VCUHS EMERGENCY DEPARTMENT ANTIBIOTIC SUSCEPTIBILITY TABLES
JANUARY – DECEMBER 2023
Department of Pathology - Microbiology/Immunology

Table 1. Activity of selected antibiotics against gram-positive cocci

	Percentage (%) of Organisms Susceptible														
Organism	**Number Tested**	**Penicillin (Nonmeningitis)**	**Penicillin (Meningitis)**	**Ampicillin**	**Oxacillin [a]**	**Ceftriaxone (Nonmeningitis)**	**Ceftriaxone (Meningitis)**	**Vancomycin**	**Tetracycline**	**Levofloxacin**	**Clindamycin**	**TMP/SMX**	**Ceftaroline [c]**	**Daptomycin [b,c]**	**Linezolid**
Staphylococcus aureus	404				63			100	85		74	97	100	99	100
Coagulase negative *Staphylococcus* species	116				47			100				65		100	100
Enterococcus faecalis	279			99				99						99	99
Enterococcus faecium	46			10				41						100	100
Streptococcus pneumoniae	37	94	56			94	83	100	70	91					
Streptococcus species Viridans group	45	80				97					93				

[a] Staphylococci resistant to oxacillin (methicillin) are also resistant to penicillin, ampicillin, cefazolin, cefoxitin, ceftriaxone, meropenem and all other beta-lactam antibiotics. Staphylococci species breakpoints are in use.
[b] Respiratory tract isolates included in Daptomycin results though excluded from reporting per CLSI M100 guidelines.
[c] Ceftaroline and Daptomycin results include Susceptible Dose Dependent (SDD) isolates.

Table 2. Activity of selected antibiotics against gram-negative bacilli

	Percentage (%) of Organisms Susceptible												
Organism	**Number Tested**	**Ampicillin**	**Amp/Sulb**	**Pip/Tazo [d]**	**Cefazolin**	**Cefepime [d]**	**Ceftriaxone**	**Meropenem**	**Gentamicin**	**Ciprofloxacin**	**Levofloxacin**	**TMP/SMX**	**Nitrofurantoin**
Citrobacter koseri (diversus)	32	IR	100	100	100	100	100	100	100	100	100	100	
Klebsiella (Enterobacter) aerogenes [a]	50	IR	IR	86	IR	100	84	100	100	98	98	96	
Enterobacter cloacae complex [a]	70	IR	IR	78	IR	94	70	95	97	84	92	74	
Escherichia coli	1288		84	99	86	95	90	100	90	79	82	69	98
Klebsiella oxytoca	42	IR	80	97	71	100	97	100	95	92	97	95	
Klebsiella pneumoniae	363	IR	78	94	81	89	84	98	90	80	88	78	
Proteus mirabilis [b]	183	92	99	100	94	100	98	100	97	81	81	84	
Pseudomonas aeruginosa	180	IR	IR	90		90	IR	91		84	80[c]	IR	
Serratia marcescens	43	IR	IR	97	IR	100	97	100	97	93	97	95	

IR = Intrinsic Resistance
[a] Use of 3rd generation cephalosporins is not recommended for *Enterobacter cloacae* complex, *Citrobacter freundii* complex, and *Klebsiella aerogenes* infections because resistance develops rapidly. Cefepime, meropenem, a quinolone, or TMP/SMX are recommended.
[b] *Proteus* species other than *Proteus mirabilis* are more resistant (similar to *Morganella* species).
[c] Levofloxacin breakpoints for Pseudomonas aeruginosa are based on a dosage regimen of 750mg every 24 hours.
[d] Piperacillin/tazobactam and Cefepime results include Susceptible Dose Dependent (SDD) isolates.

Data collected by the Clinical Microbiology Laboratory, Department of Pathology
CLSI M100-ed33 and M27M44-ed3 Interpretation breakpoints were applied unless otherwise stated.