VTHH Antimicrobial Susceptibility Summary: Adult Patients 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
Enterobacter cloacae	34	R	R	R	79	59	56	R	77	88	82	77	97	47	59	79
Escherichia coli	906	53	79	85	91	88	88	81	72	100	94	74	100	97	94	77
Klebsiella pneumoniae	268	R	85	84	87	84	84	77	75	100	92	76	100	17	84	80
Proteus mirabilis	110	71	91	76	86	83	76	79	65	100	94	65	99	R	100	66
Pseudomonas aeruginosa	58	R	R	R	93	93	R	R	86	R	93	79	93	R	88	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	106	52	76	58	86	85	83	76	67	99	88	72	100	93	78
Klebsiella pneumoniae	50	R	84	80	86	82	82	80	68	100	90	68	100	84	70
Proteus mirabilis	37	73	95	5	87	89	76	78	70	100	89	68	100	100	65
Pseudomonas aeruginosa	46	R	R	R	94	98	R	R	94	R	100	96	96	91	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	234	83	100	89	100	58	100	47	83	100
MSSA	113	95	100	96	100	89	100	100	94	100
MRSA	126	72	100	81	100	31	100	0	75	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	294	100	71	23	100	78	100	98
Enterococcus faecium	35	23	ND	27	93	27	40	71

ND, not tested

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