

2021 Antibigrams



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General Notes:			
- Historical susceptibility data may not reflect current CLSI breakpoints - Isolate numbers may not always be accurate. Isolate totals were assumed to apply when testing was indicated from specific sites (i.e. urine) or data was provided for multiple years (i.e. data from 2020 and 2021 combined). Interpret with caution - Cefazolin may contain susceptibilities measured at different breakpoints. Interpret with caution - Each susceptibility contains data from ≥3 hospitals - Aggregated data with <30 isolates were excluded - Duplicate data excluded			
Abbreviations:		Symbols:	
NU:	Non-Urine	\$	In 2023, CLSI revised all aminoglycoside breakpoints for <i>Pseudomonas</i> . Of note, gentamicin is no longer a treatment option for <i>Pseudomonas</i>
U:	Urine	!	<i>E. coli</i> and <i>K. pneumoniae</i> ≠ Non-ESBL + ESBL data due to variation in reporting across hospitals
ESBL:	Extended Spectrum Beta-Lactamase	<	Reported on MDRO from all sites except urines
MRSA:	Methicillin Resistant <i>Staphylococcus aureus</i>	?	Includes data from <i>Acinetobacter baumannii/nosocomialis</i> group
MSSA:	Methicillin Susceptible <i>Staphylococcus aureus</i>	#	Includes data from <i>Acinetobacter baumannii/haemolyticus</i>
GAS:	Group A <i>Streptococcus</i>	&	Includes data from <i>Klebsiella oxytoca/Raoultella ornitholytica</i>
GBS:	Group B <i>Streptococcus</i>	~	<i>Staphylococcus aureus</i> ≠ MRSA + MSSA data due to variation in reporting across hospitals
		@	Calculated from 2019, 2020, and 2021 data

For more information, visit <https://firstline.org/nyc/>



All NYC 2021	Lincosamide		Urine Only			
	Clindamycin		Nitrofurantoin		Fosfomycin	
Gram Negative	n	%	n	%	n	%
<i>Acinetobacter baumannii</i>						
2020 + 2021						
<i>Bacteroides fragilis</i>	126	59				
<i>Citrobacter freundii</i>			308	91		
<i>Citrobacter koseri</i>			265	90		
<i>Enterobacter cloacae</i>			1619	39		
<i>Escherichia coli</i> !			19349	97	6797	97
Non-ESBL			6535	97		
ESBL			1315	91		
<i>Haemophilus influenzae</i>						
<i>Klebsiella aerogenes</i>			454	27		
2020 + 2021						
<i>Klebsiella oxytoca</i>			697	94 &		
2020 + 2021						
<i>Klebsiella pneumoniae</i> !			5864	44		
Non-ESBL			2394	52		
ESBL			540	38		
<i>Morganella morganii</i>						
<i>Proteus mirabilis</i>						
<i>Providencia stuartii</i>						
<i>Pseudomonas aeruginosa</i> \$						
<i>Serratia marcescens</i>						
<i>Stenotrophomonas maltophilia</i>						



All NYC 2021	Beta-lactams											
	Ampicillin		Cefazolin		Cefoxitin		Ceftriaxone		Meropenem		Oxacillin	
Gram Positive	n	%	n	%	n	%	n	%	n	%	n	%
<i>Enterococcus faecalis</i>	7621	99										
<i>Enterococcus faecium</i>	1974	13										
<i>Propionibacterium acnes</i>					142	100			142	100		
Coagulase Negative <i>Staphylococci</i>			1080	48							1264	45
<i>Staphylococcus aureus</i> ~			5188	70							8699	61
MRSA											2106	0
MSSA							161	100			4688	100
<i>Staphylococcus epidermidis</i>											2403	34
<i>Staphylococcus lugdunensis</i>			200	87							200	87
<i>Streptococcus pyogenes</i> (GAS)	122	99										
<i>Streptococcus agalactiae</i> (GBS)	1376	98					848	100				
<i>Streptococcus anginosus</i> group							316	98				
<i>Streptococcus mitis</i>	107	76					199	95				
<i>Streptococcus pneumoniae</i>							50	100				
Non-Meningitis							212 228	97 99 @				
Meningitis							250 228	84 94 @				



All NYC 2021	Beta-lactams				Inhibitor Combo		Quinolones				Aminoglycosides	
	Penicillin G		Penicillin VK		Ampicillin-Sulbactam		Ciprofloxacin		Levofloxacin		Gentamicin	
Gram Positive	n	%	n	%	n	%	n	%	n	%	n	%
<i>Enterococcus faecalis</i>	2489	99			142	100	3035	80	5315	82	481	83
<i>Enterococcus faecium</i>	697	19					679	10	997	12		
<i>Propionibacterium acnes</i>												
Coagulase Negative <i>Staphylococci</i>							236	61				
<i>Staphylococcus aureus</i> ~							4074	65	4255	71	3300	94
MRSA							464	44	1613	49	827	92
MSSA	452	5					575	87	2065	91	1118	98
<i>Staphylococcus epidermidis</i>							1023	67	1875	59	1314	81
<i>Staphylococcus lugdunensis</i>							92	97				
<i>Streptococcus pyogenes</i> (GAS)	87	100							89	96		
<i>Streptococcus agalactiae</i> (GBS)	562	99							1376	98		
<i>Streptococcus anginosus</i> group									316	95		
<i>Streptococcus mitis</i>									199	88		
<i>Streptococcus pneumoniae</i>	93	91	61	54					225 228	100 97 @		
Non-Meningitis	101 228	92 98 @										
Meningitis	169 228	51 68 @										

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Manhattan 2021	Quinolones				Aminoglycosides						Tigecyclines	
	Ciprofloxacin		Levofloxacin		Amikacin		Gentamicin		Tobramycin		Tetracycline	
Gram Negative	n	%	n	%	n	%	n	%	n	%	n	%
<i>Acinetobacter baumannii</i>	255	58	305	54	285	75	366	61	225	67	205	68
2020 + 2021	142	71	142	73			142	81				
<i>Bacteroides fragilis</i>												
<i>Citrobacter freundii</i>	93	83	264	84	315	99	315	91	264	90	141	79
<i>Citrobacter koseri</i>	240	98	198	98	274	98	274	99	131	99	110	93
<i>Enterobacter cloacae</i>	834	84	1243	87	1378	98	1378	95	937	94	667	76
<i>Escherichia coli</i> !	3487	67	11180	70	11180	99	11180	87	11180	88	6792	63
Non-ESBL	4376	65	3629	68	4376	99	4376	88				
ESBL	872	12	870	15	872	94	872	68				
<i>Haemophilus influenzae</i>												
<i>Klebsiella aerogenes</i>	217	96	393	97	521	100	521	99	393	99	310	91
2020 + 2021	209	90	209	91	161	99	161	99				
<i>Klebsiella oxytoca</i>	235	90	531	96	646	100	646	95	465	94	262	88
2020 + 2021	115	90	115	91								
<i>Klebsiella pneumoniae</i> !	1285	80	3772	86	3811	98	3811	91	3772	89	2233	70
Non-ESBL	1774	89			1774	99	1774	97				
ESBL	455	16	442	33	455	90	455	66				
<i>Morganella morganii</i>	331	71	480	72	555	98	555	85	335	88		
<i>Proteus mirabilis</i>	1512	69	2303	73	2483	97	2483	88	1641	89		
<i>Pseudomonas aeruginosa</i> \$	2485	78	4026	75	4086	96	4086	85	2843	96		
<i>Serratia marcescens</i>	407	90	682	91	820	99	820	97	587	87	439	13
<i>Stenotrophomonas maltophilia</i>			612	88								



Manhattan 2021	Sulfonamides		Lincosamides		Urine Only			
	Trimethoprim-sulfamethoxazole		Clindamycin		Nitrofurantoin		Fosfomycin	
Gram Negative	n	%	n	%	n	%	n	%
<i>Acinetobacter baumannii</i>	366	54						
2020 + 2021	142	70						
<i>Bacteroides fragilis</i>			95	61				
<i>Citrobacter freundii</i>	315	79			225	91		
<i>Citrobacter koseri</i>	274	98			107	93		
<i>Enterobacter cloacae</i>	1378	82			1085	33		
<i>Escherichia coli</i> !	11180	66			11180	97	6797	97
Non-ESBL	4376	67			4376	96		
ESBL	872	37			872	90		
<i>Haemophilus influenzae</i>	41	68						
<i>Klebsiella aerogenes</i>	521	97			298	17		
2020 + 2021	161	97						
<i>Klebsiella oxytoca</i>	646	89			465	95		
2020 + 2021								
<i>Klebsiella pneumoniae</i> !	3811	78			3772	46		
Non-ESBL	1774	88			1774	44		
ESBL	455	20			455	32		
<i>Morganella morganii</i>	555	69						
<i>Proteus mirabilis</i>	2483	77						
<i>Pseudomonas aeruginosa</i> \$								
<i>Serratia marcescens</i>	820	98						
<i>Stenotrophomonas maltophilia</i>	614	97						



Manhattan 2021	Beta-lactams								Quinolones		Tetracyclines	
	Ampicillin		Ceftriaxone		Oxacillin		Penicillin G		Levofloxacin		Tetracycline	
Gram Positive	n	%	n	%	n	%	n	%	n	%	n	%
<i>Enterococcus faecalis</i>	4579	98					1796	98	2452	85	3314	22
<i>Enterococcus faecium</i>	1365	12					539	12	461	7	991	26
<i>Staphylococcus aureus</i> ~					4996	62			3121	72	4996	85
MRSA					1534	0			988	52	2647	73
MSSA					3701	100			1165	91	3701	93
<i>Staphylococcus epidermidis</i>					1768	31			1240	54	1768	82
<i>Streptococcus pyogenes</i> (GAS)												
<i>Streptococcus agalactiae</i> (GBS)	962	98							962	98	498	15
<i>Streptococcus mitis</i>			179	95					179	87		
<i>Streptococcus pneumoniae</i>									134 193	100 97 @	117	66
Non-Meningitis			136 193	97 99 @			193	98 @				
Meningitis			174 193	83 94 @			108 193	49 67 @				

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Manhattan 2021	Synergy				Urine Only	
	Gentamicin		Streptomycin		Nitrofurantoin	
	n	%	n	%	n	%
Gram Positive						
<i>Enterococcus faecalis</i>	3417	79	2335	86	4300	98
<i>Enterococcus faecium</i>	957	68	504	58	1144	45
<i>Staphylococcus aureus</i> ~					1045	98
MRSA	942	92				
MSSA	1445	98				
<i>Staphylococcus epidermidis</i>	822	79				
<i>Streptococcus pyogenes</i> (GAS)						
<i>Streptococcus agalactiae</i> (GBS)						
<i>Streptococcus mitis</i>						
<i>Streptococcus pneumoniae</i>						
Non-Meningitis						
Meningitis						

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Brooklyn 2021	Beta-lactams						Inhibitor Combinations			
	Ceftriaxone		Imipenem		Meropenem		Ampicillin-Sulbactam		Piperacillin-Tazobactam	
Gram Negative	n	%	n	%	n	%	n	%	n	%
<i>Acinetobacter baumannii</i>	93	24 #	240	49 ?	253	42 ?#	253	58 ?		
<i>Citrobacter freundii</i>	84	79	83	94	84	99				
<i>Enterobacter cloacae</i>	338	70	313	93	338	96				
<i>Escherichia coli</i>	4892	82	4588	100	4892	99	4892	54		
<i>Klebsiella aerogenes</i>	97	68			97	99				
<i>Klebsiella oxytoca</i>	164	93 &	164	99 &	164	100 &	164	72 &		
<i>Klebsiella pneumoniae</i>	1533	75	1366	95	1533	94	1533	64		
<i>Morganella morganii</i>	148	89			148	100	148	13		
<i>Proteus mirabilis</i>	903	74			621	100	903	79		
<i>Pseudomonas aeruginosa</i> \$			1260	73	1332	80				
<i>Serratia marcescens</i>	243	78			243	96				
<i>Stenotrophomonas maltophilia</i>										



Brooklyn 2021	Quinolones				Aminoglycosides					
	Ciprofloxacin		Levofloxacin		Amikacin		Gentamicin		Tobramycin	
Gram Negative	n	%	n	%	n	%	n	%	n	%
<i>Acinetobacter baumannii</i>	228	37 ?#	253	42 ?#	253	53 ?	253	50 ?#	253	64 ?#
<i>Citrobacter freundii</i>			84	94	84	100	84	94	84	96
<i>Enterobacter cloacae</i>	241	87	338	91	338	98	338	92	338	92
<i>Escherichia coli</i>	3550	67	4892	69	4892	99	4892	87	4892	87
<i>Klebsiella aerogenes</i>	97	94	97	93	97	99	97	99	97	99
<i>Klebsiella oxytoca</i>			164	98 &	164	100 &	164	96 &	164	94 &
<i>Klebsiella pneumoniae</i>	1199	73	1533	80	1533	97	1533	91	1533	85
<i>Morganella morganii</i>			148	69	148	100	148	87	148	91
<i>Proteus mirabilis</i>	621	55	903	63	903	99	903	81	903	84
<i>Pseudomonas aeruginosa</i> \$	1170	72	1332	72	1332	97	1332	85	1332	95
<i>Serratia marcescens</i>			243	82	243	99	243	97	243	90
<i>Stenotrophomonas maltophilia</i>			206	85						



Brooklyn 2021	Tetracyclines				Sulfonamide		Urine Only	
	Tigecycline		Tetracycline		Trimethoprim-sulfamethoxazole		Nitrofurantoin	
Gram Negative	n	%	n	%	n	%	n	%
<i>Acinetobacter baumannii</i>			93	73 #	253	62 ?#		
<i>Citrobacter freundii</i>					84	90		
<i>Enterobacter cloacae</i>	313	98	201	81	338	84		
<i>Escherichia coli</i>	4668	100	3060	66	4892	68		
<i>Klebsiella aerogenes</i>					97	93	83	90
<i>Klebsiella oxytoca</i>	164	100 &			164	92 &	313	42 &
<i>Klebsiella pneumoniae</i>	1377	99	968	75	1533	75	4668	96
<i>Morganella morganii</i>					148	63		
<i>Proteus mirabilis</i>					903	70	164	91
<i>Pseudomonas aeruginosa</i> \$							1377	40
<i>Serratia marcescens</i>	243	100						
<i>Stenotrophomonas maltophilia</i>					206	98		



Brooklyn 2021	Beta-lactams						Quinolones				Tetracyclines	
	Ampicillin		Cefazolin		Oxacillin		Ciprofloxacin		Levofloxacin		Tetracycline	
Gram Positive	n	%	n	%	n	%	n	%	n	%	n	%
<i>Enterococcus faecalis</i>	1682	99					1333	75	1682	79	1682	26
<i>Enterococcus faecium</i>	332	19					270	15	332	19	325	33
<i>Staphylococcus aureus</i>			2249	65	2270	58					2270	93
<i>Streptococcus pneumoniae</i>									55	100		



Brooklyn 2021	Other											
	Clindamycin		Daptomycin		Erythromycin		Linezolid		Trimethoprim-sulfamethoxazole		Vancomycin	
Gram Positive	n	%	n	%	n	%	n	%	n	%	n	%
<i>Enterococcus faecalis</i>			1224	99			1682	99			1682	91
<i>Enterococcus faecium</i>			235	86			332	96			332	35
<i>Staphylococcus aureus</i>	2270	70			2270	44	2270	100	2270	95	2270	100
<i>Streptococcus pneumoniae</i>					55	53						



Brooklyn 2021	Urine Only	
	Nitrofurantoin	
Gram Positive	n	%
<i>Enterococcus faecalis</i>	1573	99
<i>Enterococcus faecium</i>		
<i>Staphylococcus aureus</i>	2270	100
<i>Streptococcus pneumoniae</i>		



Queens 2021	Beta-lactams											
	Ampicillin		Aztreonam		Cefepime		Cefoxitin		Ceftazidime		Ceftriaxone	
Gram Negative	n	%	n	%	n	%	n	%	n	%	n	%
<i>Acinetobacter baumannii</i>					146	47 ?			146	67 ?		
<i>Enterobacter cloacae</i>			205	82	205	95					205	78
<i>Escherichia coli</i>			2232	81	2232	88	2232	94			2232	81
<i>Klebsiella pneumoniae</i>			805	72	805	81	805	88			805	72
<i>Morganella morganii</i>			96	86	96	97					96	83
<i>Proteus mirabilis</i>	387	64	660	79	660	87	538	94			660	80
<i>Pseudomonas aeruginosa</i> \$			519	72	899	82			899	83		
<i>Serratia marcescens</i>			129	78	129	89					129	70



Queens 2021	Beta-lactams						Inhibitor Combinations			
	Ceftriaxone		Ertapenem		Meropenem		Ampicillin-Sulbactam		Piperacillin-Tazobactam	
Gram Negative	n	%	n	%	n	%	n	%	n	%
<i>Acinetobacter baumannii</i>							146	64 ?		
<i>Enterobacter cloacae</i>	205	78	205	97	205	98			205	91
<i>Escherichia coli</i>	2232	81	2232	100	2232	100	2232	53	2232	85
<i>Klebsiella pneumoniae</i>	805	72	805	94	805	92	805	62	805	73
<i>Morganella morganii</i>	96	83	96	100	96	99	96	7	96	93
<i>Proteus mirabilis</i>	660	80	660	99	660	100	660	77	660	86
<i>Pseudomonas aeruginosa</i> \$					899	75			899	82
<i>Serratia marcescens</i>	129	70	129	93	129	92				



Queens 2021	Quinolones				Aminoglycosides						Tetracyclines	
	Ciprofloxacin		Levofloxacin		Amikacin		Gentamicin		Tobramycin		Tigecycline	
Gram Negative	n	%	n	%	n	%	n	%	n	%	n	%
<i>Acinetobacter baumannii</i>			146	45 ?	146	45 ?	146	45 ?	146	45 ?		
<i>Enterobacter cloacae</i>			159	95	205	99	205	97	159	94	159	97
<i>Escherichia coli</i>			2232	65	2232	99	2232	86	2232	85	2232	100
<i>Klebsiella pneumoniae</i>			805	72	805	94	805	89	805	80	805	99
<i>Morganella morganii</i>			96	65	96	98	96	87	96	90		
<i>Proteus mirabilis</i>	387	59	660	61	660	97	660	83	538	84		
<i>Pseudomonas aeruginosa</i> \$	519	71	899	69	899	97	899	85	796	96		
<i>Serratia marcescens</i>			129	68	129	94	129	86	129	72		



Queens 2021	Sulfonamide		Urine Only	
	Trimethoprim-sulfamethoxazole		Nitrofurantoin	
Gram Negative	n	%	n	%
<i>Acinetobacter baumannii</i>				
<i>Enterobacter cloacae</i>	167	87	75	70
<i>Escherichia coli</i>	2232	67	2232	98
<i>Klebsiella pneumoniae</i>	805	76	518	44
<i>Morganella morganii</i>				
<i>Proteus mirabilis</i>	660	72		
<i>Pseudomonas aeruginosa</i> \$				
<i>Serratia marcescens</i>	129	94		



Queens 2021	Beta-lactams		Lipopeptides		Quinolones		Oxazolidinone		Tetracyclines		Glycopeptide	
	Ampicillin		Daptomycin		Levofloxacin		Linezolid		Tetracycline		Vancomycin	
Gram Positive	n	%	n	%	n	%	n	%	n	%	n	%
<i>Enterococcus faecalis</i>	836	100	836	99	657	78	836	99	836	20	836	94
<i>Enterococcus faecium</i>	161	11			161	9	161	99	161	18	161	25



Queens 2021	Synergy				Urine Only	
	Gentamicin		Streptomycin		Nitrofurantoin	
Gram Positive	n	%	n	%	n	%
<i>Enterococcus faecalis</i>	519	76	390	79	831	98
<i>Enterococcus faecium</i>	98	66			143	20

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Pediatrics 2021	Beta-lactams						Inhibitor Combinations			
	Ceftriaxone		Ertapenem		Meropenem		Ampicillin-Sulbactam		Piperacillin-Tazobactam	
	n	%	n	%	n	%	n	%	n	%
Gram Negative										
<i>Acinetobacter baumannii</i>					33	84 ?	33	84 ?		
<i>Enterobacter cloacae</i>	50	67	83	91	101	99				
<i>Escherichia coli</i>	1837	91	1595	100	1837	100	1837	53		
<i>Klebsiella oxytoca</i>	55	92			55	100	55	76		
<i>Klebsiella pneumoniae</i>	400	89	335	99	400	99	400	74		
<i>Proteus mirabilis</i>	156	95	138	98	156	100	156	91		
<i>Pseudomonas aeruginosa</i> \$					375	92				
<i>Serratia marcescens</i>	73	73	82	96	112	98				
<i>Stenotrophomonas maltophilia</i>										



Pediatrics 2021	Quinolones				Aminoglycosides					
	Ciprofloxacin		Levofloxacin		Amikacin		Gentamicin		Tobramycin	
Gram Negative	n	%	n	%	n	%	n	%	n	%
<i>Acinetobacter baumannii</i>	33	84 ?	33	84 ?	33	87 ?	33	87 ?	33	87 ?
<i>Enterobacter cloacae</i>			101	94	101	98	101	95	101	95
<i>Escherichia coli</i>	741	82	1837	83	1837	100	1837	88	1837	90
<i>Klebsiella oxytoca</i>			55	97	55	100	55	94	55	94
<i>Klebsiella pneumoniae</i>	117	82	361	89	400	99	400	92	361	91
<i>Proteus mirabilis</i>	69	88	156	94	156	99	156	95	156	94
<i>Pseudomonas aeruginosa</i> \$	206	86	375	86	375	95	375	82	375	93
<i>Serratia marcescens</i>	59	69	112	86	112	98	112	84	112	70
<i>Stenotrophomonas maltophilia</i>			89	84						



Pediatrics 2021	Tetracyclines				Sulfonamide		Urines Only	
	Tigecycline		Tetracycline		Trimethoprim-sulfamethoxazole		Nitrofurantoin	
	n	%	n	%	n	%	n	%
Gram Negative								
<i>Acinetobacter baumannii</i>								
<i>Enterobacter cloacae</i>					101	82	101	30
<i>Escherichia coli</i>	1011	100	1171	68	1837	68	1837	98
<i>Klebsiella oxytoca</i>					55	92	55	88
<i>Klebsiella pneumoniae</i>	149	99	259	79	400	87	355	49
<i>Proteus mirabilis</i>					156	91		
<i>Pseudomonas aeruginosa</i> \$								
<i>Serratia marcescens</i>	59	97	69	12	112	97		
<i>Stenotrophomonas maltophilia</i>					89	94		



Pediatrics 2021	Beta-lactams						Quinolones				Aminoglycosides	
	Ampicillin		Ceftriaxone		Oxacillin		Ciprofloxacin		Levofloxacin		Gentamicin	
Gram Positive	n	%	n	%	n	%	n	%	n	%	n	%
<i>Enterococcus faecalis</i>	398	100					170	93	398	93		
<i>Staphylococcus aureus</i> ~					1378	64	548	77	889	80	319	96
MRSA					358	0						
MSSA					677	100						
<i>Staphylococcus epidermidis</i>					185	28			164	68	73	64
<i>Streptococcus pneumoniae</i>									66	100		
Non-Meningitis			66	95								
Meningitis			66	81								

[illegible]



Pediatrics 2021	Other		Synergy				Urine Only	
	Vancomycin		Gentamicin		Streptomycin		Nitrofurantoin	
Gram Positive	n	%	n	%	n	%	n	%
<i>Enterococcus faecalis</i>	398	99	181	89	250	95	393	100
<i>Staphylococcus aureus</i> ~	1378	100					548	100
MRSA	421	100						
MSSA	721	100						
<i>Staphylococcus epidermidis</i>	185	100						
<i>Streptococcus pneumoniae</i>								
Non-Meningitis								
Meningitis								



ED 2021	Beta-lactams											
	Ampicillin		Aztreonam		Cefazolin		Cefepime		Cefoxitin		Ceftazidime	
Gram Negative	n	%	n	%	n	%	n	%	n	%	n	%
<i>Enterobacter cloacae</i>							172	87			172	70
<i>Escherichia coli</i>	4688	46	2150	88	4688	34	4688	90	4054	95	4482	92
<i>Klebsiella aerogenes</i>							78	100			68	85
<i>Klebsiella oxytoca</i>							102	97			102	97
<i>Klebsiella pneumoniae</i>			444	84	1149	30	1149	87	1010	94	1074	89
<i>Morganella morganii</i>							92	94			92	75
<i>Proteus mirabilis</i>	821	66	500	77	779	37	821	87	534	94	745	94
<i>Pseudomonas aeruginosa</i> \$			431	76			694	89			694	89



ED 2021	Beta-lactams								Inhibitor Combination			
	Ceftriaxone		Ertapenem		Imipenem		Meropenem		Ampicillin-Sulbactam		Piperacillin-Tazobactam	
Gram Negative	n	%	n	%	n	%	n	%	n	%	n	%
<i>Enterobacter cloacae</i>	172	64					172	100	101	24	172	76
<i>Escherichia coli</i>	4688	87	2150	99	2506	99	4688	100	4688	57	4688	97
<i>Klebsiella aerogenes</i>	68	83					78	100			78	88
<i>Klebsiella oxytoca</i>	102	91					102	99	67	74	102	95
<i>Klebsiella pneumoniae</i>	1149	86	444	97	741	98	1149	98	1149	75	1149	92
<i>Morganella morganii</i>	92	82					92	99			92	96
<i>Proteus mirabilis</i>	821	84	500	99			821	100	821	82	821	97
<i>Pseudomonas aeruginosa</i> \$					351	85	694	88			694	86



ED 2021	Quinolones				Aminoglycosides					
	Ciprofloxacin		Levofloxacin		Amikacin		Gentamicin		Tobramycin	
Gram Negative	n	%	n	%	n	%	n	%	n	%
<i>Enterobacter cloacae</i>	161	83	172	81	172	99	172	94	109	93
<i>Escherichia coli</i>	2744	68	4688	69	4688	99	4688	88	4688	88
<i>Klebsiella aerogenes</i>			78	96	78	100	78	100	78	100
<i>Klebsiella oxytoca</i>			67	100	102	100	102	96	67	98
<i>Klebsiella pneumoniae</i>	780	80	1149	84	1149	98	1149	92	1149	90
<i>Morganella morganii</i>					92	99	92	88		
<i>Proteus mirabilis</i>	627	63	821	69	821	98	821	84	633	85
<i>Pseudomonas aeruginosa</i> \$	578	74	694	74	694	95	694	87	535	97

[illegible]



ED 2021	Beta-lactams				Quinolones				Aminoglycosides		Tetracycline	
	Ampicillin		Oxacillin		Ciprofloxacin		Levofloxacin		Gentamicin		Tetracycline	
Gram Positive	n	%	n	%	n	%	n	%	n	%	n	%
<i>Enterococcus faecalis</i>	1323	98			736	81	960	83			1246	22
<i>Enterococcus faecium</i>	143	12			98	10	98	11			143	27
<i>Staphylococcus aureus</i> ~			1357	60	747	68	1072	75	740	96	1357	82
MRSA							244	66			533	64
MSSA			536	100			228	92			536	90
<i>Staphylococcus epidermidis</i>			461	41			395	67	450	87	461	80



ED 2021	Other											
	Clindamycin		Daptomycin		Erythromycin		Linezolid		Trimethoprim-sulfamethoxazole		Vancomycin	
Gram Positive	n	%	n	%	n	%	n	%	n	%	n	%
<i>Enterococcus faecalis</i>			571	97			1276	97			1323	94
<i>Enterococcus faecium</i>							143	99			143	30
<i>Staphylococcus aureus</i> ~	1357	75	756	100	747	46	1357	100	1357	96	1357	100
MRSA	533	71	456	100			456	100	533	96	533	100
MSSA	536	76	407	100			407	100	536	98	536	100
<i>Staphylococcus epidermidis</i>	461	57							395	67	461	99



ED 2021	Synergy				Urine Only	
	Gentamicin		Streptomycin		Nitrofurantoin	
Gram Positive	n	%	n	%	n	%
<i>Enterococcus faecalis</i>	317	87	309	88	1323	98
<i>Enterococcus faecium</i>					143	24
<i>Staphylococcus aureus</i> ~					797	99
MRSA						
MSSA						
<i>Staphylococcus epidermidis</i>						