

Table S1. MIC interpretative breakpoints used in this analysis to categorize isolates into susceptible, intermediate, and resistant *E. coli*

| Antimicrobial | Class | Susceptible | Intermediate | Resistant | Source |
|--|---|-------------|--------------|-----------|------------------------------|
| Amikacin | Aminoglycoside | ≤ 4 | 8 | ≥ 16 | CLSI VET01S ED6:2023 (cats) |
| Amoxicillin/clavulanic acid (non-UTI) | Penicillins + β -lactamase inhibitors | ≤ 0.25 | 0.5 | ≥ 1 | CLSI VET01S ED6:2023 (cats) |
| Amoxicillin/clavulanic acid (UTI) | Penicillins + β -lactamase inhibitors | ≤8 | | | CLSI VET01S ED6:2023 (cats) |
| Ampicillin (non-UTI) | Penicillins | ≤ 0.25 | 0.5 | ≥ 1.0 | CLSI VET01S ED6:2023 (cats) |
| Ampicillin (UTI) | Penicillins | ≤8 | | | CLSI VET01S ED6:2023 (cats) |
| Cefazolin | 1st and 2nd generation cephalosporins | ≤ 2 | 4 | ≥ 8 | CLSI VET01S ED6:2023 (dogs) |
| Cefovecin | 3rd and 4th generation cephalosporins | ≤ 2 | 4 | ≥ 8 | CLSI VET01S ED6:2023 (cats) |
| Cefpodoxime | 3rd and 4th generation cephalosporins | ≤ 2 | 4 | ≥ 8 | CLSI VET01S ED6:2023 (dogs) |
| Ceftazidime | 3rd and 4 th generation cephalosporins | ≤ 4 | 8 | ≥ 16 | CLSI VET01S ED6:2023 (dogs) |
| Ceftiofur | 3rd and 4 th generation cephalosporins | ≤ 2 | 4 | ≥ 8 | CLSI VET01S ED6:2023 (swine) |
| Cephalexin (non-UTI) | 1st and 2nd generation cephalosporins | ≤ 2 | 4 | ≥ 8 | CLSI VET01S ED6:2023 (dogs) |
| Cephalexin (UTI) | 1st and 2nd generation cephalosporins | ≤16 | | ≥32 | CLSI VET01S ED6:2023 (dogs) |
| Chloramphenicol | Phenicols | ≤ 8 | 16 | ≥ 32 | CLSI M100 ED33:2023 (humans) |
| Doxycycline | Tetracyclines | ≤0.12 | 0.25 | ≥ 0.5 | CLSI M100 ED33:2023 (humans) |
| Enrofloxacin | Fluoroquinolones | ≤ 0.5 | 1 to 2 | ≥4 | CLSI VET01S ED6:2023 (cats) |
| Gentamicin | Aminoglycoside | ≤ 2 | 4 | ≥ 8 | CLSI VET01S ED6:2023 (dogs) |
| Imipenem | Carbapenems | ≤1 | 2 | ≥4 | CLSI M100 ED33:2023 (humans) |
| Marbofloxacin | Fluoroquinolones | ≤1 | 2 | ≥4 | CLSI VET01S ED6:2023 (cats) |
| Orbifloxacin | Fluoroquinolones | ≤1 | 2 | ≥4 | CLSI VET01S ED6:2023 (cats) |
| Piperacillin/Tazobactam | Penicillins + β -lactamase inhibitors | ≤ 8 | 16 | ≥ 32 | CLSI VET01S ED6:2023 (dogs) |
| Pradofloxacin | Fluoroquinolones | ≤ 0.25 | 0.5 to 1 | ≥2 | CLSI VET01S ED6:2023 (cats) |
| Tetracycline | Tetracyclines | ≤ 4 | 8 | ≥ 16 | CLSI M100 ED33:2023 (humans) |
| Trimethoprim/Sulfamethoxazole | Folate pathway inhibitors | 2 | NA | 4 | CLSI M100 ED33:2023 (humans) |

UTI: Urinary tract isolates. CLSI: Clinical & Laboratory Standards Institute