

Princess Margaret Hospital ANTIBIOGRAM
All Inpatients and Outpatients
January 1, 2022 - December 31, 2022

All Specimen Isolates – % Susceptible

≥80% Susceptible ■ 70-79% Susceptible ■ ≤69% Susceptible ■	#	%	Ampicillin	Amoxicillin-Clavulanic acid	Penicillin	Penicillin IV (meningitis)	Penicillin IV (non-meningitis)	Piperacillin-Tazobactam	Meropenem	Ertapenem	Clotaxacin	Cefazolin	Ceftriaxone	Ceftriaxone (meningitis)	Ceftriaxone (non-meningitis)	Ceftazidime	Clindamycin	Erythromycin	Doxycycline	Ciprofloxacin	Moxifloxacin	Trimethoprim-Sulfamethoxazole	Gentamicin	Tobramycin	Amikacin	Vancomycin	Linezolid	Daptomycin

ALL BACTERIA	1853	—	14	30			62	64	58			37	54									63						
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ALL GRAM-NEGATIVE BACTERIA	680	100	9	55			74	99	80			24	63			78				76	67	92	81	96				
<i>Escherichia coli</i>	300	44	15	73			81	100	100			29	84			84				66	71	90	70	92				
<i>Klebsiella pneumoniae</i>	105	15	0	91			89	100	100			64	93			93				86	84	93	87	100				
<i>Pseudomonas aeruginosa</i>	96	14					92	92								95				90			96	99	98			
<i>Enterobacter cloacae</i>	45	7	0	0			0	98	98			0	2			2				84	87	95	91	100				
<i>Proteus mirabilis</i>	31	5	20	94			100	100	100			0	100			100				87	77	87	60	100				
<i>Klebsiella oxytoca</i>	25	4	0	78			83	100	100			33	87			87				92	84	100	100	100				
<i>Stenotrophomonas maltophilia</i> *	21	3																			90	100						
<i>Citrobacter freundii</i> complex	13	2	0	0			0	100	100			0	0			0				92	92	92	100	100				
<i>Haemophilus influenzae</i> ^^	9	1	89																									
<i>Serratia marcescens</i>	8	1	0	0			0	100	100			0	0			0				100	100	100	100	100				
<i>Citrobacter koseri</i>	8	1	0	0			0	100	100			0	0			0				100	100	100	100	100				
<i>Klebsiella aerogenes</i>	7	1	0	0			0	86	71			0	0			0				86	100	100	100	100				
<i>Morganella morganii</i>	4	1	0	0			0	100	100			0	0			0				100	100	100	100	100				
<i>Moraxella catarrhalis</i> ^	3	0																										
<i>Providencia rettgeri</i>	3	0	0	0			0	100	100			0	0			0				100	100	100	100	100				
<i>Haemophilus parainfluenzae</i> ^^	2	0	100																									

ALL GRAM-POSITIVE BACTERIA	1173	100	16	16	6		56	45	45	39	44	48				52	41				60			96	14	
Coagulase-negative staphylococci	618	53					42	42	42	42	42					60	42	94			67			100	100	
<i>Staphylococcus aureus</i> , all isolates	231	20					89	89	89	89	88					82	77	96			98			100	100	
- methicillin-susceptible	205	17					100	100	100	100	99					84	82	97			99			100	100	
- methicillin-resistant (MRSA)	26	2					0	0	0	0	0					65	42	88			92			100	100	
<i>Enterococcus faecalis</i>	126	11	99	99			99																	100		
Viridans group streptococci*	84	7			50							98												100		
<i>Enterococcus faecium</i> , all isolates	79	7	4	4			4																	65		
- vancomycin-susceptible	51	4	6	6			6																	100		
- vancomycin-resistant (VRE)	28	2	0	0			0																	0	100	100
<i>Staphylococcus lugdunensis</i>	21	2					90	90	90	90	90					100	95	100			95			100	100	
<i>Streptococcus anginosus</i> group**	19	2			85							100												100		
Group B streptococci**	11	1			100											70	70							100		
<i>Streptococcus pneumoniae</i>	7	1				100	100					50	100			80	71			100				100		

General Notes:

- Statistical validity of estimates of percent susceptibility for organisms for which there are fewer than 30 isolates reported is limited. Please take this into consideration when interpreting the reported results.
- Some organisms for which there were only very small numbers have been excluded from this report; however the total number of "ALL BACTERIA", "ALL GRAM-NEGATIVE BACTERIA", and "ALL GRAM-POSITIVE BACTERIA" listed includes these organisms.
- Reported susceptibilities for "ALL BACTERIA", "ALL GRAM-NEGATIVE BACTERIA", and "ALL GRAM-POSITIVE BACTERIA" reflect estimates only based on the weighted average of susceptibilities for all organisms included on this report as well as those that have been excluded, with assumptions made for those drugs for which susceptibilities were not tested.
- Susceptibility to doxycycline was predicted based on tetracycline susceptibility testing results.

Organism-Specific Notes:

- ^ *M. catarrhalis*: Susceptibility testing is not routinely performed. Most isolates are resistant to ampicillin and amoxicillin but are generally susceptible to other antibiotics commonly used for respiratory infections.
- ^^ *H. influenzae* and *H. parainfluenzae*: Susceptibility to ampicillin was determined using beta-lactamase testing. Beta-lactamase-positive isolates are resistant to ampicillin but are generally susceptible to amoxicillin-clavulanic acid and cefuroxime.
- ** Beta-hemolytic streptococci: Susceptibility testing to penicillin is not routinely performed since resistant strains have not been recognized. All isolates are considered susceptible to penicillin.
- * Viridans group streptococci: Please note that only a small proportion of these isolates were tested for susceptibilities. Please take this into consideration when interpreting the reported results.
- ^ *S. maltophilia*: Susceptibility to moxifloxacin was predicted based on levofloxacin susceptibility testing results.
- ** *S. anginosus* group: Please note that only a small proportion of these isolates were tested for susceptibilities. Please take this into consideration when interpreting the reported results.

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Respiratory Isolates – % Susceptible

	#	%	Antibiotics																						
			Ampicillin	Amoxicillin-Clavulanic acid	Penicillin IV (meningitis)	Penicillin IV (non-meningitis)	Piperacillin-Tazobactam	Meropenem	Ertapenem	Cloxacillin	Cefazolin	Ceftriaxone	Ceftriaxone (meningitis)	Ceftriaxone (non-meningitis)	Ceftazidime	Clindamycin	Erythromycin	Doxycycline	Ciprofloxacin	Moxifloxacin	Trimethoprim-Sulfamethoxazole	Gentamicin	Tobramycin	Amikacin	Vancomycin
ALL BACTERIA	75	—	15	19			86	86	35		27	54								59					
ALL GRAM-NEGATIVE BACTERIA	49	100	22	29			82	91	12		40			78				70		38	85	75	66		
<i>Pseudomonas aeruginosa</i>	22	45					82	82						91				82		82	95	82			
<i>Haemophilus influenzae</i> ^{^^}	9	18	89																						
<i>Stenotrophomonas maltophilia</i> [†]	5	10																100	100						
<i>Klebsiella pneumoniae</i>	3	6	0	67			67	100	100		67			67				67		100	100				
<i>Moraxella catarrhalis</i> [^]	3	6																							
<i>Proteus mirabilis</i>	2	4	100	100			100	100			100			100				100		50	100				
<i>Escherichia coli</i>	1	2	100	100			100	100			100			100				100		100	100				
<i>Enterobacter cloacae</i>	1	2	0	0			0	100	100		0			0				100		100	100	100	100		
<i>Serratia marcescens</i>	1	2	0	0			0	100	100		0			0				100		100	100	100	100		
<i>Citrobacter koseri</i>	1	2	0	0			0	100	100		0			0				100		100	100	100	100		
<i>Burkholderia cepacia</i>	1	2					100							100						100					
ALL GRAM-POSITIVE BACTERIA	26	100					92	77	77	77	77	77						69	66			95			100
<i>Staphylococcus aureus</i> , all isolates	19	73					95	95	95	95	95							73	69	100		100			100
- methicillin-susceptible	18	69					100	100	100	100	100							72	67	100		100			100
- methicillin-resistant (MRSA)	1	4					0	0	0	0	0							100	100	100		100			100
<i>Streptococcus pneumoniae</i>	4	15			100	100							0	100				75	75			100			100
Coagulase-negative staphylococci	2	8					100	100	100	100	100							50	50	100		100			100
<i>Enterococcus faecium</i>	1	4	0	0			0																		100

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Organism-Specific Notes:

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- ^{^^} *H. influenzae* and *H. parainfluenzae*: Susceptibility to ampicillin was determined using beta-lactamase testing. Beta-lactamase-positive isolates are resistant to ampicillin but are generally susceptible to amoxicillin-clavulanic acid and cefuroxime.
- [†] *S. maltophilia*: Susceptibility to moxifloxacin was predicted based on levofloxacin susceptibility testing results.

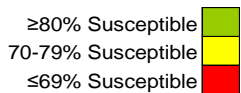
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Urine Isolates – % Susceptible

		Ampicillin	Amoxicillin-Clavulanic acid	Penicillin	Piperacillin-Tazobactam	Meropenem	Ertapenem	Cloxacillin	Cefazolin	Cephalexin	Ceftriaxone	Ceftazidime	Doxycycline	Ciprofloxacin	Trimethoprim-Sulfamethoxazole	Nitrofurantoin	Gentamicin	Tobramycin	Amikacin	Vancocycin	Linezolid	Daptomycin	
#	%																						



ALL BACTERIA	579	—	22	65	76	74	69	15	4	56	71	55	72									
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ALL GRAM-NEGATIVE BACTERIA	404	100	4	67	77	99	93			74	79	76	73	68	92	56	92						
<i>Escherichia coli</i>	226	56	7	74	82	100	100			85	85	70	74	98	91	48	95						
<i>Klebsiella pneumoniae</i>	72	18	0	92	89	100	100			92	92	82	83	28	93	57	100						
<i>Proteus mirabilis</i>	23	6	0	87	96	100	100			96	96	83	70	0	83	67	100						
<i>Pseudomonas aeruginosa</i>	23	6			87	95					95	83			90	100	100						
<i>Enterobacter cloacae</i>	18	4	0	0	0	100	100		0	0	0	78	78	39	94	89	100						
<i>Klebsiella oxytoca</i>	17	4	0	88	88	100	100			88	88	94	82	88	100								
<i>Citrobacter koseri</i>	6	1	0	0	0	100	100		0	0	0	100	100	83	100	100	100						

ALL GRAM-POSITIVE BACTERIA	175	100	62	62	1	76	15	15	14	15	15	15	41	58	15	82					89		
<i>Enterococcus faecalis</i>	107	61	99	99		99							36	94		100					100		
<i>Enterococcus faecium</i> , all isolates	39	22	5	5		5							18	3		21					51	96	
- vancomycin-susceptible	20	11	10	10		10							35	5		25					100	92	
- vancomycin-resistant (VRE)	19	11	0	0		0							0	0		16					0	100	100
<i>Staphylococcus aureus</i> , all isolates	27	15				89	89	89	89	89	89		96		96	100					100	100	
- methicillin-susceptible	24	14				100	100	100	100	100	100		96		96	100					100	100	
- methicillin-resistant (MRSA)	3	2				0	0	0	0	0	0		100		100	100					100	100	
Group A streptococci**	1	1				100															100		
Group B streptococci**	1	1				100															100		
<i>Staphylococcus lugdunensis</i>	1	1				100	100	100	100	100	100		100		100	100					100	100	

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Organism-Specific Notes:

** Beta-hemolytic streptococci: Susceptibility testing to penicillin is not routinely performed since resistant strains have not been recognized. All isolates are considered susceptible to penicillin.

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All Non-Urine Isolates – % Susceptible

≥80% Susceptible ■ 70-79% Susceptible ■ ≤69% Susceptible ■	#	%	Ampicillin	Amoxicillin-Clavulanic acid	Penicillin	Penicillin IV (meningitis)	Penicillin IV (non-meningitis)	Piperacillin-Tazobactam	Meropenem	Ertapenem	Cloxacillin	Cefazolin	Ceftriaxone	Ceftriaxone (meningitis)	Ceftriaxone (non-meningitis)	Ceftazidime	Clindamycin	Erythromycin	Doxycycline	Ciprofloxacin	Moxifloxacin	Trimethoprim-Sulfamethoxazole	Gentamicin	Tobramycin	Amikacin	Vancomycin	Linezolid	Daptomycin
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ALL BACTERIA	1165	—	11	17				58	61	53		44	53									65							
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ALL GRAM-NEGATIVE BACTERIA	275	100	10	37				70	97	61		21	46			75				73		56	94	93	96				
<i>Pseudomonas aeruginosa</i>	74	27						93	92							95				92			97	99	97				
<i>Escherichia coli</i>	69	25	24	69				76	100	100		46	79			79				46		56	85	81	90				
<i>Klebsiella pneumoniae</i>	34	12	0	88				85	100	100		73	94			94				85		79	94	96	100				
<i>Enterobacter cloacae</i>	30	11	0	0				0	97	97		0	3			3				86		87	97	93	100				
<i>Stenotrophomonas maltophilia</i> ¹	18	7																			89	100							
<i>Proteus mirabilis</i>	10	4	33	100				100	100	100		0	100			100				100		90	100	100	100				
<i>Klebsiella oxytoca</i>	8	3	0	57				71	100	100		29	86			86				88		100	100	100	100				
<i>Serratia marcescens</i>	8	3	0	0				0	100	100		0	0			0				100		100	100	100	100				
<i>Haemophilus influenzae</i> ^{^^}	7	3	86																										

ALL GRAM-POSITIVE BACTERIA	890	100	11	11	8			54	51	51	43	51	55			60	48					68					96		
Coagulase-negative staphylococci	485	54						42	42	42	42	42				60	42	94				67				100	100		
<i>Staphylococcus aureus</i> , all isolates	213	24						88	88	88	88	88				83	79	96				98				100	100		
- methicillin-susceptible	189	21						99	99	99	99	99				85	83	97				99				100	100		
- methicillin-resistant (MRSA)	24	3						0	0	0	0	0				71	46	88				92				100	100		
Viridans group streptococci [°]	84	9			50								98													100			
<i>Enterococcus faecium</i> , all isolates	43	5	3	3				3																		67			
- vancomycin-susceptible	29	3	4	4				4																		100			
- vancomycin-resistant (VRE)	14	2	0	0				0																		0	100		
<i>Enterococcus faecalis</i>	24	3	100	100				100																		100			
<i>Staphylococcus lugdunensis</i>	20	2						90	90	90	90	90				100	95	100				95				100	100		
<i>Streptococcus anginosus</i> group ^{°°}	19	2			85								100													100			
Group B streptococci ^{**}	10	1			100											78	78									100			
<i>Streptococcus pneumoniae</i>	7	1				100	100							50	100					80	71					100			

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Organism-Specific Notes:

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