VBCH Antimicrobial Susceptibility Summary: 2025

Clinical Microbiology
Department of Pathology, Microbiology and Immunology

Preface

This booklet contains up-to-date information to assist in decisions concerning antimicrobial therapy.

Tables summarize susceptibility data obtained for organisms isolated in the VUMC Clinical Microbiology Laboratory between January 1, 2025 – December 31, 2025.

Guidelines for Interpretation of Minimum Inhibitory Concentrations (MICs)

MICs are interpreted as susceptible, intermediate, resistant, non-susceptible or susceptible dose dependent according to Clinical and Laboratory Standards Institute (CLSI) guidelines. When deciding whether the interpretation is meaningful, one should consider the antimicrobial pharmacokinetics, taking into account dosage and route of administration, the infecting organism and site of infection, and previous clinical experience.

For additional information, please call the microbiology laboratory, or the Antimicrobial Stewardship team.

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VASP Website:
https://medsites.vumc.org/antimicrobial-stewardship-program

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Table 1. Most Common Gram-negative Bacteria, Urine Isolates, % Susceptible

Data represent first isolate per patient.

Organism	N	Ampicillin	Ampicillin/Sulbactam	Cefazolin*	Cefepime	Ceftazidime	Ceftriaxone	Cefuroxime axetil	Ciprofloxacin	Ertapenem	Gentamicin	Levofloxacin	Meropenem	Nitrofurantoin	Piperacillin/Tazobactam	Trimethoprim/Sulfamethoxazole
Escherichia coli	607	53	80.2	85	90	88	88	82	72	100	92	73	100	98	95	71
Klebsiella pneumoniae	140	R	87.1	90	92	91	91	90	81	99	96	82	99	14	91	84
Proteus mirabilis	53	72	88.7	79	91	91	79	89	66	100	93	66	100	R	100	68
Pseudomonas aeruginosa	42	R	R	R	95	95	R	R	74	R	95	71	86	R	91	R

*Oral cephalosporins include: cefaclor, cefdinir, cefpodoxime, cefprozil, cefuroxime, cephalexin, and loracarbef for treatment of uncomplicated urinary tract infections.

ⓘ Empiric guidance for the treatment of urinary tract infections, including pyelonephritis, can be found on the VASP website at https://www.vumc.org/vasp/52609. Antibiotics should be narrowed once susceptibilities are known.

Table 2. Most Common Gram-negative Bacteria, Non-Urine Isolates, % Susceptible

Data represent first isolate per patient.

Organism	N	Ampicillin	Ampicillin/Sulbactam	Cefazolin	Cefepime	Ceftazidime	Ceftriaxone	Cefuroxime axetil	Ciprofloxacin	Ertapenem	Gentamicin	Levofloxacin	Meropenem	Piperacillin/Tazobactam	Trimethoprim/Sulfamethoxazole
Escherichia coli	62	50	8461		80	100	90	81	81	98	94	84	100	95	79
Pseudomonas aeruginosa	54	R	R	R	91	94	R	R	87	R	98	85	93	87	R

R, intrinsic resistance

Table 3. Adults – *Staphylococcus aureus*, % Susceptible

Data represent first isolate per patient.

Organism	N	Clindamycin	Daptomycin	Doxycycline	Linezolid	Levofloxacin	Nitrofurantoin	Oxacillin	Trimethoprim/sulfamethoxazole*	Vancomycin
Staphylococcus aureus	174	82	100	91	99	62	100	57	85	100
MSSA	100	94	100	98	100	89	100	100	95	100
MRSA	77	65	100	81	99	26	100	0	70	100

ⓘ Isolation of *S. aureus* in the urine should be followed by a blood culture to confirm the patient is not bacteremic
S. aureus bacteremia or suspected invasive infection should be treated with IV antibiotics in conjunction with ID consultation

Table 4. Adults – *Enterococcus* spp., % Susceptible

Data represent first isolate per patient.

	N	Ampicillin	Daptomycin	Doxycycline	Linezolid	Levofloxacin	Nitrofurantoin	Vancomycin
Enterococcus faecalis	136	100	74	27	97	84	99	97

ⓘ Drugs of choice for *E. faecalis* include ampicillin in the absence of severe penicillin allergy.