

NORTH SHORE UNIVERSITY HOSPITAL

2022 Antibiogram

Gram Negative Organisms

| Organism | # Isolates | Resistance Rates (%) | | Beta-Lactams | | | | | | | | | | Beta-Lactam Combination Agents | | Quinolones | | Aminoglycosides | | | Others | | | |
|--|------------|----------------------|-----------|--------------|-----------|-------------|-------------|----------|-----------|-----------|-----------|----------|-----------|--------------------------------|---------------------------|---------------|--------------|-----------------|------------|------------|-------------|-------------|-------------------------------|-----------------------------|
| | | CRO rate | ESBL rate | Ampicillin | Cefazolin | Ceftazidime | Ceftriaxone | Cefepime | Cefoxitin | Aztreonam | Ertapenem | Imipenem | Meropenem | Ampicillin / Sulbactam | Piperacillin / Tazobactam | Ciprofloxacin | Levofloxacin | Amikacin | Gentamicin | Tobramycin | Tigecycline | Minocycline | Trimethoprim-Sulfamethoxazole | Nitrofurantoin (urine only) |
| <i>Acinetobacter baumannii/nosocomialis group</i> | 44 | 25% | | IR | | 80 | | 60 | | IR | IR | 73 | 68 | 82 | | 59 | 65 | 85 | 67 | 77 | | | 71 | |
| <i>Citrobacter freundii</i> | 66 | 2% | | IR | IR | | 74 | 100 | IR | 82 | 98 | 98 | 98 | IR | 89** | 89 | 95 | 100 | 98 | 95 | 100 | | 88 | 100 |
| <i>Citrobacter koseri</i> | 72 | 0% | | IR | 96 | | 97 | 99 | 96 | 97 | 100 | 100 | 100 | 99 | 100** | 97 | 97 | 100 | 99 | 99 | 99 | | 100 | 81 |
| <i>Enterobacter cloacae complex</i> | 198 | 4% | | IR | IR | | 67 | 92 | IR | 75 | 90 | 94 | 97 | IR | 77** | 85 | 94 | 98 | 97 | 95 | 99 | | 83 | 48 |
| <i>Escherichia coli</i> | 2995 | 0.3% | 16% | 44 | 76 | | 82 | 83 | 96 | 83 | 100 | 100 | 100 | 58 | 93** | 65 | 69 | 99 | 87 | 87 | 100 | | 68 | 97 |
| <i>Klebsiella aerogenes</i> | 83 | 5% | | IR | IR | | 71 | 92 | IR | 84 | 95 | 81 | 95 | IR | 83** | 94 | 98 | 100 | 95 | 95 | 98 | | 96 | 39 |
| <i>Klebsiella oxytoca/Raoultella ornitholytica</i> | 141 | 0% | 1% | IR | 25 | | 87 | 94 | 97 | 88 | 100 | 99 | 100 | 84 | 94** | 89 | 96 | 100 | 96 | 93 | 99 | | 89 | 93 |
| <i>Klebsiella pneumoniae</i> | 846 | 4% | 16% | IR | 76 | | 80 | 81 | 92 | 81 | 96 | 97 | 97 | 68 | 87** | 76 | 85 | 99 | 92 | 89 | 98 | | 77 | 57 |
| <i>Klebsiella variicola</i> | 80 | 0% | | IR | 81 | | 89 | 90 | 96 | 89 | 96 | 98 | 96 | 86 | 94** | 90 | 94 | 100 | 94 | 95 | 100 | | 85 | 75 |
| <i>Morganella morganii</i> | 93 | 0% | | IR | IR | | 91 | 99 | 91 | 91 | 100 | | 100 | 11 | 99** | 72 | 73 | 100 | 95 | 96 | IR | | 75 | IR |
| <i>Proteus mirabilis</i> | 531 | 0.2% | 15% | 66 | 79 | | 84 | 85 | 99 | 85 | 100 | | 100 | 85 | 95** | 72 | 73 | 100 | 89 | 89 | IR | IR | 76 | IR |
| <i>Pseudomonas aeruginosa</i> | 826 | 16% | | IR | | 89 | IR | 88 | | 78 | IR | 81 | 87 | IR | 87 | 82 | 78 | 97 | 87 | 96 | IR | | IR | |
| <i>Serratia marcescens</i> | 131 | 0% | | IR | IR | | 78 | 100 | IR | 87 | 100 | | 100 | IR | 92** | 91 | 95 | 100 | 99 | 93 | 99 | | 98 | IR |
| <i>Stenotrophomonas maltophilia</i> | 95 | | | IR | | | IR | | | IR | IR | IR | IR | IR | IR | | 96 | IR | IR | IR | | 97*** | 99 | |

Notes:

This antibiogram was generated using guidelines established by the Clinical and Laboratory Standards Institute (CLSI) in document CLSI M39-Ed5 2022. Only the first isolate of a given organism per patient per year is included.

Values in each cell represent the percentage of isolates susceptible to the listed antibiotic. Grey cells indicate antibiotics which are not routinely tested or reported by the microbiology laboratory.

CRO = Carbapenem Resistant Organism (does not include intermediate isolates); ESBL = Extended Spectrum Beta-Lactamase producing organism; IR = Intrinsic Resistance

*Fewer than 30 isolates will not accurately reflect the true susceptibility pattern of an organism. Please use discretion when interpreting these data.

**Percent susceptible includes isolates interpreted as Susceptible Dose Dependent (SDD).

***Minocycline susceptibility results were calculated from 36 isolates.

Prepared by: Northwell Health Clinical Microbiology Laboratory

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2022 Antibiogram

Gram Positive Organisms

| Organism | # Isolates | Resistance Rates (%) | | Beta-Lactams | | | | | | | | | | Macrolides/ Tetracyclines | | | Quinolones | | Others | | | | | HIGH-LEVEL RESISTANCE SCREENS | |
|---|------------|----------------------|----------|--------------|-------------------------|-----------------------------|-------------------|------------|-----------|-----------|-------------|--------------------------|------------------------------|---------------------------|--------------|--------------|---------------|--------------|-------------------------------|-----------------------------|------------|-----------------|-----------|-------------------------------|--------------|
| | | MRSA Rate | VRE Rate | Penicillin | Penicillin (meningitis) | Penicillin (non-meningitis) | Penicillin (oral) | Ampicillin | Oxacillin | Cefazolin | Ceftriaxone | Ceftriaxone (meningitis) | Ceftriaxone (non-meningitis) | Clindamycin | Erythromycin | Tetracycline | Ciprofloxacin | Levofloxacin | Trimethoprim-sulfamethoxazole | Nitrofurantoin (urine only) | Vancomycin | Daptomycin | Linezolid | Gentamicin | Streptomycin |
| <i>Coagulase Negative Staphylococci</i> | 360 | | | | | | | | 43 | 42 | | | | 53 | 32 | 79 | 63 | | 61 | | 100 | 100 | 100 | | |
| <i>Staphylococcus lugdunensis</i> | 55 | | | | | | | | 82 | 82 | | | | 68 | 70 | 85 | 98 | | 100 | | 100 | 100 | 100 | | |
| <i>Staphylococcus epidermidis</i> | 204 | | | | | | | | 29 | 29 | | | | 47 | 21 | 82 | 52 | | 46 | | 100 | 100 | 100 | | |
| <i>Staphylococcus aureus</i> | 874 | 36 | | | | | | | 63 | 63 | | | | 71 | 46 | 89 | 63 | | 96 | 100 | 100 | 100 | 100 | | |
| <i>Enterococcus faecalis</i> | 1202 | | 5 | | | | | 100 | | IR | IR | IR | IR | IR | | 22 | 76 | 79 | IR | 100 | 95 | 100 | 100 | 76 | 84 |
| <i>Enterococcus faecium</i> | 373 | | 57 | | | | | 11 | | IR | IR | IR | IR | IR | | 30 | 9 | 10 | IR | 52 | 41 | 85 [§] | 99 | 66 | 59 |
| <i>Streptococci (Viridans Group)</i> | 101 | | | 91 | | | | | | | | | | 81 | 56 | | | | | | 99 | | | | |
| <i>Streptococcus agalactiae (Group B)</i> | 36 | | | 100 | | | | | | | | | | 39 | | | | | | | 100 | | | | |
| <i>Streptococcus pneumoniae</i> | 20* | | | | 67 | 83 | 67 | | | | | | | 89 | 58 | | | | | | 90 | | | | |

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Values in each cell represent the percentage of isolates susceptible to the listed antibiotic. Grey cells indicate antibiotics which are not routinely tested or reported by the microbiology laboratory.

MRSA = Methicillin Resistant *Staphylococcus aureus*; VRE = Vancomycin Resistant *Enterococci*; IR = Intrinsic Resistance

Coagulase Negative Staphylococci includes the following species: *S. epidermidis*, *S. lugdunensis*, *S. haemolyticus*, *S. hominis*, *S. saprophyticus*, and *S. capitis*.

Streptococci (Viridans Group) includes the following species: *S. mitis* group, *S. milleri*, *S. intermedius*, *S. constellatus*, *S. bovis*, *S. anginosus*, *S. sanguinis*, *S. salivarius*/vestibularis group, *S. suis*, *S. galloyticus*, *S. lutetiensis*, and *S. mutans*.

*Fewer than 30 isolates will not accurately reflect the true susceptibility pattern of an organism. Please use discretion when interpreting these data.

§Percent susceptible includes isolates interpreted as Susceptible Dose Dependent (SDD).

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