

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
MSH All Specimens: % Susceptibility															
Gram Negative Organisms															
<i>E. coli</i> (excluding ESBL)												1069	1055	995	# isolates
Ampicillin												58	58	57	
Amoxicillin/Clavulanic acid													84	82	
Cefazolin												96	94	91	
Ceftriaxone												98	98	98	
Ceftazidime												98	98	98	
Piperacillin/Tazobactam												95	96	96	
Ertapenem												100	100	100	
Meropenem												100	100	100	
Gentamicin												91	92	92	
Tobramycin												91	93	93	
Amikacin												100	100	100	
Trimethoprim/Sulfamethoxazole												78	78	80	
Ciprofloxacin												83	85	84	
<i>E. coli</i> (including ESBL)	857	902	946	1120	1061	1178	1232	1263	1497	640	1187	1167	1151	# isolates	
Ampicillin	61	64	63	59	58	58	55	56	52	55	57	52	52	50	
Amoxicillin/Clavulanic acid													82	80	
Cefazolin	91	91	92	87	89	87	87	87	87	94	86	84	79		
Ceftriaxone	96	97	97	92	94	91	93	90	90	97	88	89	84		
Ceftazidime		96	97	92	94	91	93	90	91	90	97	88	88	85	
Piperacillin/Tazobactam		99	99	91	95	100	89	89	88	88	96	95	95	95	
Ertapenem											100	100	100	100	
Meropenem			100	100	100	100	100	100	100	100	100	100	100	100	
Gentamicin	94	94	93	91	91	92	90	89	89	91	89	90	90		
Tobramycin	93	94	92	91	91	91	89	89	87	89	92	88	90	89	
Amikacin											100	100	100	100	
Trimethoprim/Sulfamethoxazole	79	74	80	79	78	76	76	75	73	76	78	74	75	75	
Ciprofloxacin	87	89	85	80	83	82	82	80	80	80	84	77	80	77	
Piperacillin		72	69												
Imipenem		100													
<i>Klebsiella pneumoniae</i>											115	201	169	206	# isolates
Ampicillin												R	R	R	
Amoxicillin/Clavulanic acid													91	92	
Cefazolin											95	92	87	88	
Ceftriaxone											97	93	89	92	
Ceftazidime											97	93	88	92	
Piperacillin/Tazobactam											94	97	92	95	
Ertapenem											99	100	99	99	
Meropenem											99	100	99	100	
Gentamicin											98	95	93	98	
Tobramycin											97	92	91	97	
Amikacin											100	100	100	99	
Trimethoprim/Sulfamethoxazole											93	88	86	90	
Ciprofloxacin											95	93	90	91	

	90% or greater susceptible
	50-89% susceptible
	less than 50% susceptible
	antibiotic not tested
	less than 30 organisms reported
R	Intrinsic/Acquired Resistance
	<i>C. freundii</i> is intrinsically resistant to Amoxicillin/Clavulanic Acid
	<i>E. aerogens</i> and <i>E. cloacae</i> 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 preform valid statistical comparisons.

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	# isolates
<i>Enterobacter spp</i>		27	40	43	39	53	59	69	50	93	39	56	74	70	
Ampicillin	R	R	R	R	R	R	R	R	R	R		R	R	R	
Amoxicillin/Clavulanic acid													3	1	
Cefazolin	R	R	R	R	R	R	R	R	R	R	5	R	R	R	
Ceftriaxone		85	85	86	85	80	81	82	75	81	79	70	74	72	
Ceftazidime		85	85	86	85	80	78	81	73	81	79	70	77	81	
Piperacillin/Tazobactam		89	90	86	87	100	84	82	73	78	82	69	78	80	
Ertapenem											90	98	91	92	
Meropenem			100	100	97	100	100	100	98	100	100	100	99	100	
Gentamicin	93	100	100	93	98	94	97	97	100	99	97	95	100	97	
Tobramycin	90	100	100	95	100	94	97	96	98	99	97	95	100	97	
Amikacin											100	100	100	100	
Trimethoprim/Sulfamethoxazole	83	96	95	86	90	94	92	94	98	97	95	96	96	97	
Ciprofloxacin	90	93	100	95	95	93	90	96	98	96	95	96	97	97	
Piperacillin		85	82												
Imipenem		100													
<i>Proteus mirabilis</i>		65	64	84	72	104	84	86	95	98	58	84	94	115	# isolates
Ampicillin		75	86	83	72	75	76	76	79	79	81	87	77	82	
Amoxicillin/Clavulanic acid													99	98	
Cefazolin		86	95	95	94	87	90	89	91	86	93	94	84	88	
Ceftriaxone		98	100	96	99	96	96	97	100	97	95	98	95	100	
Ceftazidime		98	100	95	99	96	96	97	100	97	95	98	94	98	
Piperacillin/Tazobactam		100	100	99	99	100	100	98	100	96	98	99	99	100	
Ertapenem											100	100	100	100	
Meropenem				100	100	100	100	100	100	100	100	100	100	100	
Gentamicin		91	94	99	96	95	96	92	96	90	91	94	89	95	
Tobramycin		91	95	99	97	97	95	91	97	92	91	95	93	97	
Amikacin											100	99	100	100	
Trimethoprim/Sulfamethoxazole		85	86	87	79	83	81	90	88	86	78	88	85	86	
Ciprofloxacin		92	92	89	81	84	85	92	91	90	91	92	93	87	
Piperacillin		89	97												
<i>Pseudomonas aeruginosa</i>		74	86	71	102	92	89	84	106	129	84	160	147	160	# isolates
Ampicillin	R	R	R	R	R	R	R	R	R	R					
Amoxicillin/Clavulanic acid													R	R	
Cefazolin	R	R	R	R	R	R	R	R	R	R					
Ceftriaxone		R	R	R	R	R	R	R	R	R					
Ceftazidime		84	81	82	84	91	90	87	91	88	87	89	89	93	
Piperacillin/Tazobactam		97	99	91	88	90	92	81	84	80	92	94	92	96	
Ertapenem															
Meropenem			81	82	90	93	91	90	93	94	92	96	90	88	
Gentamicin	93	91	80	79	74	80	92	92	95	94	94	96	97	98	
Tobramycin	98	96	96	88	90	98	98	100	100	98	99	100	99	99	
Amikacin											96	99	99	97	
Trimethoprim/Sulfamethoxazole	R	R	R	R	R	R	R	R	R	R					
Ciprofloxacin	62	74	65	72	71	78	82	88	96	89	95	92	91	94	
Piperacillin		93	98												

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Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
<i>Citrobacter freundii</i> complex															# isolates
Ampicillin											8	26	29	32	
Amoxicillin/Clavulanic acid												R	R	R	
Cefazolin												R	R	R	
Ceftriaxone											75	69	86	63	
Ceftazidime											75	69	86	69	
Piperacillin/Tazobactam											75	72	86	77	
Ertapenem											100	96	100	100	
Meropenem											100	100	100	100	
Gentamicin											100	100	100	94	
Tobramycin											100	96	100	91	
Amikacin											100	100	100	100	
Trimethoprim/Sulfamethoxazole											100	92	97	91	
Ciprofloxacin											100	92	100	91	
<i>Klebsiella oxytoca</i>															# isolates
Ampicillin											6	R	R	R	
Amoxicillin/Clavulanic acid													82	94	
Cefazolin											69	79	73	76	
Ceftriaxone											75	92	89	92	
Ceftazidime											94	100	95	94	
Piperacillin/Tazobactam											75	92	87	94	
Ertapenem											100	100	100	100	
Meropenem											100	100	100	100	
Gentamicin											100	100	97	97	
Tobramycin											100	100	97	97	
Amikacin											100	100	97	100	
Trimethoprim/Sulfamethoxazole											94	100	97	100	
Ciprofloxacin											100	100	95	97	
<i>Klebsiella spp</i>															# isolates
Ampicillin	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
Cefazolin	87	92	86	92	92	91	91	94	90	85					
Ceftriaxone	96	99	95	96	97	96	96	97	96	92					
Gentamicin	93	99	95	99	98	97	97	98	98	96					
Tobramycin	92	95	94	98	98	96	97	97	98	95					
Trimethoprim/Sulfamethoxazole	86	94	96	94	95	90	92	92	93	89					
Ciprofloxacin	90	94	95	94	95	94	97	95	96	93					
Ceftazidime		99	97	96	97	97	96	97	96	92					
Piperacillin/Tazobactam		97	96	96	96	100	94	95	94	88					
Meropenem			100	100	100	99	99	100	100	99					
Piperacillin		73	71												
Imipenem		100													
<i>Citrobacter spp</i>															# isolates
Ampicillin	R														
Cefazolin	40														
Ceftriaxone															
Gentamicin	95														
Tobramycin	95														
Trimethoprim/Sulfamethoxazole	90														
Ciprofloxacin	85														

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Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	# isolates
<i>Serratia marcescens</i>		7	7												
Ampicillin	R	R	R												
Cefazolin	R	R	R												
Ceftriaxone		100	100												
Gentamycin	100	100	100												
Tobramycin	100	100	86												
Trimethoprim/Sulfamethoxazole	100	100	100												
Ciprofloxacin	80	100	100												
Piperacillin		100	100												
Piperacillin/Tazobactam		100	100												
Meropenem			100												
Ceftazidime		100	100												
Imipenem		100													

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MSH All Specimens: % Susceptibility															
Gram Positive Organisms															
<i>Staphylococcus aureus</i>	180	224	237	268	272	306	306	323	329	172	320	353	390	# isolates	
Ampicillin															
Amoxicillin/Clavulanic acid													100	99	
Cloxacillin	94	94	87	89	85	86	84	85	85	82	86	84	83	86	
Cefazolin	94	94	87	89	85	86	84	85	85	82	99	87	83	86	
Clindamycin	61	73	62	75	76	70	70	73	76	77					
Erythromycin	61	73	62	71	67	60	60	65	64	67					
Trimethoprim/Sulfamethoxazole	96														
Ciprofloxacin															
Tetracycline															
Rifampin															
Vancomycin	100	100	100	100	99	100	100	100	100	100					
Penicillin	11	18	17	20	14	17	R	R	R	R					
<i>Staph aureus MSSA</i>											148	270	294	337	# isolates
Ampicillin															
Amoxicillin/Clavulanic acid													100	100	
Cloxacillin											100	100	100	100	
Cefazolin											100	100	100	100	
Clindamycin											79	77	78	80	
Erythromycin											76	76	75	76	
Trimethoprim/Sulfamethoxazole											99	99	99	100	
Ciprofloxacin											91	89	91	90	
Tetracycline											99	95	97	96	
Rifampin											99	100	100	99	
Vancomycin											100	100	100	100	
<i>Staph aureus MRSA</i>											24	54	62	57	# isolates
Ampicillin															
Amoxicillin/Clavulanic acid													0	0	
Cloxacillin												R	R	R	
Cefazolin												R	R	R	
Clindamycin											75	63	68	65	
Erythromycin											25	30	32	37	
Trimethoprim/Sulfamethoxazole											100	100	100	100	
Ciprofloxacin											29	30	29	53	
Tetracycline											92	85	85	89	
Rifampin											100	96	100	98	
Vancomycin											100	100	100	100	

	See MSSA and MRSA
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	50-89% susceptible
	less than 50% susceptible
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Coagulase Negative Staph		24	49	42	55	50	52	60	52	73					# isolates
Penicillin	14	12	18	19	20	14	R	R	R	R					
Cloxacillin	53	63	54	40	55	33	62	51	46	51					
Cefazolin	53	63	54	40	55	33	62	51	46	51					
Clindamycin	63	54	38	65	72	50	63	61	64	67					
Erythromycin	63	54	38	40	50	37	48	40	45	37					
Trimethoprim/Sulfamethoxazole	96														
Vancomycin	100	100	100	98	100	100	100	100	100	100					
Enterococcus Species											166	279	292	293	# isolates
Ampicillin											86	84	88	88	
Amoxicillin/Clavulanic acid															
Cloxacillin															
Cefazolin															
Clindamycin															
Erythromycin															
Trimethoprim/Sulfamethoxazole															
Ciprofloxacin											73	72	74	75	
Tetracycline											28	31	30	32	
Rifampin															
Vancomycin											97	98	99	99	
Enterococcus faecalis													53	70	# isolates
Ampicillin													100	100	
Amoxicillin/Clavulanic acid															
Cloxacillin															
Cefazolin															
Clindamycin															
Erythromycin															
Trimethoprim/Sulfamethoxazole															
Ciprofloxacin													81	84	
Tetracycline													38	29	
Rifampin															
Vancomycin													100	100	
Enterococcus faecium													18	18	# isolates
Ampicillin													0	0	
Amoxicillin/Clavulanic acid															
Cloxacillin															
Cefazolin															
Clindamycin															
Erythromycin															
Trimethoprim/Sulfamethoxazole															
Ciprofloxacin													17	0	
Tetracycline													78	44	
Rifampin															
Vancomycin													100	100	

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