

Antibiogram 2021

Species with less than 30 isolates, susceptibilities should be interpreted with caution. Grey boxes indicate organism has intrinsic resistance or susceptibilities are not published to corresponding antimicrobial.

Gram Negative NON-URINE Isolates Inpatient and Emergency Department		Total # Isolates	Ampicillin	Ampicillin-Sulbactam	Piperacillin-Tazobactam	Cefazolin	Ceftriaxone	Ceftazidime	Cefepime	Ertapenem	Meropenem	Levofloxacin	Trimethoprim Sulfamethoxazole	Gentamicin	Tobramycin
Organisms	# Results	% Susceptibility													
Acinetobacter spp.	3						67%	100%	100%		100%	100%	100%	100%	100%
Citrobacter spp. ¹	13		38%	85%	38%	83%		92%	100%	100%	100%	92%	92%	92%	100%
Enterobacter spp. ^{1,2}	26			73%		69%		77%	77%	100%	100%	96%	88%	100%	100%
Escherichia coli	111	60%	68%	98%	86%	89%		91%	99%	100%	77%	70%	93%	91%	
Klebsiella spp.	58		60%	91%	71%	90%		91%	100%	100%	100%	97%	88%	93%	93%
Klebsiella spp excluding K.aerogenes	52		66%	91%	77%	89%		90%	100%	100%	100%	98%	87%	92%	92%
K. aerogenes ¹	6		0%	100%		100%		100%	100%	100%	100%	83%	100%	100%	100%
Proteus vulgaris group	5			100%				100%	100%	100%	60%	100%	100%	80%	80%
Proteus mirabilis	16	88%	94%	100%	87%	100%		100%	100%		75%	94%	81%	80%	
Pseudomonas aeruginosa	26			88%			88%	88%		92%	85%		100%	100%	
Serratia spp. ¹	11			100%		100%		100%	100%	100%	100%		100%	100%	
Stenotrophomonas maltophilia (all locations)	10						30%				80%	90%			

¹Enterobacter, Klebsiella (formerly Enterobacter) aerogenes, and Citrobacter have the potential to induce AmpC beta-lactamase production and become resistant to 3rd generation cephalosporins, aztreonam, piperacillin-tazobactam while on therapy. Use those agents with caution. Failure rates appear highest with Enterobacter>>Citrobacter. Cefepime and carbapenems appear to be stable. (REF: Tamma, PD et al. IDSA Guidance for treatment of GNR bacteria, 3/31/22)

	80% or better
	70-79%
	<=69%

²Among enterobacter resistant to ertapenem, none were identified as true CRE by CDPHE

Haemophilus influenzae beta-lactamase positive 15%, total isolates n=13

Carbapenem Resistant Ps. aeruginosa (CRPA) rate Inpatient/ED: 1) NON-URINE 8%, 2) URINE 11%; Outpatient: 1) NON-URINE 5%, 2) URINE 2%

ESBL (E.coli and Klebsiella) rate Inpatient/ED: 1) NON-URINE 5%, 2) URINE 4%; Outpatient: 1) NON-URINE 5%, 2) URINE 4%

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Gram Positive NON-URINE Isolates Inpatient and Emergency Department		Total # Isolates	Penicillin G	Penicillin G (meningitis)	Oxacillin ³	Ceftriaxone	Ceftriaxone (meningitis)	Clindamycin	Levofloxacin	Trimethoprim Sulfamethoxazole	Vancomycin	Gentamicin synergy	Tetracycline	Erythromycin
Organisms	# Results	% Susceptibility												
Enterococcus spp. ¹	54	93%									94%	83%		
E. faecalis	47	100%									100%	85%		
E. faecium	7	43%									57%	71%		
Streptococcus pneumoniae (all locations) ²	17	94%	59%		100%	100%	81%	94%	65%	100%				38%
Viridans Strep (includes S.anginosus) ⁴	25	76%			100%		X	X		100%				
Streptococcus pyogenes (Group A)	23	100%			100%		52%			100%				52%
Streptococcus agalactiae (Group B)	8	100%			100%		50%			100%				50%
Staphylococcus aureus all locations	695			81%			81%		99%	100%			94%	
Inpatient/ED	237			70%			80%		98%	100%			93%	
Outpatient only	481			86%			81%		99%	100%			93%	
Staphylococcus epidermidis	19			37%			63%		*	100%			79%	
Staphylococcus lugdunensis (all locations)	39			100%			87%		*				97%	

1. Enterococci susceptible to penicillin are predictably susceptible to ampicillin, amoxicillin, ampicillin-sulbactam, amoxicillin-clavulanate and pip/tazo.
2. CLSI requires publication of two breakpoints for all pneumococcal isolates designated: meningitis and non-meningitis.
There were 8 blood/CSF & 9 Respiratory/Wound pneumococcal isolates.
3. Oxacillin results can be applied to other anti-staph penicillins and β -lactam/ β -lactamase inhibitors, cephalosporins and carbapenems.
4. Viridans Strep non-susceptible to penicillin 100% (n=9) were intermediate (MIC 0.25-2.0).

X=not recommended

*In house testing not available

	80% or better
	70-79%
	<=69%

MRSA rate Inpatient/ED: 1) NON-URINE 30% 2) URINE 25%; Outpatient: 1) NON-URINE 14%, 2) URINE 19%

VRE rate Inpatient/ED: 1) NON-URINE 6%, 2) URINE 0%; Outpatient URINE 0%

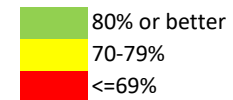
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URINE Isolates Inpatient and Emergency Department		Total # Isolates	Penicillin G	Ampicillin	Ampicillin Sulbactam	Oxacillin	Piperacillin-Tazobactam	Cefazolin	Ceftriaxone	Ceftazidime	Cefepime	Ertapenem	Meropenem	Levofloxacin	Trimethoprim Sulfamethoxazole	Vancomycin	Nitrofurantoin	Tetracycline	
Organisms	# Results	% Susceptibility																	
Acinetobacter species	0																		
Citrobacter spp	16					81%		81%			100%	88%	100%	100%	88%			81%	88%
Enterobacter cloacae	23					83%		74%			94%	83%	100%	100%	91%			30%	96%
E.coli	411		64%	67%		99%	88%	93%			94%	100%	100%	84%	80%			98%	77%
Klebsiella spp.																			
Klebsiella excluding K.aerogenes	84			79%		96%	94%	96%			96%	99%	100%	93%	89%			62%	85%
K.aerogenes	9			0%		100%	0%	100%			100%	100%	100%	100%	100%			44%	89%
Proteus spp.																			
P. mirabilis	26		65%	81%		100%	96%	100%			100%	100%		58%	73%				
P. vulgaris group	5					60%					100%	100%	100%	60%	80%				
Ps. aeruginosa	35					83%				83%	97%		89%	83%					
Serratia marcescens	4					100%		100%			100%	100%	100%	100%					
Stenotrophomonas (All Locations)	2									50%					50%	0%			
Enterococcus spp. total	68	97%	97%														100%	100%	38%
E. faecalis	64	100%	100%														100%	100%	36%
E. faecium	4	50%	50%														100%	*	50%
Staphylococcus aureus	44					75%									100%	100%	100%	100%	86%
Staph species not aureus	23					65%									*	100%	100%	100%	74%

Enterococci susceptible to penicillin are predictably susceptible to ampicillin, amoxicillin, ampicillin-sulbactam, amoxicillin-clavulanate and pip/tazo

*In house testing not available



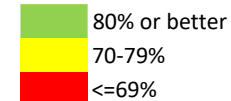
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URINE Isolates Outpatient		Total # Isolates	Penicillin G	Ampicillin	Ampicillin Sulbactam	Oxacillin	Cefazolin	Ceftriaxone	Ceftazidime	Cefepime	Ertapenem	Meropenem	Levofloxacin	Trimethoprim Sulfamethoxazole	Vancomycin	Nitrofurantoin	Tetracycline
Organisms	# Results	% Susceptibility															
Acinetobacter baumannii	3			100%			67%	100%	67%			100%	100%	100%			
Citrobacter spp.	56			54%		45%	91%					100%	93%	88%		79%	84%
Enterobacter cloacae complex	37					84%						100%	89%	86%		41%	89%
E.coli	1484		67%	71%		92%	95%					100%	87%	83%		99%	80%
Klebsiella spp.																	
Klebsiella excluding K. aerogenes	236			78%		86%	94%					100%	94%	93%		63%	87%
K. aerogenes	21			0%		0%	90%					100%	100%	95%		38%	100%
Proteus spp.																	
P. mirabilis	63		90%	95%		94%	95%						89%	92%			
P. vulgaris group	5					0%	20%						60%	100%			
Ps. aeruginosa	41							98%	98%			100%	93%				
Serratia marcescens	4						100%					100%	100%	*			
Enterococcus spp.	115	100%	100%												100%	100%	27%
E. faecalis	111	100%	100%												100%	100%	24%
E. faecium	4	100%	100%												100%	*	100%
Staphylococcus aureus	67				81%								100%	100%	100%	100%	96%
Staph species not aureus	55				69%									*	100%	100%	82%

Cefepime and Ertapenem not reported for outpatient urines Enterobacterales group

*In house testing not performed.



Antibiogram 2021

Species with less than 30 isolates, sensitivities should be interpreted with caution.

Yeast , All Locations ¹				
	# isolates	Fluconazole	Micafungin	Voriconazole
Organisms	# Results	% Susceptibility		
Candida albicans	12	100%	100%	100%
Candida glabrata	4	75%	100%	
Candida krusei ² (Pichia kudriavzevii)	1	0%	100%	100%
Candida tropicalis	0			
Candida parapsilosis	1	100%	100%	100%
Overall	18	89%	100%	100%

¹Testing performed at Mayo Laboratories

²Intrinsically resistant to Fluconazole

Isolate sources: Peritoneal n=8, Bone/joint n=1, Urine n=4, Blood n=5

