

**Antibiotic % Susceptibility Patterns: Urine - < 16 years  
Emergency and Community Patients  
January - December 2019**

Data derived from routine susceptibility tests performed by Alberta Precision Laboratories

|                          |  | n    | Ampicillin / Amoxicillin | Cloxacillin | Amoxicillin-Clavulanate (PO) | Piperacillin-Tazobactam | Cephalexin (urine) | Cefazolin | Ceftriaxone | Ceftazidime | Trimethoprim-Sulfamethoxazole | Vancomycin | Tetracycline <sup>b</sup> | Nitrofurantoin | Fosfomycin | Ciprofloxacin <sup>a,d</sup> | Gentamicin | Tobramycin | Ertapenem | Meropenem |     |
|--------------------------|--|------|--------------------------|-------------|------------------------------|-------------------------|--------------------|-----------|-------------|-------------|-------------------------------|------------|---------------------------|----------------|------------|------------------------------|------------|------------|-----------|-----------|-----|
| GP                       | <i>Enterococcus faecalis</i>                     | 306  | 100                      |             |                              |                         | R                  | R         | R           | R           | R                             | 100        | 27                        | 98             |            | 95                           |            |            |           |           |     |
| GN                       | <i>Enterobacter cloacae</i> complex <sup>c</sup> | 41   | R                        |             | R                            |                         | R                  | R         |             |             | 95                            |            |                           | 39             |            | 98                           | 100        | 98         | 100       | 100       |     |
|                          | <i>Escherichia coli</i>                          | All  | 1680                     | 54          | 86                           | 92                      | 91                 | 87        | 92          |             | 75                            |            |                           | 98             |            | 78                           | 94         | 95         |           |           |     |
|                          |  | ESBL | 117                      | R           |                              |                         |                    | R         | R           | R           |                               | 42         |                           |                | 95         | 98                           | 12         | 66         | 62        | 100       | 100 |
|                          | <i>Klebsiella oxytoca</i>                        | 40   | R                        |             | 95                           | 98                      | 85                 | 53        | 95          |             | 93                            |            |                           | 88             |            | 93                           | 95         | 95         |           |           |     |
|                          | <i>Klebsiella pneumoniae</i> complex             | 83   | R                        |             | 90                           | 90                      | 95                 | 90        | 95          |             | 92                            |            |                           | 48             |            | 93                           | 96         | 98         |           |           |     |
| <i>Proteus mirabilis</i> | 108  | 86   |                          | 100         | 100                          | 97                      | 88                 | 98        |             | 83          |                               |            | R                         | R              |            | 90                           | 93         | 93         |           |           |     |

<sup>a</sup> Not routinely used in Paediatrics

<sup>b</sup> Susceptibility to doxycycline can be inferred from susceptibility to tetracycline

<sup>c</sup> These organisms usually produce inducible  $\beta$ -lactamase which can cause failure of 3rd generation  $\beta$ -lactam therapy, despite in vitro susceptibility

<sup>d</sup> Revised (2019) CLSI Enterobacterales interpretive criteria for susceptible are being used for the first time to calculate %S; these are  $\leq 0.25$   $\mu\text{g/mL}$  and  $\geq 26$  mm for ciprofloxacin. Previous CLSI interpretive criteria for susceptible were  $\leq 1$   $\mu\text{g/mL}$  and  $\geq 21$  mm

**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

**ABBREVIATIONS:** GP - Gram-positive; GN - Gram-negative; ESBL - extended spectrum beta-lactamase; R - intrinsic resistance