

LMHHealth Antibiotogram January - December 2024

Gram Positive (All Sources)

Percent Susceptible 2024	Number of Isolates	% Inducible Clindamycin Resistance	Aminoglycoside		Rifamycin		Penicillins			Cephalosporins	Folate Pathway Inhibitor	Fluoroquinolone	Glycopeptide	Lincomides	Lipopeptide	Macrolide	Oxazolidinone	Tetracycline
			Gentamicin	Tobramycin	Ampicillin ¹	Oxacillin ²	Penicillin	Ceftriaxone	Sulfamethoxazole / Trimethoprim	Ciprofloxacin	Levofloxacin	Vancomycin	Clindamycin	Daptomycin	Erythromycin ⁴	Linezolid	Doxycycline ⁵	
<i>Enterococcus faecium</i> ¹	26 ³		96 ^{3,3}		42 ³							73 ³		100 ³		100 ³		
<i>Enterococcus faecalis</i> ¹	406		92 ³		100							99		100 ³				98
<i>Staphylococcus aureus</i> (MSSA)	409	16	99	100		100			95	77	90	100	80		55	100	90	
<i>Staphylococcus aureus</i> (MRSA)	198	7	97	100		0			91			100	83	98	24	100	85	
<i>Coagulase negative staphylococcus</i>	160	21	89			55			84	49	50	100	59	100	42	100	69	
<i>Staphylococcus epidermis</i>	325	8	96	99		40			66	77	78	100	63	100	33	100	79	
<i>Staphylococcus lugdunensis</i>	63	2	96	100		83			98	96	100	100	88		86	100	95	
<i>Staphylococcus saprophyticus</i>	41	9	100	100		39			98	98	100	100	59		41	100	93	
<i>Streptococcus agalactiae</i> (GBS)	179	13					100	100				99	100	36		29	100	88
<i>Streptococcus anginosus</i> group ⁴	79						93	92				91	100	75		61		
<i>Streptococcus pneumoniae</i>	47						79/100 ¹	92/100 ³				98	100	83		70	100	83
<i>Streptococcus pyogenes</i> (GAS) ³	17 ³						100 ³	100 ³			100 ³		95 ³		95 ³		94	
<i>Streptococcus viridians</i> group ⁷	92						68	98			94	100	84				95	

Gram Positive Table Key

- 1) Rifampin to be used in combination only
- 2) Ampicillin predicts amoxicillin susceptibility
- 3) isolate numbers <30 may be statistically unreliable
- 4) Erythromycin predicts azithromycin or clarithromycin susceptibility
- 5) Gentamicin for synergy
- 6) S. anginosus group includes anginosus, constellatus, intermedius
- 7) S. viridians group includes mitis, sanguis, mutans, bovis, oralis
- 8) S. pneumoniae meningitis / non-meningitis breakpoint rates
- 9) Oxacillin predicts nafcillin, B-lactam combo agents, oral & parenteral cepheps, carbapenems.
- 10) Doxycycline is deduced from Tetracycline

Gram Negative (All Sources)

Percent Susceptible 2024	Number of Isolates	% ESBL Isolates	Aminoglycoside		Penicillin	B-Lactam/ inhibitor Combo	Cephalosporins				Carbapenems		Folate Pathway Inhibitor	Fluoroquinolones	Tetracycline	Monobactam			
			Gentamicin	Tobramycin			1st	2nd	3rd	4th	Ertapenem	Meropenem							
Ampicillin ¹	Ampicillin/ sulbactam ²	Piperacillin/ tazobactam	Cefazolin	Cefuroxime	Cephalexin ⁵	Cefazidime	Ceftriaxone	Cefepime	Ertapenem	Meropenem	Sulfamethoxazole/ Trimethoprim	Ciprofloxacin	Levofloxacin	Minocycline	Aztreonam				
Acinetobacter baumannii ³	5 ³		60 ³	60 ³		100 ³	60 ³				60 ³		67 ³	60 ³	60 ³	60 ³			
Citrobacter freundii complex ⁴	71		100	100			82				85	80	100	97	100	98	95	95	88
Enterobacter cloacae ⁴	125		100	99			82				86		97	96	100	93	96	94	80
Escherichia coli	1796	6	94	94	58	68	95	92	82	92/98 ⁵	97	93	96	100	100	81	83	79	93
Klebsiella aerogenes ⁴	54		100	100			78				83	80	98	96	100	100	98	94	69
Klebsiella oxytoca	89	4	99	99		78	93		90	100/100 ³	99	94	99	100	100	99	97	98	95
Klebsiella pneumoniae	405	12	98	97		88	95		84	95/98 ⁵	96	94	93	100	100	89	93	92	87
Morganella morganii	51		90	96			100			40/100 ³	90		100	100	100	84	86	84	100
Proteus mirabilis	222		92	93	87	94			100	98/100 ³	100	99	99	100	100	84	84	85	100
Pseudomonas aeruginosa	254			96			96				93		91		93		90	85	
Serratia marcescens ³	10 ³		100 ³	93 ³							100 ³	100 ³	100 ³	100 ³	100 ³	93 ³	93 ³		100 ³
Stenotrophomonas maltophilia	32														94		63	97	
Gram Negative Table Key																			
1) Ampicillin predicts amoxicillin susceptibility																			
2) Ampicillin/Sulbactam generally predicts amoxicillin/clavulanate susceptibility (except for A. baumannii)																			
3) Isolate numbers <30 may be statistically unreliable																			
4) Klebsiella aerogenes, Enterobacter cloacae complex, and Citrobacter freundii complex may develop resistance during prolonged therapy with 3rd generation cephalosporins as a result of derepression of AmpC Beta-lactamases																			
5) Cephalexins Cefaclotin/Cefotetan breakpoints																			

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- 5) Cephamycins Cefoxitin/Cefotetan breakpoints

Urinary Source Only - Gram Positive and Gram Negative

Percent Susceptible 2024		Number of Isolates	% ESBL Isolates		Aminoglycosides		Penicillins	B-Lactam/ inhibitor Combo		Cephalosporins						Carbapenems		Folate Pathway Inhibitor	Fluoroquinolone	Monobactam	Nitrofurans	Glycopeptides	Fosfomycin
					Gentamicin	Tobramycin				Ampicillin/ sulbactam	Piperacillin/ tazobactam	1st	2nd	3rd	4th	Ertapenem	Meropenem						
Gram Positive	<i>Enterococcus faecium</i> ³	16 ³			44 ³																		
	<i>Enterococcus faecalis</i>	255			100																		
	<i>Staphylococcus saprophyticus</i>	40		100												98	98	100		100	100		
Gram Negative	<i>Escherichia coli</i> ⁴	1692	6	94	94	58	68	96	92	82	92/98 ⁴	97	94	98	100	100	80		78	93	97		97
	<i>Klebsiella aerogenes</i> ²	38		100	100			68				78	71	97	94	100	100		87	60	24		
	<i>Klebsiella oxytoca</i> ⁴	58	4	98	98			78	91		89	100/100 ⁴	96	93	96	100	100	98	98	89	86		
	<i>Klebsiella pneumoniae</i> ⁴	343	13	98	97		87	95	89	80	94/97 ⁴	95	92	95	99	100	91		92	91	35		
	<i>Citrobacter freundii</i> complex ²	31		100	100			84				88	81	100	96	100	97		94	93	94		
	<i>Enterobacter cloacae</i> ²	70		100	100			73				81	100	97	76	100	95		91	67	41		
	<i>Morganella morganii</i> ⁴	34		91	97			100				40/100 ⁴	91			100	100	88		88	100		
	<i>Proteus mirabilis</i> ⁴	174		92	93	86	94	100	98	100	98/100 ⁴	100	99	99	100	100	83		86	100			
	<i>Pseudomonas aeruginosa</i>	137			96			86				94		91		92		82					
		<i>Serratia marcescens</i> ³	11 ³		100 ³	100 ³							100 ³	100 ³	100 ³	100 ³	100	100 ³		91 ³			
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- 3) Isolate numbers <30 may be statistically unreliable
- 4) Cephamycins Cefoxitin/Cefotetan breakpoints
- 5) Only one E. faecalis was tested for fosfomycin in 2024