

Diagnostic Laboratory Services, Inc  
Antimicrobial Epidemiology Data  
January 1, 2019 through December 31, 2019

OUTPATIENTS ONLY - ALL SOURCES

NOTE: Statistics reflect the inclusion of data from patients seen in the medical centers as Emergency Department, Non-hospital Ambulatory, and Clinic patients.

GRAM NEGATIVE SUSCEPTIBILITIES (Percent Susceptible)



	A. baumannii complex <sup>a</sup>		C. freundii complex <sup>b</sup>		Citrobacter koseri		Kleb. (Ent) aerogenes <sup>c</sup>		E. cloacae complex <sup>d</sup>		Escherichia coli		E. coli ESBL		Klebsiella pneumoniae		K. pneumo ESBL		Klebsiella oxytoca		K. oxytoca ESBL		Morganella morganii		Proteus mirabilis		P. mirabilis (ESBL)		Pseudomonas aeruginosa		Serratia marcescens							
	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec								
Amikacin			100	100	100	100	100	100	100	100	100	100	100	100	99	100	100	98	100	100	*	*	100	100	100	100	100	*	100	99	100	100						
Ampicillin												62	64												90	92												
Ampicillin/Sulbactam	100	98										82	82			91	91			78	91		19	9	97	99	25	*										
Cefazolin (urine)-New												*	96			*	98							*	98													
Cefepime	95	95	100	100	100	99	99	99	96	97	100	100			100	100			100	100			99	99	98	100			99	99	98	100						
Ceftriaxone	70	87	85	82	99	98	92	91	87	84	99	99			100	100			99	100			97	96	98	100					98	99						
Ciprofloxacin	97	96	96	89	98	99	97	98	96	94	85	85			95	96	14		95	98	*	*	90	90	92	95	40	*	93	93	93	97						
Ertapenem														99	100			100	99			*	*					100	*									
Gentamicin	100	98	97	99	100	100	100	100	99	99	94	94	82	80	100	100	61	56	100	100	*	*	97	94	98	99	60	*	99	99	98	100						
Imipenem													99	100			100	98			*	*					100	*	95	95								
Nitrofurantoin (urine)			100	98	100	100	37	45	75	67	99	99	96	98	77	77	34	37	98	100	*	*																
Piperacillin/Tazobactam	100	98	98	90	100	99	94	95	93	87	99	99	98	98	99	99	91	88	96	100	*	*	100	100	100	100	80	*	99	100	83	100						
Tobramycin	100	100	100	100	100	100	99	100	99	99	99	99	93	92	100	100	57	50	100	100	*	*	100	99	100	100	60	*	100	100	98	100						
Trimeth-Sulfa	89	89	89	84	100	99	97	97	85	89	81	81	42	42	92	93	18	12	75	92	*	*	93	89	90	91	20	*			98	99						
<b>Total Isolates</b>	61	57	88	67	222	243	154	223	233	286	8583	8454	875	826	1657	1613	105	132	79	87	4	1	147	142	832	755	5	7	804	926	96	87						
																	% E.coli ESBL	9%	9%	% K.pneu ESBL	6%	8%	% K.oxy ESBL	5%	1%											% P.mir ESBL	1%	1%

<sup>a</sup> Acinetobacter baumannii complex includes Acinetobacter baumannii and Acinetobacter calcoaceticus

<sup>c</sup> Enterobacter aerogenes has been renamed Klebsiella aerogenes

<sup>b</sup> Citrobacter freundii complex includes C.baarki, C.freundii, C.gillenii, C.murliniae, C.rodenticum, C.sedlakii and C.wekmenii

<sup>d</sup> Enterobacter cloacae complex includes E.asburiae, E.cancerogenus, E.cloacae, E.dissolvens, E.hormaechei, E.kobei, and E.nimipressuralis

<sup>e</sup> Staphylococcus aureus group includes S.aureus, S.argenteus and S.schweitzeri

Asterisk (\*) indicates no result available

GRAM POSITIVE SUSCEPTIBILITIES (Percent Susceptible)

	S. aureus complex <sup>a</sup> MSSA <sup>d</sup>		S. aureus complex <sup>a</sup> MRSA		Staph sp. (Coag neg)		Enterococcus Non-VRE <sup>5</sup>		Enterococcus VRE		Strep pneumoniae		S.agalactiae (GBS)		S. pyogenes (GAS)	
	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec
Ampicillin							98	97	35	*						
Cefazolin	100	100			58	59										
Ceftriaxone												See Table	100	100	100	100
Ciprofloxacin							88	91	24	*						
Clindamycin <sup>1</sup>	85	84	65	63	66	70					86	*	51	64	89	86
Daptomycin	100	100	100	100	100	100										
Erythromycin <sup>1,2</sup>	76	76	22	22	47	47					68	*	48	56	87	84
Gentamicin	100	100	98	100	93	94										
Linezolid	100	100	100	100	100	100	100	100	100	*						
Moxifloxacin	96	97	58	60	79	82										
Nitrofurantoin (urine)	100	100	100	100	100	100	99	99	84	*						
Oxacillin	100	100			57	59										
Penicillin	36	36			23	24					See Table	100	100	100	100	
Rifampin <sup>3</sup>	100	100	100	100	98	99										
Tetracycline	96	95	89	89	83	81	29	23	26	*	84	*				
Trimeth-Sulfa	97	97	71	66	73	76					95	*				
Vancomycin	100	100	100	100	100	100	100	100	0	*	100	*	100	100	100	100
<b>Total Isolates</b>	1899	2217	911	1100	720	729	972	1014	34	28	38	24	84	92	653	1437
	% MRSA		32%	33%			% VRE		3%	3%						

Footnotes:

<sup>1</sup> Clindamycin & erythromycin are not appropriate for urine sources

<sup>2</sup> Erythromycin is not appropriate for pregnant women

<sup>3</sup> Rifampin should not be used alone for treatment of Staph infections

<sup>4</sup> Staph aureus (MSSA) isolates that show Penicillin susceptibility may harbor the blaZ gene that produces beta-lactamase

<sup>5</sup> Non-VRE includes intrinsically resistant Enterococcus (E.casseliflavus & E.gallinarum)

Streptococcus pneumoniae

Incidence by MIC Value

MIC	Penicillin		Ceftriaxone		
	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	
	# isolates	# isolates	# isolates	# isolates	
<=0.06	30	*	<=0.12	30	*
0.12	1	*	0.25	2	*
0.25	1	*	0.5	1	*
0.5	0	*	1	0	*
1	1	*	2	0	*
2	0	*	>=4	0	*
4	0	*			
>=8	0	*			

S. pneumo interpretive guidelines

Penicillin		
Parenteral non-meningitis	<=2 S	4 I
Parenteral meningitis	<=0.06 S	----
Oral	<=0.06 S	0.12-1 I
	>=0.12 R	>=2 R
Ceftriaxone		
Non-meningitis	<=1 S	2 I
Meningitis	<=0.5 S	1 I
	>=4 R	>=2 R

Haemophilus influenzae  
SUSCEPTIBILITIES  
(Percent Susceptible)

	Haemophilus influenzae	
	Jan-Jun	Jul-Dec
Ampicillin	66	75
Azithromycin	97	98
Ceftriaxone	94	97
Cefuroxime	92	93
Meropenem	98	100
Moxifloxacin	100	99
Tetracycline	88	98
Trimeth-Sulfa	57	60
<b>Total Isolates</b>	121	95

Values in GREEN indicate increase in susceptibility greater than 5%

Values in RED indicated decrease in susceptibility greater than 5%

NOTE: Where total isolates is less than 30 (indicated in yellow), the susceptibility percentage may not be clinically significant and is excluded on these tables.

Source: CLSI Document M39-A4, January 2014