

Toronto General Hospital ANTIBIOGRAM

All Inpatients

January 1, 2023 - December 31, 2023

Respiratory 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
ALL BACTERIA	469	—	1	10			71	87	47		27	45									61					
ALL GRAM-NEGATIVE BACTERIA	312	100	13				66	91	29			24			61				75		43	89	81	87		
<i>Pseudomonas aeruginosa</i>	145	46					84	84							85				85			87	96	91		
<i>Stenotrophomonas maltophilia</i> [†]	33	11																	81	84						
<i>Klebsiella pneumoniae</i>	28	9	0	71			71	96	80		0	75		75				79		75	89	40	80			
<i>Enterobacter cloacae</i>	25	8	0	0			0	100	96		0	0		0				92		92	100	96	100			
<i>Serratia marcescens</i>	19	6	0	0			0	100	100		0	0		0				94		100	100	100	100			
<i>Escherichia coli</i>	18	6	0	33			50	94	75		0	67		67				61		50	83	50	100			
<i>Klebsiella oxytoca</i>	14	4	0	79			79	100			0	86		86				100		100	100					
<i>Moraxella catarrhalis</i> [^]	14	4																								
<i>Proteus mirabilis</i>	6	2	0	83			100	100	100		0	100		100				83		67	83	100	100			
<i>Citrobacter koseri</i>	5	2	0	0			0	100	100		0	0		0				100		100	100	100	100			
<i>Burkholderia cepacia</i>	3	1					67							33						67						
<i>Citrobacter freundii</i>	2	1	0	0			0	100	100		0	0		0				100		100	100	100	100			
ALL GRAM-POSITIVE BACTERIA	157	100	4	4	4		81	81	81	78	81	83			78	69					98				99	
<i>Staphylococcus aureus</i> , all isolates	145	92					84	84	84	84	84				77	69	91				99				100	100
- methicillin-susceptible	123	78					99	99	99	99	99				80	74	95				100				100	100
- methicillin-resistant (MRSA)	22	14					0	0	0	0	0				62	43	67				91				100	100
<i>Streptococcus pneumoniae</i>	11	7			50	50							83	100	90	73			100						100	
<i>Mycobacterium tuberculosis complex</i>	1	1																								

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.
- [†] *S. maltophilia*: Susceptibility to moxifloxacin was predicted based on levofloxacin susceptibility testing results.

Toronto General Hospital ANTIBIOGRAM

All Inpatients

January 1, 2023 - December 31, 2023

All Urine Isolates – % Susceptible

	#	%	Antibiotics																			
			Ampicillin	Amoxicillin-Clavulanic acid	Penicillin	Piperacillin-Tazobactam	Meropenem	Ertapenem	Cloxacillin	Cefazolin	Cephalexin	Ceftriaxone	Ceftazidime	Doxycycline	Ciprofloxacin	Trimethoprim-Sulfamethoxazole	Nitrofurantoin	Gentamicin	Tobramycin	Amikacin	Vancomycin	Linezolid
ALL BACTERIA	1382	–	21	58	70	72	62		7	2	47		28	68	49	66						
ALL GRAM-NEGATIVE BACTERIA	982	100	3	55	69	98	85		6		63	73	25	69	66	64	91	56	93			
<i>Escherichia coli</i>	491	50	5	66	74	100	98		9	0	78	78	25	58	69	97	89	40	95			
<i>Klebsiella pneumoniae</i>	189	19	0	77	78	98	86		6	0	84	84	67	72	73	29	93	48	83			
<i>Pseudomonas aeruginosa</i>	95	10			86	87						91		84			90	96	95			
<i>Enterobacter cloacae</i>	57	6	0	0	2	100	96		0	0	0	0		95	80	50	95	100	100			
<i>Proteus mirabilis</i>	53	5	12	84	94	100	83		0		96	96		79	79	0	85	67	100			
<i>Klebsiella oxytoca</i>	33	3	0	77	77	100	100		22		77	77		91	88	90	94	50	100			
<i>Citrobacter koseri</i>	20	2	0	0	0	100	100		0	0	0	0		100	95	95	100	100	100			
<i>Citrobacter freundii</i>	12	1	0	0	0	100	100		0	0	0	0		83	67	100	100	92	92			
<i>Morganella morganii</i>	10	1	0	0	0	100	100		0	0	0	0		60	70	10	90	80	100			
<i>Serratia marcescens</i>	9	1	0	0	0	100	100		0	0	0	0		100	100	0	100	100	100			
<i>Stenotrophomonas maltophilia</i> [†]	4	0													100	0						
<i>Citrobacter braakii</i>	3	0	0	0	0	100	100		0	0	0	0		67	100	100	100	100	100			
<i>Pseudomonas putida</i>	3	0			100		0			0		100		100	0	0	100	100				
<i>Acinetobacter baumannii</i> complex	1	0			100	100				0	0	100		100	100	0	100	100	100			
<i>Providencia rettgeri</i>	1	0	0	0	0	100	100		0	0	0	0		0	100	0	100	100	100			
<i>Citrobacter amalonaticus</i>	1	0	0	0	0	100	100		0	0	0	0		100	100	0	100	100	100			
ALL GRAM-POSITIVE BACTERIA	400	100	64	64	72	8	8	8	8	8	8	8		35	64	9	73				91	99
<i>Enterococcus faecalis</i> , all isolates	249	62	99	99	100									33	87		99				100	100
<i>Enterococcus faecium</i> , all isolates	115	29	8	8	8									23	8		8				70	98
- vancomycin-susceptible	81	20	12	12	12									26	11		9				99	98
- vancomycin-resistant (VRE)	34	9	0	0	0									15	0		6				0	97
<i>Staphylococcus aureus</i> , all isolates	33	8			91	91	91	91	91	91				91	91	97	100				100	100
- methicillin-susceptible	30	8			100	100	100	100	100	100				97	100	100	100				100	100
- methicillin-resistant (MRSA)	3	1			0	0	0	0	0	0				33		67	100				100	100
Coagulase-negative staphylococci	3	1			0	0	0	0	0	0				100		100	100				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
- 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
- Reported susceptibilities for "ALL BACTERIA", "ALL GRAM-NEGATIVE BACTERIA", and "ALL GRAM-POSITIVE BACTERIA" reflect estimates only based on the weighted average of
- Susceptibility to doxycycline was predicted based on tetracycline susceptibility testing results.

Organism-Specific Notes:

[†] *S. maltophilia*: Susceptibility to moxifloxacin was predicted based on levofloxacin susceptibility testing results.

Toronto General Hospital ANTIBIOGRAM

All Inpatients

January 1, 2023 - December 31, 2023

All Specimens – % Susceptible

	#	%	Antibiotics																									
			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	
ALL BACTERIA	3363	—	18	38				66	71	60		31	50									57						
ALL GRAM-NEGATIVE BACTERIA	1864	100	10	45				68	97	76		24	54			69				71		62	92	86	97			
<i>Escherichia coli</i>	696	37	25	65				74	100	99		36	78			78				57		67	89	77	97			
<i>Pseudomonas aeruginosa</i>	343	18						86	87							88				86			91	97	94			
<i>Klebsiella pneumoniae</i>	316	17	0	79				81	99	96		55	84			84				75		77	94	85	96			
<i>Enterobacter cloacae</i>	137	7	0	0				2	100	97		0	1			1				92		87	97	97	100			
<i>Proteus mirabilis</i>	86	5	10	86				94	100	96		7	95			95				80		79	89	89	100			
<i>Klebsiella oxytoca</i>	81	4	0	83				85	100	100		31	87			87				92		91	96	91	97			
<i>Stenotrophomonas maltophilia</i>	56	3																		81		89						
<i>Serratia marcescens</i>	55	3	0	0				0	100	100		0	0			0				93		100	100	100	98			
<i>Citrobacter koseri</i>	28	2	0	0				0	100	100		0	0			0				100		96	100	100	100			
<i>Citrobacter freundii</i>	24	1	0	0				0	100	100		0	0			0				88		78	96	91	96			
<i>Morganella morganii</i>	20	1	0	0				0	100	100		0	0			0				75		75	95	85	95			
<i>Moraxella catarrhalis</i> [^]	12	1																										
<i>Citrobacter braakii</i>	10	1	0	0				0	100	100		0	0			0				80		90	100	90	100			
ALL GRAM-POSITIVE BACTERIA	1499	100	28	28	4			63	39	39	35	39	45			43	34					50					95	
<i>Staphylococcus aureus</i> , all isolates	482	32						87	87	87	87	86				78	69	94				99					100	100
- methicillin-susceptible	424	28						99	99	99	99	98				80	73	96				100					100	100
- methicillin-resistant (MRSA)	58	4						2	2	2	2	2				64	41	77				91				98	100	
<i>Enterococcus faecalis</i> , all isolates	347	23	99	99				99																			100	
Coagulase-negative staphylococci	283	19						37	37	37	37	37				59	35	90				70					100	100
<i>Enterococcus faecium</i> , all isolates	232	15	9	9				9																			69	
- vancomycin-susceptible	162	11	13	13				13																			99	
- vancomycin-resistant (VRE)	70	5	0	0				0																			0	99
Viridans group streptococci [*]	76	5			0									97													100	
<i>Streptococcus pneumoniae</i>	32	2				45	45								88	100					100						100	
Group A streptococci ^{**}	24	2																									100	
Group B streptococci ^{**}	12	1																									100	
Group C streptococci ^{**}	11	1																									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.

Year-Specific Notes:

- All specimens exclude surveillance samples.

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.

^{**} 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.

Toronto General Hospital ANTIBIOGRAM

All Inpatients

January 1, 2023 - December 31, 2023

All Non-Urine Isolates – % 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

ALL BACTERIA	2933	—	10	20				57	62	53		38	48									64					
---------------------	------	---	----	----	--	--	--	----	----	----	--	----	----	--	--	--	--	--	--	--	--	----	--	--	--	--	--

ALL GRAM-NEGATIVE BACTERIA	1042	100	10	37				67	96	67		26	46			66					72		57	93	92	97
<i>Escherichia coli</i>	289	28	34	62				70	99	99		48	76			76					54		63	90	86	98
<i>Pseudomonas aeruginosa</i>	269	26						86	86							87					87			91	97	94
<i>Klebsiella pneumoniae</i>	165	16	0	79				80	99	98		66	83			83					76		79	93	90	99
<i>Enterobacter cloacae</i>	86	8	0	0				1	100	95		0	1			1					92		89	98	95	100
<i>Stenotrophomonas maltophilia</i> [†]	52	5																				82	88			
<i>Klebsiella oxytoca</i>	48	5	0	87				91	100	100		32	94			94					96		93	98	97	97
<i>Serratia marcescens</i>	46	4	0	0				0	100	100		0	0			0					91		100	100	100	98
<i>Proteus mirabilis</i>	42	4	7	87				93	100	100		8	95			95					78		78	93	96	96
<i>Citrobacter freundii</i>	13	1	0	0				0	100	100		0	0			0					92		85	92	85	92
<i>Moraxella catarrhalis</i> [^]	12	1																								
<i>Morganella morganii</i>	11	1	0	0				0	100	100		0	0			0					91		82	100	91	91
<i>Citrobacter koseri</i>	9	1	0	0				0	100	100		0	0			0					100		100	100	100	100

ALL GRAM-POSITIVE BACTERIA	1891	100	10	10	3			52	45	45	42	45	49			56	40					67				98	
Coagulase-negative staphylococci	1019	54						38	38	38	38	38				59	35	90				70				100	100
<i>Staphylococcus aureus</i> , all isolates	463	24						87	87	87	87	86				78	69	94				99				100	100
- methicillin-susceptible	407	22						99	99	99	99	98				80	73	96				100				100	100
- methicillin-resistant (MRSA)	56	3						2	2	2	2	2				67	43	80				93				98	100
<i>Enterococcus faecium</i> , all isolates	135	7	8	8				10																		69	
- vancomycin-susceptible	93	5	12	12				13																		100	
- vancomycin-resistant (VRE)	42	2	0	0				2																		0	100
<i>Enterococcus faecalis</i> , all isolates	120	6	97	97				98																		100	
Viridans group streptococci [*]	76	4			0										97											100	
<i>Streptococcus pneumoniae</i>	32	2			45	45																				100	
Group A streptococci ^{**}	24	1			100																					100	
Group B streptococci ^{**}	12	1			100																					100	
Group C streptococci ^{**}	10	1			100											20	20									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.
- ^{**} 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.