

Antibiotic Susceptibility Patterns of Commonly Isolated Bacteria

July 2023 – June 2024 (12 months)

WAKEFIELD

NOTES

- Minimum inhibitory concentrations (MIC) and interpretations are based on the CLSI standards and an advanced antibiotic expert system.
- Percentages are not calculated for organisms with <10 isolates. For N of < 30 isolates, results may not be statistically relevant. Interpret with caution.

KEY

- Text color: • > 10% increase in susceptibility from previous year
• > 10% decline in susceptibility from previous year

Box color: intrinsic resistance

Less susceptible More susceptible

	AMPI		AMPI/SULB		AZTREO		CEFAZOL		CEFEPM		CEFOXTN		CEFTRIA		CIPROFLX		GENT		MERO		NITRO (urine only)		PIP/TAZO		TOBRA		TMP/SMX	
	N	% S	N	% S	N	% S	N	% S	N	% S	N	% S	N	% S	N	% S	N	% S	N	% S	N	% S	N	% S	N	% S	N	% S
<i>Acinetobacter baumannii</i> complex			31	58					31	39			31	26	31	35	31	52	31	39			25	36	31	65	31	52
<i>Citrobacter koseri</i> ²			16	81	16	94	16	88	16	100	16	88	16	94	16	100	16	94	16	100		2	16	81	16	94	16	100
<i>Enterobacter cloacae</i> ²					23	78			23	78			23	65	23	91	23	100	23	96	11	45 ²	23	74	23	96	23	87
<i>Escherichia coli</i>	421	38	421	43	421	77	421	60	420	78	421	74	421	76	420	51	421	86	419	99	307	97	421	74	421	84	421	63
<i>Klebsiella (Enterobacter) aerogenes</i> ²					14	71			14	100			14	71	14	100	14	100	14	100		2	14	64	14	100	14	100
<i>Klebsiella oxytoca</i> ²			25	50	16	88	16	50	16	88	16	88	16	88	16	88	16	88	16	100		2	16	88	16	88	16	88
<i>Klebsiella pneumoniae</i>			171	59	154	71	154	62	154	71	154	68	154	71	154	67	154	92	154	97	94	62	154	66	153	88	154	73
<i>Morganella morganii</i> ²			28	22	18	94			18	100	18	61	18	94	18	61	18	83	18	100			18	94	18	78	18	67
<i>Proteus mirabilis</i>	86	62	109	70	85	78	86	2	86	81	85	76	86	78	86	52	86	60					86	78	86	64	86	66
<i>Providencia stuartii</i> ²			18	9	11	82			11	55	11	82	11	55	11	0			11	100			11	55			11	55
<i>Serratia marcescens</i> ²					25	68			25	96			25	60	25	60	25	96	25	96			25	64	25	72	14	86

	AMIK		AZTREO		CEFEPIME		CIPROFLX		GENT		MERO		PIP/TAZO	
	N	% S	N	% S	N	% S	N	% S	N	% S	N	% S	N	% S
<i>Pseudomonas aeruginosa</i>	203	100	199	68	203	87	202	74	202	94	203	85	203	75

	CEFTAZDM		LEVOFLX		MINO		TMP/SMX	
	N	% S	N	% S	N	% S	N	% S
<i>Stenotrophomonas maltophilia</i> ²	34	35	34	74	34	97	34	97

ENTEROCOCCUS Urine* Wakefield	AMPI		LEVOFLX		NITRO		TETRACYC		VANC	
	N	% S	N	% S	N	% S	N	% S	N	% S
<i>Enterococcus faecalis</i>	32	97	32	78	32	100	32	22	32	91
<i>Enterococcus faecium</i> ²	9		9		9		9		9	

*Urine cultures with 10⁵ colonies of enterococci as a single organism have a routine susceptibility test. Infectious Diseases generally recommends susceptibility testing when patients do not respond to empiric therapy.

	AMPI		CEFTRIA		CIPROFLX		TMP/SMX	
	N	% S	N	% S	N	% S	N	% S
Salmonella species (all inpatient isolates) ²	27	93	7	2	26	73	27	96

ENTEROCOCCUS Sterile Sites All Campuses 2023-2024	AMPI		DAPTO ^A		GENT SYN ^B		LINEZD		STREP SYN ^B		VANC	
	N	% S	N	% S	N	% S	N	% S	N	% S	N	% S
<i>Enterococcus faecalis</i>	143	100	143	85	143	76	143	99	143	85	143	93
<i>Enterococcus faecium</i>	93	11	92	96	92	89	93	98	92	59	93	31

A. For *E. faecalis*, daptomycin is not recommended due to cost and the availability of an agent with a narrower spectrum of activity (i.e. ampicillin/amoxicillin).

B. Susceptibility indicates synergy with penicillin, ampicillin, piperacillin-tazobactam, and vancomycin.

CANDIDA All Campuses 2023-2024	<i>C. albicans</i>					<i>C. parapsilosis</i> ²					<i>C. tropicalis</i> ²					<i>C. glabrata</i>					<i>C. auris</i> ^{A,2}			
	N	S	SDD	I	R	N	S	SDD	I	R	N	S	SDD	I	R	N	S	SDD	I	R	N	S	R	
Fluconazole	88	93	2	3	23	87	9	13	12	42	33	25	56	82	18	21	5	95						
Voriconazole	88	93	3	3	23	91	9	0	12	42	58	0												
Micafungin	5	2	2	2	6	2	2	2	3	2	2	2	56	96	0	4	20	100	0					
Amphotericin B																20	90	10						

*Data is shown for epidemiologic purposes; contact ID for questions about use of antifungals.

A. Breakpoints for *C. auris* have not been established by CLSI. Breakpoints used here are defined by the CDC and are based on those established for closely related *Candida* species and on expert opinion.

STAPHYLOCOCCUS ^A	CLINDA		OXA / CEF		GENT ^D		PEN G		TETRACYC		TMP/SMX		VANC	
	N	% S	N	% S	N	% S	N	% S	N	% S	N	% S	N	% S
<i>S. aureus</i> (MSSA)	224	64	224	100	224	98	224	0	224	97	224	96	224	100
<i>S. aureus</i> (MRSA) ^B	174	75	174	0	174	94	174	0	174	69	173	86	174	100
<i>S. epidermidis</i>	98	52	97	33	94	86	97	0	96	81			97	100
<i>S. haemolyticus</i> ²	11	18	11	9	11	18	11	0	11	91			11	100
<i>S. lugdunensis</i> ²	12	75	12	92	12	100	11	0	12	92	8		12	100

A. All staphylococci may rapidly develop resistance during prolonged therapy with quinolones. Use with staphylococci is not recommended.

B. MRSA isolates with reduced susceptibility to daptomycin have been detected at Montefiore Campuses.

C. Oxacillin-resistant staphylococci are also resistant to all penicillins, cephalosporins, and carbapenems. Oxacillin-susceptible staphylococci are also susceptible to dicloxacillin, nafcillin, ampicillin-sulbactam, piperacillin-tazobactam, amoxicillin-clavulanic acid, cefazolin, cephalexin, cefotetan, ceftriaxone, cefepime, and meropenem (as well as other penicillins, cephalosporins, and carbapenems that are non-formulary).

D. Gentamicin should not be used as single agent and only for synergy for treatment of staphylococcal infections.

viridans <i>Streptococcus</i> (sterile sites)	PEN		CEFTRIA		VANC	
	N	% S	N	% S	N	% S
	57	70	62	97	60	98

STREPTOCOCCUS PNEUMONIAE All Campuses 2023-2024	Sterile Site				Non-Sterile Site				
	N	S	I	R	N	S	I	R	
PENICILLIN ^{A,B}	Meningitis	52	62		38				
	Non-CNS	52	98	0	2				
	Parenteral					65	91	6	3
CEFTRIAZONE ^A	Oral					65	62	15	23
	Meningitis	53	98	2	0	65	95	2	3
LEVOFLOXACIN	Non-CNS	53	100	0	0	65	97	0	3
		60	96	2	2	72	94	3	3
TRIMETH/SULFA ^C					71	76	8	15	

A. Pneumococcal susceptibility rates against penicillin and ceftriaxone from sterile sites are reported as if isolates came from both CSF and all other sterile sites. Susceptibility rates are higher for non-CSF sites because higher antibiotic concentrations can be reached.

B. For pneumococcal isolates from non-sterile sites (sputum), penicillin susceptibility rates are also reported separately for oral and parenteral formulations. The susceptibility rate is higher for parenteral than oral penicillin because higher concentrations are achieved when penicillin is given parenterally.

C. Pneumococci from sterile sites are not tested against erythromycin and trimethoprim-sulfamethoxazole because those antimicrobials generally should be used only for pneumococcal respiratory infections.