

Year	2016	2017	2018	2019	
MSH Blood Culture Specimens: % Susceptibility					
Gram Positive Organisms					
<i>Staphylococcus aureus</i>	31	56	69	77	# isolates
Ampicillin					
Amoxicillin/Clavulanic acid			100	100	
Cloxacillin	100	79	86	87	
Cefazolin	100	79	86	87	
High Level Gentamycin					
Vancomycin	100	100	100	100	
<i>Coagulase Negative Staphylococcus</i>	28	43	35	34	# isolates
Ampicillin					
Amoxicillin/Clavulanic acid					
Cloxacillin	33	50	40	41	
Cefazolin	50	60	40	41	
High Level Gentamycin					
Vancomycin	100	100	100	100	
<i>Enterococcus faecalis</i>	9	19	29	21	# isolates
Ampicillin	100	100	100	100	
Amoxicillin/Clavulanic acid					
Cloxacillin					
Cefazolin					
High Level Gentamycin	89	79	81	90	
Vancomycin	100	100	100	100	

	90% or greater susceptible
	50-89% susceptible
	less than 50% susceptible
	antibiotic not tested
	less than 30 organisms reported
R	Intrinsic/Acquired Resistance
	C. freundii is intrinsically resistant to Amoxicillin/Clavulanic Acid
	E. aerogens and E. cloacae are intrinsically resistant to Amoxicillin/Clavulanic Acid
	Results for this drug not available - as per CLSI these drugs lack efficacy and are not suitable for AST or treatment of infection

PLEASE NOTE
 Exercise caution in interpretation if fewer than 30 organisms are reported for a given species. It is recommended that at least 30 organism isolates are present for a given reporting period in order to perform valid statistical comparisons.

Year	2016	2017	2018	2019	
MSH Blood Culture Specimens: % Susceptibility					
Gram Negative Organisms					
<i>Escherichia coli (excluding ESBL)</i>	131	163	163		# isolates
Ampicillin	61	64	53		
Amoxicillin/Clavulanic acid		85	82		
Cefazolin	89	81	69		
Ceftriaxone	98	97	97		
Ceftazidime	97	97	98		
Piperacillin/Tazobactam	96	98	96		
Ertapenem	99	100	100		
Meropenem	100	100	100		
Gentamicin	92	91	90		
Tobramycin	91	92	92		
Amikacin	100	100	100		
Trimethoprim/Sulfamethoxazole	82	85	78		
Ciprofloxacin	76	82	78		
<i>Escherichia coli (including ESBL)</i>	61	159	189	201	# isolates
Ampicillin	52	50	56	43	
Amoxicillin/Clavulanic acid			82	79	
Cefazolin	89	72	69	56	
Ceftriaxone	95	80	83	78	
Ceftazidime	95	79	83	79	
Piperacillin/Tazobactam	95	96	97	95	
Ertapenem	100	99	100	100	
Meropenem	100	100	100	100	
Gentamicin	97	87	89	90	
Tobramycin	97	83	88	90	
Amikacin	100	99	99	100	
Trimethoprim/Sulfamethoxazole	77	73	78	72	
Ciprofloxacin	79	67	74	70	
<i>Klebsiella Pneumoniae</i>	17	33	36	58	# isolates
Ampicillin		R	R	R	
Amoxicillin/Clavulanic acid			94	97	
Cefazolin	82	94	86	86	
Ceftriaxone	88	94	92	93	
Ceftazidime	88	94	92	95	
Piperacillin/Tazobactam	88	100	92	100	
Ertapenem	100	100	97	100	
Meropenem	100	100	97	100	
Gentamicin	88	97	92	98	
Tobramycin	82	97	92	98	
Amikacin	100	100	100	100	
Trimethoprim/Sulfamethoxazole	82	91	94	90	
Ciprofloxacin	82	100	86	93	

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Year	2016	2017	2018	2019	
<i>Enterobacter spp</i>	7	13	16	17	# isolates
Ampicillin		R	R	R	
Amoxicillin/Clavulanic acid			6	6	
Cefazolin		R	R	R	
Ceftriaxone	71	62	63	76	
Ceftazidime	71	62	63	82	
Piperacillin/Tazobactam	83	67	64	88	
Ertapenem	100	100	81	88	
Meropenem	100	100	94	100	
Gentamicin	86	85	100	94	
Tobramycin	86	85	100	94	
Amikacin	100	100	100	100	
Trimethoprim/Sulfamethoxazole	86	92	94	94	
Ciprofloxacin	86	92	100	100	
<i>Pseudomonas aeruginosa</i>	9	21	23	21	# isolates
Ampicillin					
Amoxicillin/Clavulanic acid			R	R	
Cefazolin					
Ceftriaxone					
Ceftazidime	89	95	91	81	
Piperacillin/Tazobactam	89	100	91	90	
Ertapenem					
Meropenem	100	100	87	86	
Gentamicin	100	100	100	100	
Tobramycin	100	100	100	100	
Amikacin	100	100	100	100	
Trimethoprim/Sulfamethoxazole					
Ciprofloxacin	100	100	100	95	

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Year 2016 2017 2018 2019
MSH Urine Culture Specimens: % Susceptibility

Gram Negative Organisms

	2016	2017	2018	2019	# isolates
<i>Escherichia coli (excluding ESBL)</i>	975	951	869		
Ampicillin	58	57	58		
Amoxicillin/Clavulanic acid		84	83		
Cefazolin	97	96	96		
Ceftriaxone	98	99	98		
Ceftazidime	98	98	98		
Piperacillin/Tazobactam	96	96	96		
Ertapenem	100	100	100		
Meropenem	100	100	100		
Gentamicin	91	92	92		
Tobramycin	91	93	93		
Amikacin	100	100	100		
Nitrofurantoin	98	97	97		
Trimethoprim/Sulfamethoxazole	78	78	80		
Ciprofloxacin	83	85	85		
<i>Escherichia coli (including ESBL)</i>	598	1083	1054	996	# isolates
Ampicillin	57	52	51	51	
Amoxicillin/Clavulanic acid			82	81	
Cefazolin		87	86	83	
Ceftriaxone	97	89	89	85	
Ceftazidime	97	89	89	86	
Piperacillin/Tazobactam	96	95	95	95	
Ertapenem	100	100	100	100	
Meropenem	100	100	100	100	
Gentamicin	91	89	91	90	
Tobramycin	91	87	91	89	
Amikacin	100	100	100	100	
Nitrofurantoin	99	98	96	95	
Trimethoprim/Sulfamethoxazole	78	75	74	75	
Ciprofloxacin	85	77	79	79	
Cephalothin	50				
<i>Klebsiella pneumoniae</i>	97	169	129	150	# isolates
Ampicillin		R	R	R	
Amoxicillin/Clavulanic acid			91	91	
Cefazolin		92	86	89	
Ceftriaxone	98	92	88	91	
Ceftazidime	98	92	87	91	
Piperacillin/Tazobactam	94	96	92	94	
Ertapenem	99	99	98	99	
Meropenem	99	99	98	99	
Gentamicin	99	94	93	97	
Tobramycin	99	91	91	97	
Amikacin	100	99	100	99	
Nitrofurantoin	45	39	35	29	
Trimethoprim/Sulfamethoxazole	95	87	85	89	
Ciprofloxacin	97	91	91	90	

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Year	2016	2017	2018	2019	
<i>Enterobacter spp</i>	24	27	47	38	# isolates
Ampicillin		R	R	R	
Amoxicillin/Clavulanic acid			2	0	
Cefazolin		R	R	R	
Ceftriaxone	83	74	77	68	
Ceftazidime	83	74	79	79	
Piperacillin/Tazobactam	83	76	79	71	
Ertapenem	96	100	87	89	
Meropenem	100	100	100	100	
Gentamicin	100	96	100	97	
Tobramycin	100	96	100	97	
Amikacin	100	100	100	100	
Nitrofurantoin	50	52	43	42	
Trimethoprim/Sulfamethoxazole	96	96	96	97	
Ciprofloxacin	96	100	96	97	
<i>Proteus mirabilis</i>	46	68	79	90	# isolates
Ampicillin	83	91	80	82	
Amoxicillin/Clavulanic acid			99	98	
Cefazolin		96	91	98	
Ceftriaxone	96	97	95	100	
Ceftazidime	96	97	95	98	
Piperacillin/Tazobactam	98	100	99	100	
Ertapenem	100	100	100	100	
Meropenem	100	100	100	100	
Gentamicin	89	94	90	93	
Tobramycin	89	96	94	96	
Amikacin	100	100	100	100	
Nitrofurantoin		R	R	R	
Trimethoprim/Sulfamethoxazole	76	91	90	86	
Ciprofloxacin	96	96	95	88	
<i>Pseudomonas aeruginosa</i>	48	77	65	88	# isolates
Ampicillin					
Amoxicillin/Clavulanic acid			R	R	
Cefazolin					
Ceftriaxone					
Ceftazidime	85	86	89	92	
Piperacillin/Tazobactam	90	92	92	94	
Ertapenem					
Meropenem	92	91	92	88	
Gentamicin	94	94	97	98	
Tobramycin	98	100	98	99	
Amikacin	98	100	97	98	
Nitrofurantoin					
Trimethoprim/Sulfamethoxazole					
Ciprofloxacin	94	96	89	94	

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MSH Urine Culture Specimens: % Susceptibility					
Gram Positive Organisms					
<i>Staphylococcus Aureus</i>	11	21	30	29	# isolates
Ampicillin					
Amoxicillin/Clavulanic Acid			100	96	
Cefazolin	100	65	83	93	
Cloxacillin	100	62	83	93	
Trimethoprim/Sulfamethoxazole	100	100	100	100	
Ciprofloxacin	100	62	80	83	
Nitrofurantoin	100	100	100	97	
Tetracyclin	91	86	93	100	
Rifampin	100	100	100	100	
Vancomycin	100	100	100	100	
<i>Enterococcus Species</i>	144	221	246	222	# isolates
Ampicillin	88	86	88	87	
Amoxicillin/Clavulanic Acid					
Cefazolin					
Cloxacillin					
Trimethoprim/Sulfamethoxazole					
Ciprofloxacin	72	72	73	75	
Nitrofurantoin	90	90	87	86	
Tetracyclin	26	29	26	31	
Rifampin					
Vancomycin	97	100	99	100	
<i>Enterococcus faecalis</i>			5	10	# isolates
Ampicillin			100	100	
Amoxicillin/Clavulanic Acid					
Cefazolin					
Cloxacillin					
Trimethoprim/Sulfamethoxazole					
Ciprofloxacin			60	80	
Nitrofurantoin			100	100	
Tetracyclin			20	20	
Rifampin					
Vancomycin			100	100	
<i>Enterococcus faecium</i>			4	3	# isolates
Ampicillin			0	0	
Amoxicillin/Clavulanic Acid					
Cefazolin					
Cloxacillin					
Trimethoprim/Sulfamethoxazole					
Ciprofloxacin			0	0	
Nitrofurantoin			0	0	
Tetracyclin			50	67	
Rifampin					
Vancomycin			100	100	

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Year 2016 2017 2018 2019
All locations *S. pneumoniae* Specimens: % Susceptibility

Gram Positive Organisms

Blood culture and spinal fluid specimens	2016	2017	2018	2019	# isolates
Penicillin V (oral)					
Penicillin G (parenteral)					
Ceftriaxone					
Levofloxacin	100	100	100	100	
Meropenem	100	94	94	95	
Vancomycin	100	100	100	100	
Trimethoprim/Sulfamethoxazole					
Erythromycin					
Meningeal interpretation	33	42	38	41	# isolates
Penicillin V (oral)					
Penicillin G (parenteral)	85	90	89	90	
Ceftriaxone	97	95	95	98	
Levofloxacin					
Meropenem					
Vancomycin					
Trimethoprim/Sulfamethoxazole					
Erythromycin					
Non-meningeal interpretation	33	42	38	41	# isolates
Penicillin V (oral)					
Penicillin G (parenteral)	100	100	97	100	
Ceftriaxone	100	100	100	100	
Levofloxacin					
Meropenem					
Vancomycin					
Trimethoprim/Sulfamethoxazole					
Erythromycin					
All specimens except blood cultures and spinal fluid specimens	29	40	30	30	# isolates
Penicillin V (oral)	79	72	90	83	
Penicillin G (parenteral)	100	91	100	100	
Ceftriaxone	100	92	100	100	
Levofloxacin	97	97	97	100	
Meropenem					
Vancomycin					
Trimethoprim/Sulfamethoxazole	90	88	86	80	
Erythromycin	66	60	76	57	

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