

# Vanderbilt Wilson County Hospital

VANDERBILT  HEALTH

**VWCH Antibiogram 2024**  
**Antimicrobial Susceptibility Summary**  
**Bacterial isolates for December 2022 – November 2023**

	Number of patients	Penicillins				Cephalosporins				Quinolones		Carbapenems		Aminoglycosides			Others			
		Amoxicillin-Clavulanate	Ampicillin	Ampicillin-sulbactam	Piperacillin-tazobactam	Cefazolin	Cefepime	Ceftazidime	Ceftriaxone	Ciprofloxacin	Levofloxacin	Ertapenem	Meropenem	Amikacin	Gentamicin	Tobramycin	Aztreonam	Nitrofurantoin	Tetracycline	Trim-Sulfamethoxazole
Gram negative bacteria																				
Escherichia coli	574	88	53	78	97	85	91	91	89	70	78	100	100	100	92	92	90	98	77	79
Klebsiella pneumoniae	166	94	R	85	94	88	92	89	90	87	91	100	100	100	96	96	90	33	84	89
Pseudomonas aeruginosa	81	R	R	R	92	R	97	93	R	84	80	R	95	100*	R	-	88	R	R	R
Proteus mirabilis	58	95	72	95	100	79	83	100	83	64	66	100	-	100	81	86	100	R	R	66
Enterobacter cloacae	40	R	R	R	90	R	95	88	83	95	98	98	100	100	98	98	90	25	93	95
Klebsiella oxytoca	26	92	R	89	92	89	92	92	89	96	100	100	100	100	96	92	89	96	89	89
Klebsiella aerogenes	24	R	R	R	79	R	100	75	75	96	100	96	100	100	100	100	79	13	100	100

\*Urine only

R, intrinsic resistance

- *Enterobacter cloacae*, *Klebsiella aerogenes*, and *Citrobacter freundii* may develop resistance during therapy with 3rd-generation cephalosporins due to derepression of AmpC β-lactamase.

	Number of patients	Penicillins															
		Ampicillin	Penicillin	Oxacillin	Ceftaroline	Doxycycline	Levofloxacin	Clindamycin	Daptomycin	Erythromycin	Gentamicin	Linezolid	Nitrofurantoin	Rifampin	Trim-Sulfamethoxazole	Vancomycin	
Staphylococcus aureus	267	-	18	50	94	94	66	83	99	40	96	100	100	100	91	100	
Methicillin Resistant (MRSA)	135	-	R	R	87	90	40	73	99	14	93	100	100	100	85	100	
Methicillin Susceptible (MSSA)	136	-	91	100	100	99	91	99	99	65	99	100	99	100	93	100	
Enterococcus faecalis	126	100	100	-	-	41	84	-	92	-	84**	98	100	-	-	98	
Enterococcus faecium	22	18	18	-	-	68	23	-	100***	-	96**	100	-	-	-	41	

\*\*Gentamicin Synergy

\*\*\*Daptomycin susceptibility for *E. faecium* indicates percentage susceptible, dose dependent.

- Isolation of *Staphylococcus aureus* in the urine should be followed by a blood culture to confirm the patient is not bacteremic.
- *Staphylococcus aureus* bacteremia or suspected invasive infection should be treated with initial IV antibiotics in conjunction with ID consultation
- Drugs of choice for *E. faecalis* include penicillin and ampicillin in the absence of severe penicillin allergy.
- VRE infections often require treatment with restricted antibiotics such as daptomycin, which require ID approval for use.

1. Rifampin should **NEVER** be used as monotherapy
2. Antibiotic therapy should be narrowed once susceptibilities are known.
3. First isolate from each patient was included.
4. Susceptibility results of <30 isolates (CLSI M39 Guidelines) lack statistical validity

Key	% Susceptibility
	<70
	70-89
	≥90