

Antibiogram

St. Thomas-Elgin General Hospital

A Guide to Interpreting the Antibiogram

- The antibiogram is an annual cumulative report of the antimicrobial susceptibility rates of common pathogens recovered from patients receiving care at St. Thomas-Elgin General Hospital and is to be used as a resource to inform empirical antimicrobial therapy.
- Susceptibility rates are calculated from the compilation of susceptibility results from all 'first' clinical isolates of a specific pathogen recovered from an individual patient per 30-day period. The rationale for this referral period is based on the need to represent 'wild-type' susceptibility profiles and avoid over-representing antimicrobial resistance that may develop de novo during a patient's prolonged hospital stay.
- Susceptibility rates for pathogens or clinical scenarios represented by less than 30 isolates are not calculated due to their limited statistical significance and interpretive value.
- The appropriateness of empiric therapy is highlighted using a colour range that corresponds to susceptibility rates. Green, 80-100%; Yellow, 70-79%; Red, <70%.

2020 Antibiogram

St. Thomas-Elgin General Hospital

| Organism | Number of Isolates | Ampicillin | Amoxicillin-Clavulanate | Piperacillin-Tazobactam | Cloxacillin | Cephalixin (urinary tract) | Cefazolin | Ceftriaxone | Ceftazidime | Imipenem | Meropenem | Ciprofloxacin | Clindamycin | Doxycycline | Gentamicin | Tobramycin | TMP-SMX | Vancomycin |
|---|--------------------|------------|-------------------------|-------------------------|-------------|----------------------------|-----------|-------------|-------------|----------|-----------|---------------|-------------|-------------|------------|------------|---------|------------|
| <i>Escherichia coli</i> | 683 | 62 | 89 | | | 91 | 80 | 91 | | 100 | | 82 | | | 94 | 94 | 83 | |
| <i>Klebsiella pneumoniae</i> complex | 103 | | 97 | | | 94 | 87 | 94 | | 98 | | 91 | | | 98 | 97 | 87 | |
| <i>Proteus mirabilis</i> | 57 | 86 | 96 | | | | | 98 | | | 100 | 88 | | | 96 | 96 | 89 | |
| <i>Enterobacter cloacae</i> complex | 48 | | | | | | | 60 | | 100 | | 92 | | | 96 | 92 | 85 | |
| <i>Klebsiella oxytoca</i> | 39 | | 92 | | | | | 92 | | 97 | | 95 | | | 92 | 95 | 90 | |
| <i>Pseudomonas aeruginosa</i> | 76 | | | 96 | | | | | 97 | 86 | 97 | 93 | | | 99 | 99 | | |
| <i>Staphylococcus aureus</i> (incl. MRSA) | 256 | | | | 60 | | | | | | | | 84 | 100 | | | 99 | 100 |
| MRSA | 103 | | | | 0 | | | | | | | | 93 | 100 | | | 99 | 100 |

Enterobacter, *Citrobacter*, *Klebsiella aerogenes* and *Serratia* species are intrinsically resistant to ampicillin, cefazolin, and cefuroxime and may develop resistance to broader-spectrum beta-lactams during prolonged beta-lactam therapy.