

# ANTIBIOTICS

## ANTIMICROBIAL SUSCEPTIBILITY PROFILE for 2024 Organisms Isolated in 2023

	Number tested	Penicillin	Ampicillin	Amoxicillin/Clav	Ampicillin/Sulbac	Oxacillin	Cefazolin (1 <sup>st</sup> generation) <sup>6</sup>	Cefoxitin (2 <sup>nd</sup> generation)	Cefuroxime (2 <sup>nd</sup> generation)	Ceftazidime (3 <sup>rd</sup> generation)	Ceftriaxone (3 <sup>rd</sup> generation)	Cefepime	Clindamycin	Tetracycline	Doxycycline	Tobramycin	Gentamicin	Ertapenem	Meropenem	Piperacillin/Tazo	Vancomycin	Daptomycin	Linezolid	Levofloxacin	Ciprofloxacin	Trimeth/Sulfa	Nitrofurantoin(UTI only)	Rifampin*
Escherichia coli (non-ESBL)	1625	62	89	70		96	95	93	99	98	100				94	93	100	99	97				82	86	82	96		
Escherichia coli ESBL (Rate 7%)	119		63	34			80		58		85				63	73	100	100	90				15	22	57	89		
Klebsiella pneumoniae (non-ESBL)	338		98	92		99	95	95	99	99	99				99	99	100	99	98				90	94	97	43		
Klebsiella pneumoniae ESBL (Rate 8%)	31		67	22			90		58		77				74	80	100	100	63				16	32	25	17		
Klebsiella oxytoca	108		97	68		87	98	96	100	99	100				99	99	100	100	99				96	98	95	86		
Klebsiella aerogenes <sup>7</sup>	45								73	71	100				100	100	100		73				93	97	100	14		
Citrobacter freundii <sup>7</sup>	52								73	71	100				100	100	100	100	80				86	88	90	84		
Enterobacter cloacae complex <sup>7</sup>	181								80	76	98				97	97	100	100	81				93	95	94	33		
Proteus mirabilis	158	72	100	87		94	89	96	99	96	99				91	91	100	99	100				67	67	75			
Pseudomonas aeruginosa <sup>3</sup>	202								92		92				100	94		89	88				79	91				
Staphylococcus aureus MSSA <sup>4,5,8</sup>	475				100							85	92	97		99				100	100	100	90	89	99	100	100	
Staphylococcus aureus MRSA <sup>4,8</sup> (Rate 32%)	226											74	81	85		100				100	100	100	26	25	93	100	99	
Staphylococcus epidermidis <sup>4,8</sup>	125				32							61	87	84		94				100	100	100	80	80	66	98	100	
Enterococcus faecalis	419	99																		99	74	100	93	92		99		
Enterococcus faecium	35	42																		91	100	100	23	14		38		
Enterococcus faecium VRE (34%)	18																			100	100					25		
Streptococcus pneumoniae <sup>1,2,8</sup>	37	100								100		82	89							100			97		80			

EXPRESSED IN % SUSCEPTIBLE

Blank indicates insufficient data, inappropriate organism/drug combination, or susceptibility less than 10%.

\*Rifampin should not be used as a single agent.

1. Penicillin for *S. pneumoniae* percent sensitive using meningitis breakpoint is **73%**, using non-meningitis breakpoint is **100%**
2. Ceftriaxone for *S. pneumoniae* percent sensitive using meningitis breakpoint is **94%**, using non-meningitis breakpoint is **100%**.
3. Pseudomonas may test as sensitive to Ceftazidime in vitro but may produce an inducible beta-lactamase in vivo.
4. All Staphylococci are tested for inducible Clindamycin resistance. If inducible resistance is detected, the isolate is reported as resistant.
5. Methicillin (oxacillin)-susceptible Staphylococcus aureus are considered susceptible to: Beta-lactam combination agents, Cefdinir, Cephalexin, Cefazolin and Ceftriaxone.
6. Cefazolin is a surrogate test for oral cephalosporins in uncomplicated UTIs. Oral cephalosporins predicted by Cefazolin include: Cefaclor, Cefdinir, Cefpodoxime, Cefprozil, Cefuroxime, and Cephalexin.
7. Enterobacter, Klebsiella aerogenes, Citrobacter and Serratia may develop resistance within 3-4 days of therapy with 3rd generation cephalosporins. Repeat testing may be warranted.
8. Organisms that are susceptible to tetracycline are also considered susceptible to doxycycline and minocycline. However, some organisms that are intermediate or resistant to tetracycline may be susceptible to doxycycline or minocycline, or both.

This Chart is for the use of PMC physicians in choosing empiric therapy prior to definitive test results.