New Hampshire Statewide Antibiogram 2018

All Sources Other Than Urine

Percent Susceptible

Bureau of Infectious Disease Control
Infectious Disease Surveillance Section

Gram Negative Organisms	Total Number of Isolates	Ampicillin (Amoxicillin)	Ampicillin/Sulbactam*	Piperacillin/Tazobactam	Cefazolin (Cephalexin)	Cefuroxime	Cefoxitin	Ceftriaxone	Ceftazidime	Cefepime	Aztreonam	Ertapenem	Meropenem	Imipenem	Doripenem	Ciprofloxacin	Levofloxacin	Amikacin	Gentamicin	Tobramycin	Tigecycline	Tetracycline (Doxycyline)	Trimethoprim/Sulfamethoxazole
Escherichia coli	2775	59	65	97	87	88	95	92	92	94	93	99	100	98	100	84	85	99	93	94	99	79	82
Klebsiella (Enterobacter) aerogenes	129			89				83	85	99	89	100	100	96		96	96	100	100	99	99	88	99
Enterobacter cloacae	667			92				82	88	95	86	97	99	97	100	97	98	100	99	98	99	94	96
Klebsiella pneumoniae	771		87	98	94	88	92	95	96	97	95	100	100	100	100	95	97	99	99	96	97	84	90
Klebsiella oxytoca	470		79	96	59	90	98	96	97	98	94	100	100	100		99	99	100	99	99	99	94	96
Proteus mirabilis	600	79	90	100	92	98	93	98	99	99	97	100	100			85	88	100	92	93			84
Serratia marcescens	423			84				86	77	99	85	100	100	96	100	98	98	99	98	94	99	15	100
Citrobacter freundii	140			97				82	85	99	82	99	100	100		93	94	100	98	97	97	84	90
Morganella morganii	203		4	100			86	92	89	98	88	100	100			92	97	100	93	96		35	90
Pseudomonas aeruginosa	1550			96					93	92	84		96	93	99	88	86	98	90	98			
Acinetobacter baumannii	158		85					62	92	87			92			87	93	93	92	91		91	86
Stenotrophomonas maltophilia	342								41								85						97
Haemophilus influenzae	325	65				91		99															70

Gram Positive Organisms	Total Number of Isolates	Penicillin	Ampicillin (Amoxicillin)	Oxacillin (Nafcillin)	Ampicillin/Sulbactam*	Cefazolin (Cephalexin)	Cefuroxime	Ceftriaxone	Levofloxacin	Moxifloxacin	Tetracycline (Doxycyline)	Trimethoprim/Sulfamethoxazole	Clindamycin	Erythromycin (Azithromycin)	Vancomycin	Linezolid	Daptomycin	Rifampin
Methicillin-**Sensitive** *Staphylococcus aureus* (MSSA)	7721	13		100	100	100		100	93	96	94	99	82		100	100	100	99
Methicillin-**Resistant** *Staphylococcus aureus* (MRSA)	3663								56	75	93	96	68		100	100	100	99
Enterococcus faecalis	1130	99	99												96	99	100	
Enterococcus faecium	140	30	36												45	93	92	
Enterococcus spp. (all hospital data)	1817	93	93												92	98	99	
Coagulase negative *Staphylococcus*	1478	7		54	52	52		52	73	82	82	73	67		99	99	99	97
Streptococcus pneumoniae (non-meningitis)	421	80					81	98	99	100	83	84	89	63	100	100		

Important Notes for Interpreting the antibiogram:

- High resistance to an antibiotic is a percent suceptibility of less than 80%

- The following antibiotics indicate susceptibility to others in the same/related class:

- Oxacillin predicts nafcillin susceptibility
- Tetracycline predicts doxycycline susceptibility
- Erythromycin predicts azithromycin susceptibility
- Ampicillin predicts amoxicillin susceptibility
- Cefazolin predicts cephalexin susceptibility
- Ampicillin/sulbactam predicts amoxicillin/clavulanate susceptibility (except for *Acinetobacter baumannii* which is intrinsically resistant)

Indicates data have been censored because of intrinsic resistance and/or inappropriate clinical use.

Indicates data have been censored because of insufficient sample or less than 3 hosptials. CLSI guidelines suggest total isolate counts of less than 30 are excluded.

* Predicts amoxicillin/clavulanate susceptibility, except for *Acinetobacter baumannii* which is intrinsically resistant

New Hampshire Statewide Antibiogram 2018

All Sources Other Than Urine

Total Number of Susceptible Isolates/Total Tested

Gram Negative Organisms	Total Number of Isolates	Ampicillin (Amoxicillin)	Ampicillin/Sulbactam*	Piperacillin/Tazobactam	Cefazolin	Cefuroxime	Cefoxitin	Ceftriaxone	Ceftazidime	Cefepime	Aztreonam	Ertapenem	Meropenem	Imipenem	Doripenem	Ciprofloxacin	Levofloxacin	Amikacin	Gentamicin	Tobramycin	Tigecycline	Tetracycline	Trimethoprim/Sulfamethoxazole
Escherichia coli	2775	1607 \ 2725	1490 \ 2292	2682 \ 2769	2027 \ 2332	1350 \ 1530	1815 \ 1912	2547 \ 2760	1827 \ 1983	2595 \ 2759	2070 \ 2235	2746 \ 2765	1955 \ 1963	1627 \ 1664	502 \ 502	2122 \ 2528	1752 \ 2063	2143 \ 2157	2107 \ 2263	2376 \ 2535	1261 \ 1271	1134 \ 1432	2246 \ 2748
Klebsiella (Enterobacter) aerogenes	129			96 \ 108				104 \ 126	89 \ 105	118 \ 119	138 \ 155	125 \ 125	109 \ 109	53 \ 55		122 \ 127	75 \ 78	118 \ 118	110 \ 110	122 \ 123	77 \ 78	68 \ 77	128 \ 129
Enterobacter cloacae	667			464 \ 506				543 \ 662	481 \ 544	608 \ 642	413 \ 482	639 \ 661	525 \ 530	325 \ 334	163 \ 163	633 \ 653	348 \ 356	567 \ 567	584 \ 592	617 \ 627	319 \ 323	367 \ 390	639 \ 666
Klebsiella pneumoniae	771		642 \ 736	726 \ 743	600 \ 637	484 \ 549	530 \ 575	733 \ 769	621 \ 647	746 \ 769	631 \ 661	757 \ 760	631 \ 632	405 \ 407	153 \ 153	729 \ 767	512 \ 530	643 \ 648	682 \ 692	703 \ 733	408 \ 419	361 \ 429	687 \ 764
Klebsiella oxytoca	470		337 \ 428	388 \ 406	236 \ 397	287 \ 319	306 \ 313	449 \ 470	370 \ 380	460 \ 470	357 \ 378	464 \ 464	374 \ 374	250 \ 251		465 \ 470	337 \ 341	385 \ 386	419 \ 424	427 \ 433	241 \ 243	265 \ 281	453 \ 470
Proteus mirabilis	600	467 \ 591	493 \ 550	599 \ 600	442 \ 483	379 \ 387	359 \ 387	586 \ 599	456 \ 461	591 \ 599	487 \ 501	591 \ 593	471 \ 471			512 \ 603	368 \ 418	480 \ 481	476 \ 520	499 \ 537			486 \ 580
Serratia marcescens	423			321 \ 383				365 \ 423	260 \ 336	419 \ 423	316 \ 370	408 \ 409	346 \ 346	173 \ 180	109 \ 109	415 \ 423	291 \ 296	370 \ 373	359 \ 366	374 \ 399	243 \ 245	39 \ 263	414 \ 416
Citrobacter freundii	140			121 \ 125				115 \ 140	100 \ 117	139 \ 140	98 \ 119	136 \ 137	114 \ 114	75 \ 75		130 \ 140	92 \ 98	119 \ 119	126 \ 129	128 \ 132	71 \ 73	68 \ 81	122 \ 135
Morganella morganii	203		7 \ 181	201 \ 202			126 \ 146	186 \ 203	163 \ 184	199 \ 203	139 \ 158	198 \ 198	150 \ 150			186 \ 202	157 \ 162	176 \ 176	186 \ 199	183 \ 191		50 \ 141	181 \ 201
Pseudomonas aeruginosa	1550			1479 \ 1539					1356 \ 1460	1324 \ 1442	976 \ 1163		1189 \ 1243	803 \ 868	324 \ 327	1339 \ 1526	972 \ 1136	1250 \ 1272	1201 \ 1332	1485 \ 1522			
Acinetobacter baumannii	158		111 \ 130					85 \ 138	121 \ 132	110 \ 127			114 \ 124			138 \ 158	104 \ 112	114 \ 122	131 \ 142	123 \ 135		94 \ 103	130 \ 152
Stenotrophomonas maltophilia	342								117 \ 288								214 \ 251						330 \ 341
Haemophilus influenzae	325	144 \ 221				63 \ 69		148 \ 150															111 \ 159

Gram Positive Organisms	Total Number of Isolates	Penicillin	Ampicillin (Amoxicillin)	Oxacillin (Nafcillin)	Ampicillin/Sulbactam*	Cefazolin	Cefuroxime	Ceftriaxone	Levofloxacin	Moxifloxacin	Tetracycline (Doxycyline)	Trimethoprim/ Sulfamethoxazole	Clindamycin	Erthromycin	Vancomycin	Linezolid	Daptomycin	Rifampin
Methicillin-**Sensitive** *Staphylococcus aureus* (MSSA)	7721	808 \ 6114		7721 \ 7721	6335 \ 6335	5999 \ 5999		5508 \ 5508	7182 \ 7700	6208 \ 6445	7251 \ 7710	6796 \ 6898	6247 \ 7613		7706 \ 7706	7640 \ 7647	6692 \ 6718	7631 \ 7706
Methicillin-**Resistant** *Staphylococcus aureus* (MRSA)	3663								2010 \ 3615	2312 \ 3081	3396 \ 3649	3104 \ 3239	2462 \ 3605		3661 \ 3661	3619 \ 3625	3201 \ 3217	3605 \ 3656
Enterococcus faecalis	1130	903 \ 908	1092 \ 1098												1087 \ 1127	1085 \ 1098	948 \ 949	
Enterococcus faecium	140	37 \ 122	49 \ 138												61 \ 136	128 \ 138	104 \ 113	
Enterococcus spp. (all hospital data)	1817	1336 \ 1438	1537 \ 1644												1543 \ 1670	1620 \ 1647	1457 \ 1471	
Coagulase negative *Staphylococcus*	1478	89 \ 1203		778 \ 1454	602 \ 1162	579 \ 1110		513 \ 978	1067 \ 1459	1086 \ 1320	1210 \ 1467	940 \ 1289	973 \ 1453		1466 \ 1479	1465 \ 1478	1319 \ 1339	1431 \ 1477
Streptococcus pneumoniae (non-meningitis)	421	302 \ 376					126 \ 155	307 \ 314	300 \ 303	108 \ 108	188 \ 226	220 \ 262	144 \ 162	174 \ 275	211 \ 211	69 \ 69		

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Percent Susceptible

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Gram Negative Organisms	**Total Number of Isolates**	Ampicillin (Amoxicillin)	Piperacillin/Tazobactam	Cefazolin (Cephalexin)	Cefuroxime	Cefoxitin	Ceftriaxone	Ceftazidime	Cefepime	Aztreonam	Ertapenem	Meropenem	Imipenem	Doripenem	Ciprofloxacin	Levofloxacin	Amikacin	Gentamicin	Tobramycin	Tigecycline	Tetracycline (Doxycyline)	Trimethoprim/Sulfamethoxazole	Nitrofurantoin
Escherichia coli	30364	64	98	90	92	96	95	95	96	95	100	100	100	100	88	88	99	93	95	100	81	83	98
Klebsiella (Enterobacter) aerogenes	533		91				86	90	100	92	100	100	90		98	98	100	100	100	99	95	98	20
Enterobacter cloacae	972		85				73	79	95	80	94	100	97	100	96	99	100	98	98	98	87	91	31
Klebsiella pneumoniae	5304		98	95	94	96	96	96	97	96	100	100	100	100	96	98	100	98	97	99	86	92	45
Klebsiella oxytoca	976		96	52	90	98	95	99	99	96	100	100	100	100	98	98	100	99	99	100	94	96	88
Proteus mirabilis	2244	80	100	92	98	99	96	94	99	98	100	100			81	84	100	91	93			82	
Serratia marcescens	342		85				87	86	98	88	98	100	99		94	98	100	100	93	100	9	98	
Citrobacter freundii	702		93				82	84	99	86	100	100	95	100	94	94	100	95	97	99	83	87	95
Morganella morganii	312		99			88	87	85	99	91	100	100			84	92	100	88	95	1		82	
Pseudomonas aeruginosa	1674		97					94	93	84		96	90	99	81	79	98	87	97				
Acinetobacter baumannii	80						49	89	93			92			87	93	98	98	99		82	83	

Gram Positive Organisms	**Total Number of Isolates**	Penicillin	Ampicillin (Amoxicillin)	Oxacillin (Nafcillin)	Cefazolin (Cephalexin)	Ceftriaxone	Levofloxacin	Moxifloxacin	Tetracycline (Doxycyline)	Trimethoprim/Sulfamethoxazole	Clindamycin	Vancomycin	Linezolid	Daptomycin	Rifampin	Nitrofurantoin
Methicillin-**Sensitive** *Staphylococcus aureus* (MSSA)	721	21		100	100	100	87	85	97	96	75	100	100	100	99	
Methicillin-**Resistant** *Staphylococcus aureus* (MRSA)	373						23		92	95	52	100	99	99	98	
Enterococcus faecalis	3044	99	99									98	98	100		99
Enterococcus faecium	261	18	22									49	96	92		43
Enterococcus spp. (all hospital data)	5168	94	94									95	98	99		95

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Gram Negative Organisms	Total Number of Isolates	Ampicillin (Amoxicillin)	Piperacillin/Tazobactam	Cefazolin (Cephalexin)	Cefuroxime	Cefoxitin	Ceftriaxone	Ceftazidime	Cefepime	Aztreonam	Ertapenem	Meropenem	Imipenem	Doripenem	Ciprofloxacin	Levofloxacin	Amikacin	Gentamicin	Tobramycin	Tigecycline	Tetracycline (Doxycyline)	Trimethoprim/Sulfamethoxazole	Nitrofurantoin
Escherichia coli	30364	16433 \ 25734	29777 \ 30307	26410 \ 29257	18806 \ 20438	19521 \ 20403	28752 \ 30316	23649 \ 24912	29192 \ 30318	24959 \ 26169	29840 \ 29987	24425 \ 24462	17281 \ 17344	6907 \ 6907	26479 \ 30242	19231 \ 21969	22599 \ 22749	28329 \ 30329	26415 \ 27929	17363 \ 17447	15165 \ 18783	24962 \ 30235	29089 \ 29757
Klebsiella (Enterobacter) aerogenes	533		437 \ 480				455 \ 529	397 \ 441	532 \ 533	434 \ 472	527 \ 529	445 \ 445	284 \ 316		519 \ 532	377 \ 384	431 \ 432	532 \ 533	492 \ 493	316 \ 319	330 \ 348	522 \ 532	103 \ 517
Enterobacter cloacae	972		691 \ 816				709 \ 965	602 \ 762	922 \ 971	641 \ 806	892 \ 945	795 \ 795	623 \ 639	204 \ 204	933 \ 971	668 \ 677	770 \ 772	949 \ 972	872 \ 894	515 \ 528	503 \ 575	851 \ 936	285 \ 931
Klebsiella pneumoniae	5304		5024 \ 5141	4840 \ 5095	3406 \ 3630	3478 \ 3608	5109 \ 5297	3911 \ 4059	5138 \ 5297	4384 \ 4552	5228 \ 5239	4259 \ 4262	3743 \ 3761	1194 \ 1194	5092 \ 5294	3716 \ 3803	4052 \ 4064	5199 \ 5303	4793 \ 4922	2974 \ 3003	2768 \ 3213	4842 \ 5289	2360 \ 5227
Klebsiella oxytoca	976		792 \ 829	422 \ 806	596 \ 665	642 \ 655	911 \ 957	796 \ 803	963 \ 970	790 \ 823	959 \ 961	771 \ 771	676 \ 678	208 \ 208	958 \ 976	681 \ 692	766 \ 768	968 \ 975	914 \ 920	559 \ 561	555 \ 591	934 \ 975	852 \ 971
Proteus mirabilis	2244	1704 \ 2135	2223 \ 2234	1987 \ 2160	1485 \ 1512	1433 \ 1453	2104 \ 2196	1749 \ 1864	2221 \ 2243	1793 \ 1829	2195 \ 2202	1742 \ 1742			1792 \ 2224	1372 \ 1634	1703 \ 1704	2037 \ 2240	1927 \ 2074			1824 \ 2227	
Serratia marcescens	342		253 \ 296				296 \ 339	220 \ 256	335 \ 342	261 \ 298	321 \ 326	289 \ 290	132 \ 134		320 \ 341	209 \ 213	278 \ 279	341 \ 342	291 \ 314	189 \ 189	17 \ 187	335 \ 341	
Citrobacter freundii	702		535 \ 574				573 \ 701	442 \ 527	695 \ 702	524 \ 607	689 \ 690	586 \ 586	354 \ 373	121 \ 121	657 \ 702	431 \ 460	532 \ 534	667 \ 702	609 \ 631	374 \ 376	333 \ 399	604 \ 693	666 \ 701
Morganella morganii	312		308 \ 311			146 \ 166	271 \ 311	212 \ 248	308 \ 312	232 \ 256	308 \ 309	245 \ 245			262 \ 311	194 \ 212	255 \ 255	275 \ 311	276 \ 291	1 \ 162		255 \ 311	
Pseudomonas aeruginosa	1674		1605 \ 1660					1465 \ 1558	1338 \ 1436	1068 \ 1277		1372 \ 1427	782 \ 865	337 \ 341	1339 \ 1658	857 \ 1085	1301 \ 1333	1449 \ 1660	1713 \ 1757				
Acinetobacter baumannii	80						38 \ 77	67 \ 75	70 \ 75			54 \ 59			65 \ 75	55 \ 59	52 \ 53	78 \ 80	75 \ 76		37 \ 45	63 \ 76	

Gram Positive Organisms	Total Number of Isolates	Penicillin	Ampicillin (Amoxicillin)	Oxacillin (Nafcillin)	Cefazolin	Ceftriaxone	Levofloxacin	Moxifloxacin	Tetracycline (Doxycyline)	Trimethoprim/Sulfamethoxazole	Clindamycin	Vancomycin	Linezolid	Daptomycin	Rifampin	Nitrofurantoin
Methicillin-**Sensitive** *Staphylococcus aureus* (MSSA)	721	129 \ 622		687 \ 687	433 \ 433	446 \ 446	620 \ 714	84 \ 99	695 \ 718	661 \ 685	126 \ 169	721 \ 721	703 \ 704	602 \ 602	716 \ 720	
Methicillin-**Resistant** *Staphylococcus aureus* (MRSA)	373						81 \ 355		341 \ 370	336 \ 352	36 \ 69	371 \ 371	363 \ 365	332 \ 334	361 \ 370	
Enterococcus faecalis	3044	2306 \ 2320	2932 \ 2950									2983 \ 3037	2890 \ 2945	2518 \ 2530		2823 \ 2853
Enterococcus faecium	261	40 \ 217	57 \ 261									125 \ 256	249 \ 260	213 \ 232		109 \ 252
Enterococcus spp. (all hospital data)	5168	3610 \ 3858	4757 \ 5064									4893 \ 5135	4931 \ 5017	4426 \ 4466		4695 \ 4951

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