


## Antibiotic Susceptibility of Common Organisms

### 2022 STHS Freestanding Emergency Departments

Numbers indicate percent susceptible; only the first isolate per patient per period is included

|  |                                      | # of isolates | Beta-Lactams |                         |                      |                         |                        |             |          | FQ        | AGs           |          |            | Miscellaneous |             |                           |                   |            | # of isolates | Urine Isolates Only |                                   |                             |               |            |                   |
|---|--------------------------------------|---------------|--------------|-------------------------|----------------------|-------------------------|------------------------|-------------|----------|-----------|---------------|----------|------------|---------------|-------------|---------------------------|-------------------|------------|---------------|---------------------|-----------------------------------|-----------------------------|---------------|------------|-------------------|
|   |                                      |               | Oxacillin    | Ampicillin <sup>1</sup> | Ampicillin/Sulbactam | Piperacillin/Tazobactam | Cefazolin <sup>2</sup> | Ceftriaxone | Cefepime | Meropenem | Ciprofloxacin | Amikacin | Gentamicin | Tobramycin    | Clindamycin | Tetracycline <sup>4</sup> | TMP/SMX (Bactrim) | Vancomycin |               | Linezolid           | 1st Gen. Ceph (oral) <sup>5</sup> | Nitrofurantoin <sup>9</sup> | Ciprofloxacin | Ampicillin | TMP/SMX (Bactrim) |
| Gram Negative   | Citrobacter koseri                   | 31            | -            | -                       | -                    | 100                     | 87                     | 87          | 94       | 100       | 94            | 100      | 94         | 97            | -           | -                         | 87                | -          | -             | 28                  | -                                 | 93                          | 93            | -          | 86                |
|   | Enterobacter cloacae <sup>5</sup>    | 44            | -            | -                       | -                    | 89                      | -                      | -           | 95       | 95        | 100           | 100      | 95         | 93            | -           | -                         | 91                | -          | -             | 35                  | -                                 | 46                          | 100           | -          | 89                |
|   | Escherichia coli                     | 2352          | -            | 41                      | 55                   | 96                      | 85                     | 86          | 86       | 100       | 78            | 100      | 85         | 83            | -           | -                         | 59                | -          | -             | 2256                | 85                                | 98                          | 78            | 41         | 60                |
|   | Klebsiella aerogenes <sup>6</sup>    | 38            | -            | -                       | -                    | 95                      | -                      | -           | 100      | 100       | 100           | 100      | 100        | 100           | -           | -                         | 97                | -          | -             | 34                  | -                                 | 26                          | 100           | -          | 97                |
|   | Klebsiella pneumoniae                | 336           | -            | 0                       | 77                   | 95                      | 86                     | 87          | 87       | 100       | 94            | 100      | 83         | 92            | -           | -                         | 84                | -          | -             | 316                 | 86                                | 29                          | 93            | 0          | 85                |
|   | Proteus mirabilis                    | 253           | -            | 68                      | 84                   | 99                      | 96                     | 98          | 100      | 100       | 92            | 100      | 88         | 88            | -           | -                         | 85                | -          | -             | 222                 | 95                                | 0                           | 92            | 67         | 84                |
|   | Pseudomonas aeruginosa               | 55            | -            | -                       | -                    | 96                      | -                      | -           | 95       | 96        | 91            | 98       | 96         | 98            | -           | -                         | -                 | -          | -             | 41                  | -                                 | -                           | 93            | -          | -                 |
| Gram Positive   | Staphylococcus aureus <sup>7,8</sup> | 208           | 60           | -                       | -                    | -                       | -                      | -           | -        | -         | -             | 93       | -          | 74            | 97          | 95                        | 100               | 100        | 30            | 77                  | 100                               | -                           | -             | 100        |                   |
|   | Staphylococcus epidermidis           | 50            | 39           | -                       | -                    | -                       | -                      | -           | -        | -         | -             | 86       | -          | 54            | 86          | 88                        | 100               | 100        | -             | -                   | -                                 | -                           | -             | -          |                   |
|   | Staphylococcus hominis               | 36            | 44           | -                       | -                    | -                       | -                      | -           | -        | -         | -             | 92       | -          | 58            | 72          | 81                        | 100               | 100        | -             | -                   | -                                 | -                           | -             | -          |                   |
|   | Staphylococcus saprophyticus         | 45            | 60           | -                       | -                    | -                       | -                      | -           | -        | -         | -             | 98       | -          | 71            | 93          | 93                        | 100               | 100        | 42            | 57                  | 100                               | -                           | -             | 95         |                   |
|   | Enterococcus faecalis                | 146           | -            | 100                     | -                    | -                       | -                      | -           | -        | -         | -             | -        | -          | -             | 30          | -                         | 99                | 99         | 125           | -                   | 98                                | 91                          | 100           | -          |                   |

Resistance: 40% MRSA, 1% VRE, 14% ESBL

<sup>1</sup> Ampicillin susceptibility indicates susceptibility to amoxicillin, amoxicillin-clavulanate, ampicillin-sulbactam, and piperacillin-tazobactam

<sup>2</sup> When used for therapy of uncomplicated UTIs due to E. coli, K. pneumoniae, and P. mirabilis, cefazolin susceptibility indicates susceptibility to the oral agents cefaclor, cefdinir, cefpodoxime, cefprozil, cefuroxime axetil, and cephalexin

<sup>3</sup> Aztreonam use is reserved for severe penicillin allergy (e.g. anaphylaxis); caution: may cross-react with ceftazidime allergy

<sup>4</sup> Tetracycline susceptibility indicates susceptibility to doxycycline and minocycline; some organisms resistant to tetracycline may be susceptible to doxycycline or minocycline

<sup>5</sup> Use of 3rd generation cephalosporins is not recommended; these organisms frequently become resistant during therapy

<sup>6</sup> Formerly known as Enterobacter aerogenes

<sup>7</sup> Oxacillin and cefazolin are considered first-line antibiotic therapies for MSSA

<sup>8</sup> For staphylococci that test susceptible, aminoglycosides must be used in combination with beta-lactams or vancomycin for synergy

<sup>9</sup> Nitrofurantoin is indicated for use in cystitis only; it should not be used for systemic infections, including pyelonephritis