

### Blood Isolates – % Susceptible

**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:**

- Only a limited number of coagulase negative staphylococci isolates were tested for susceptibilities. The vast majority of coagulase-negative staphylococci are susceptible to vancomycin. If you have any questions, please contact the UHN/MSH Department of Microbiology.

**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.
- \* 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.

**Toronto General Hospital ANTIBIOGRAM**  
**Wards other than ICUs/Emergency/Transplant Unit**  
**January 1, 2024 - December 31, 2024**

**Respiratory Isolates – % Susceptible**

≥80% Susceptible <span style="color: green;">■</span> 70-79% Susceptible <span style="color: yellow;">■</span> ≤69% Susceptible <span style="color: red;">■</span>		#	%	Ampicillin	Amoxicillin-Clavulanic acid	Penicillin IV (meningitis)	Penicillin IV (non-meningitis)	Piperacillin-Tazobactam	Meropenem	Ertapenem	Cloxacillin	Cefazolin	Ceftriaxone	Cefazidime	Clindamycin	Erythromycin	Doxycycline	Ciprofloxacin	Moxifloxacin	Trimethoprim-Sulfamethoxazole	Gentamicin	Tobramycin	Amikacin	Vancomycin	Linezolid
--	--	---	---	------------	-----------------------------	----------------------------	--------------------------------	-------------------------	-----------	-----------	-------------	-----------	-------------	------------	-------------	--------------	-------------	---------------	--------------	-------------------------------	------------	------------	----------	------------	-----------

<b>ALL BACTERIA</b>	268	—	12	16			68	75	27		16	32								39					
---------------------	-----	---	----	----	--	--	----	----	----	--	----	----	--	--	--	--	--	--	--	----	--	--	--	--	--

<b>ALL GRAM-NEGATIVE BACTERIA</b>	201	100	13	18			73	82	15			25	68					63		25	85	87	86		
<i>Pseudomonas aeruginosa</i>	114	57					78	73					81					72			84	98	91		
<i>Haemophilus influenzae</i> <sup>^^</sup>	26	13	96																						
<i>Stenotrophomonas maltophilia</i> <sup>†</sup>	20	10																	65	85					
<i>Klebsiella pneumoniae</i>	12	6	0	75			50	100	100		0	75	75					58		75	83	0	50		
<i>Moraxella catarrhalis</i> <sup>^</sup>	7	3																							
<i>Enterobacter cloacae</i>	6	3	0	0			0	100	100		0	0	0					100		67	100	100	100		
<i>Serratia marcescens</i>	6	3	0	0			0	100	100		0	0	0					50		100	100	83	100		

<b>ALL GRAM-POSITIVE BACTERIA</b>	67	100	8	8			58	58	58	50	58	50		60	51					75				84	
<i>Staphylococcus aureus</i> , all isolates	55	82					65	65	65	65	65			68	57	94				91				100	100
- methicillin-susceptible	36	54					100	100	100	100	100			72	69	100				94				100	100
- methicillin-resistant (MRSA)	19	28					0	0	0	0	0			59	35	82				84				100	100
<i>Streptococcus pneumoniae</i>	6	9			100	100								100	100				100					100	
<i>Mycobacterium avium</i>	5	7																							
<i>Mycobacterium tuberculosis</i> complex	5	7																							
<i>Staphylococcus lugdunensis</i>	2	3					100	100	100	100	100			100	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 interpreting the reported
- 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:**

- <sup>^</sup> *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
- <sup>^^</sup> *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.
- <sup>†</sup> *S. maltophilia*: Susceptibility to moxifloxacin was predicted based on levofloxacin susceptibility testing results.

**Toronto General Hospital ANTIBIOGRAM**  
**Wards other than ICUs/Emergency/Transplant Unit**  
**January 1, 2024 - December 31, 2024**

**Urine Isolates – % Susceptible**

	#	%	Ampicillin	Amoxicillin-Clavulanic acid	Piperacillin-Tazobactam	Meropenem	Ertapenem	Cloxacillin	Cefazolin	Cephalexin	Ceftriaxone	Ceftazidime	Doxycycline	Ciprofloxacin	Trimethoprim-Sulfamethoxazole	Nitrofurantoin	Gentamicin	Tobramycin	Amikacin	Vancomycin	Linezolid
≥80% Susceptible																					
70-79% Susceptible																					
≤69% Susceptible																					

<b>ALL BACTERIA</b>	1322	—	21	53	64	71	65		8	2	42		16	59	42	64					
---------------------	------	---	----	----	----	----	----	--	---	---	----	--	----	----	----	----	--	--	--	--	--

<b>ALL GRAM-NEGATIVE BACTERIA</b>	936	100	4	49	62	98	89		8		57	66	10	62	57	62	86	51	96		
<i>Escherichia coli</i>	470	50	3	58	67	100	100		11		71	71	20	48	55	98	84	33	97		
<i>Klebsiella pneumoniae</i>	164	18	0	67	66	99	94		2		71	71	0	65	63	24	84	34	93		
<i>Pseudomonas aeruginosa</i>	92	10			83	82						89		77			83	93	91		
<i>Proteus mirabilis</i>	55	6	33	94	98	100	100		40		98	98	0	80	67	4	94	100	100		
<i>Enterobacter cloacae</i>	42	4	0	0	0	100	100		0	0	0	0		90	88	40	100	100	100		
<i>Klebsiella oxytoca</i>	32	3	0	78	84	100	100		0		84	84		91	78	94	91	25	100		
<i>Morganella morganii</i>	22	2	0	0	0	95	95		0	0	0	0		64	73	0	86	100	100		
<i>Klebsiella aerogenes</i>	15	2	0	0	0	100	100		0	0	0	0		93	93	20	100	100	100		
<i>Citrobacter freundii</i>	14	1	0	0	0	100	100		0	0	0	0		93	79	93	93	93	100		
<i>Serratia marcescens</i>	10	1	0	0	0	100	100		0	0	0	0		90	100	0	100	90	90		
<i>Citrobacter koseri</i>	9	1	0	0	0	100	100		0	0	0	0		100	100	56	100	100	100		
<i>Citrobacter braakii</i>	6	1	0	0	0	100	100		0	0	0	0		83	100	100	100	100	100		

<b>ALL GRAM-POSITIVE BACTERIA</b>	386	100	62	62	69	7	7	7	7	7	7		30	52	8	71				89	
<i>Enterococcus faecalis</i> , all isolates	235	61	100	100	99								23	80		99				100	100
- vancomycin-susceptible	235	61	100	100	99								23	80		99				100	100
<i>Enterococcus faecium</i> , all isolates	116	30	8	8	8								27	8		12				69	100
- vancomycin-susceptible	81	21	10	10	10								37	12		10				99	100
- vancomycin-resistant (VRE)	35	9	3	3	3								3	0		15				0	100
<i>Staphylococcus aureus</i> , all isolates	33	9			88	88	88	88	88	88			97	12	100	97				100	100
- methicillin-susceptible	29	8			100	100	100	100	100	100			100	0	100	97				100	100
- methicillin-resistant (MRSA)	4	1			0	0	0	0	0	0			75	100	100	100				100	100
<i>Enterococcus avium</i>	3	1	100	100	100								67	100		33				100	
<i>Enterococcus raffinosus</i>	3	1	33	33	33								33	100		100				100	
<i>Enterococcus species</i>	2	1	100	100	100								100	100		0				100	
<i>Staphylococcus lugdunensis</i>	2	1			100	100	100	100	100	100			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 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.

**Toronto General Hospital ANTIBIOGRAM**  
**Wards other than ICUs/Emergency/Transplant Unit**  
**January 1, 2024 - December 31, 2024**

**All Specimens – % Susceptible**

#	%	Susceptibility Legend	
		≥80% Susceptible	<div><div></div></div>
		70-79% Susceptible	<div><div></div></div>
		≤69% Susceptible	<div><div></div></div>
		Ampicillin	
		Amoxicillin-Clavulanic acid	
		Penicillin	
		Penicillin IV (meningitis)	
		Penicillin IV (non-meningitis)	
		Piperacillin-Tazobactam	
		Meropenem	
		Ertapenem	
		Cloxacillin	
		Cefazolin	
		Cephalexin	
		Ceftriaxone	
		Ceftriaxone (meningitis)	
		Ceftriaxone (non-meningitis)	
		Ceftazidime	
		Clindamycin	
		Erythromycin	
		Doxycycline	
		Ciprofloxacin	
		Moxifloxacin	
		Trimethoprim-Sulfamethoxazole	
		Nitrofurantoin	
		Gentamicin	
		Tobramycin	
		Amikacin	
		Vancomycin	
		Linezolid	

<b>ALL BACTERIA</b>	<b>3886</b>	<b>—</b>	<b>16</b>	<b>30</b>			<b>57</b>	<b>63</b>	<b>54</b>		<b>31</b>	<b>15</b>	<b>44</b>						<b>51</b>	<b>75</b>		<b>53</b>	<b>72</b>						
---------------------	-------------	----------	-----------	-----------	--	--	-----------	-----------	-----------	--	-----------	-----------	-----------	--	--	--	--	--	-----------	-----------	--	-----------	-----------	--	--	--	--	--	--

<b>ALL GRAM-NEGATIVE BACTERIA</b>	<b>1648</b>	<b>100</b>	<b>10</b>	<b>42</b>			<b>64</b>	<b>97</b>	<b>75</b>		<b>22</b>	<b>8</b>	<b>49</b>			<b>66</b>			<b>22</b>	<b>66</b>		<b>54</b>	<b>49</b>	<b>89</b>	<b>84</b>	<b>97</b>		
<i>Escherichia coli</i>	630	38	19	58			66	100	99		30		70			70			22	48		56	97	85	72	97		
<i>Pseudomonas aeruginosa</i>	320	19					82	86								86				77				88	97	93		
<i>Klebsiella pneumoniae</i>	253	15	0	73			71	99	98		52	50	76			76			67	68		71	21	87	79	97		
<i>Enterobacter cloacae</i>	104	6	0	0			1	100	97		0	0	0			0				94		81	28	99	99	99		
<i>Proteus mirabilis</i>	80	5	28	92			96	100	100		33		96			96			0	80		68	4	94	100	100		
<i>Klebsiella oxytoca</i>	56	3	0	82			86	100	100		15		87			87				91		84	85	95	86	100		
<i>Serratia marcescens</i>	42	3	0	0			0	100	100		0	0	0			0			100	87		100	2	100	95	97		
<i>Morganella morganii</i>	35	2	0	0			0	97	97		0	0	0			0				60		71	0	89	100	100		
<i>Stenotrophomonas maltophilia</i> <sup>†</sup>	28	2																		71		89	0					
<i>Haemophilus influenzae</i> <sup>^^</sup>	27	2	81																									
<i>Citrobacter freundii</i>	23	1	0	0			0	100	100		0	0	0			0				91		83	87	96	91	100		
<i>Citrobacter braakii</i>	16	1	0	0			0	100	100		0	0	0			0			0	94		100	94	93	93	93		
<i>Citrobacter koseri</i>	15	1	0	0			0	100	100		0	0	0			0				100		100	53	100	100	100		
<i>Moraxella catarrhalis</i> <sup>^</sup>	8	0																										
<i>Acinetobacter species</i>	6	0					83	100			0	50				100			0	83		100		100	100	100		
<i>Acinetobacter baumannii complex</i>	5	0					100	100			0	100				100			0	100		100		100	100	100		

ALL GRAM-POSITIVE BACTERIA	2238	100	21	21	6			53	38	38	32	38	20	39			45	32	72	82		52	89				95
Coagulase-negative staphylococci	906	40						36	36	36	36	36					55	34	89	100		63	100			100	100
Staphylococcus aureus, all isolates	398	18						82	82	82	82	81	81				77	67	95	73		97	98			100	100
- methicillin-susceptible	324	14						100	100	100	100	99	99				79	73	97	67		98	98			100	100
- methicillin-resistant (MRSA)	74	3						1	1	1	1	1	1				67	40	84	100		95	96			100	100
Enterococcus faecalis, all isolates	322	14	99	99				99											24	80		98				100	100
- vancomycin-susceptible	322	14	99	99				99											24	80		98				100	100
Enterococcus faecium, all isolates	195	9	5	5				5											27	9		11				70	100
- vancomycin-susceptible	136	6	7	7				7											37	12		9				100	100
- vancomycin-resistant (VRE)	59	3	2	2				2											3	3		15				0	100
Viridans group streptococci*	65	3			65									100													100
Staphylococcus lugdunensis	38	2						87	87	87	87	87	87				87	84	87			97	100			100	100
Streptococcus anginosus group**	38	2			100									100													100
Streptococcus pneumoniae	29	1				100	100										100	75			100					100	
Group A streptococci**	22	1			100												73	75								100	
Group B streptococci**	12	1			100												64	64								100	
Enterococcus gallinarum	9	0	100	100				100											100	100		100				22	88
Mycobacterium tuberculosis complex	9	0																									
Enterococcus avium	7	0	100	100				100											67	100		33				100	100
Enterococcus raffinosus	7	0	29	29				29											33	100		100				100	
Group G streptococci**	7	0			100												29	29								100	
Mycobacterium avium	7	0																									

**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:**

- Only a limited number of coagulase negative staphylococci isolates were tested for susceptibilities. The vast majority of coagulase-negative staphylococci are susceptible to vancomycin. If you have any questions, please contact the UHN/MSH Department of Microbiology.
- All specimens exclude surveillance samples.

**Organism-Specific Notes:**

- <sup>^</sup> *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.
- <sup>^^</sup> *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
- <sup>\*\*</sup> 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.
- <sup>†</sup> 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.
- <sup>†</sup> *S. maltophilia*: Susceptibility to moxifloxacin was predicted based on levofloxacin susceptibility testing results.
- <sup>††</sup> *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.