Citrobacter koseri | 75 | R | | 97 | 99 | 99 | 100 | 100 | | 100 | | | | 93 | | 96 | 100 | 100 | | |
| Enterobacter cloacae complex ^b | 134 | R | | R | | R | | | | 87 | | | | 33 | | 87 | 96 | 98 | 99 | 100 |
| Escherichia coli | All | 1678 | 53 | 83 | 84 | 82 | 79 | 83 | 84 | | 77 | | | 98 | | 62 | 89 | 88 | | |
| | ESBL | 244 | R | | | R | R | R | R | 49 | | | 49 | 91 | 98 | 5 | 66 | 55 | 100 | 100 |
| Klebsiella (Enterobacter) aerogenes ^b | 42 | R | | R | | R | R | | | 100 | | | | 29 | | 90 | 100 | 100 | 98 | 100 |
| Klebsiella oxytoca | 165 | R | | 92 | 93 | 87 | 53 | 99 | 93 | | 98 | | | 90 | | 96 | 99 | 99 | | |
| Klebsiella pneumoniae complex | All | 375 | R | 93 | 93 | 92 | 91 | 92 | 93 | | 89 | | | 36 | | 81 | 97 | 96 | | |
| | ESBL ^d | 36 | R | | | R | R | R | R | 20 | | | 36 | 6 | | 14 | 50 | 44 | 94 | 97 |
| Morganella morganii ^b | 66 | R | | R | | R | R | | | 74 | | | | R | | 65 | 85 | 89 | 100 | 100 |
| Proteus mirabilis | 169 | 79 | | 98 | 98 | 98 | 75 | 98 | 98 | | 78 | | R | R | | 80 | 93 | 92 | | |
| Pseudomonas aeruginosa | 175 | R | | R | 95 | | | R | R | 97 | R | | R | R | | 84 | | 97 | R | 89 |
| Serratia marcescens ^b | 41 | R | | R | | R | R | | | | 98 | | | R | | 90 | 100 | 98 | 100 | 100 |

^a Staphylococcus aureus bacteriuria may be associated with blood stream or other systemic infection. Clinical correlation required.

^b These organisms usually produce β -lactamase which can cause failure of 3rd generation cephalosporin therapy, despite in vitro susceptibility

^c Susceptibility to doxycycline can be inferred from susceptibility to tetracycline

^d Combined data (January - December 2021 and January - December 2022) due to the small number of isolates in 2022

Note: Percent susceptible for each organism/antimicrobial combination was generated by including the first isolate of that organism recovered from a given patient during the time period analyzed.

Abbreviations: MSSA - methicillin-susceptible Staphylococcus aureus; ESBL - extended spectrum beta-lactamase; R - intrinsic resistance