

**Toronto Western Hospital ANTIBIOGRAM**  
**All Inpatients**  
**January 1, 2019 - December 31, 2019**

**Blood Isolates – % Susceptible**

		<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="font-size: small;"> <p>≥80% Susceptible <span style="color: green;">■</span></p> <p>70-79% Susceptible <span style="color: yellow;">■</span></p> <p>≤69% Susceptible <span style="color: red;">■</span></p> </div> <div style="font-size: x-small; text-align: center;"> <p>#      %</p> </div> </div>																Ampicillin	Amoxicillin-Clavulanic acid	Penicillin	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
<b>ALL BACTERIA</b>	405	—	11	23	58	58	56	48	32	56							65	23			75	79																						
<b>ALL GRAM-NEGATIVE BACTERIA</b>	103	100	17	64	76	96	87	54	68	72		77					85	83		70	46	92	91	100																				
<i>Escherichia coli</i>	48	47	26	79	90	100	100	64	88	94		94					85	85		71	88	85	88	100																				
<i>Klebsiella pneumoniae</i>	24	23	0	75	75	100	100	71	75	75		75					83	83		75	4	96	88	100																				
<i>Pseudomonas aeruginosa</i>	11	11			55	64						55					73	73				100	100	100																				
<i>Proteus mirabilis</i>	6	6	83	100	100	100	100	100	100	100		100					83	83		100	0	100	100	100																				
<i>Enterobacter cloacae</i>	4	4	0	0	0	100	100	0	0	0		0					100	100		100	25	100	100	100																				
<i>Klebsiella oxytoca</i>	4	4	0	100	100	100	100	50	100	100		100					100	100		100	75	100	100	100																				
<b>ALL GRAM-POSITIVE BACTERIA</b>	302	100	9	9	3	51	45	45	42	45	19	51				58	30	89			77	91				99	99																	
Coagulase-negative staphylococci	195	65				40	40	40	40	40						60	20	100		100	80	100				100	100	100																
<i>Staphylococcus aureus</i> , all isolates	54	18				91	91	91	91	91						76	68	98		98	100	100				100	100	100																
- methicillin-susceptible	49	16				100	100	100	100	100						76	73	100		100	100	100				100	100	100																
- methicillin-resistant (MRSA)	5	2				0	0	0	0	0						80	20	80		80	100	100				100	100	100																
<i>Enterococcus faecalis</i> , all isolates	17	6	100	100		100																				100	100																	
- vancomycin-susceptible	17	6	100	100		100																				100	100																	
- vancomycin-resistant (VRE)	0	0																																										
Viridans group streptococci*	12	4								100																100																		
<i>Enterococcus faecium</i> , all isolates	8	3	13	13		13																				50	50																	
- vancomycin-susceptible	4	1	25	25		25																				100																		
- vancomycin-resistant (VRE)	4	1	0	0		0																				0	100	100																
- vancomycin-susceptible (vanA+)	0	0																																										
<i>Streptococcus pneumoniae</i>	5	2										100	100							100						100																		
Group B streptococci**	5	2			100											80	80									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:**

- 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.

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**All Inpatients**  
**January 1, 2019 - December 31, 2019**

**Respiratory Isolates – % Susceptible**

		<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>≥80% Susceptible <span style="color: green;">■</span></p> <p>70-79% Susceptible <span style="color: yellow;">■</span></p> <p>≤69% Susceptible <span style="color: red;">■</span></p> </div> </div>																								
#	%	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
<b>ALL BACTERIA</b>	213	—	12	21			77	84	52		33	56									64					
<b>ALL GRAM-NEGATIVE BACTERIA</b>	126	100	18	33			73	91	37		4	39			72				78		44	89	88	97		
<i>Pseudomonas aeruginosa</i>	48	38					85	77							90				88			92	98	96		
<i>Haemophilus influenzae</i> <sup>^^</sup>	22	17	77																							
<i>Klebsiella pneumoniae</i>	13	10	0	69			77	100	100		40	77			77				85		77	85	70	100		
<i>Escherichia coli</i>	12	10	17	25			25	100	100		0	33			33				50		58	67	50	100		
<i>Serratia marcescens</i>	6	5	0	0			0	100	100		0	0			0				83		100	100	100	100		
<i>Stenotrophomonas maltophilia</i> <sup>†</sup>	6	5																		67	100					
<b>ALL GRAM-POSITIVE BACTERIA</b>	87	100	3	3	3		82	74	74	71	74	78				78	66				89				94	
<i>Staphylococcus aureus</i> , all isolates	69	79					87	87	87	87	87					84	71	99			98				100	100
- methicillin-susceptible	60	69					100	100	100	100	100					85	78	100			98				100	100
- methicillin-resistant (MRSA)	9	10					0	0	0	0	0					78	22	89			100				100	100
<i>Streptococcus pneumoniae</i>	9	10			25	100							67	100		62	56			100					100	
<i>Mycobacterium tuberculosis complex</i>	5	6																								
Coagulase-negative staphylococci	4	5					50	50	50	50	50					100	100	100			50				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:**

<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 Western Hospital ANTIBIOGRAM

## All Inpatients

### January 1, 2019 - December 31, 2019

#### 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	
<b>ALL BACTERIA</b>	741	—	32	62		75	79	72		3	51	54		8	74	54	72						
<b>ALL GRAM-NEGATIVE BACTERIA</b>	574	100	19	58		71	99	90		1	63	67	75		77	67	68	90	86	99			
<i>Escherichia coli</i>	362	63	24	66		73	100	100		2	73	78	78		70	68	95	87	82	100			
<i>Klebsiella pneumoniae</i>	70	12	0	84		83	100	100		0	86	86	86		86	83	31	93	81	100			
<i>Pseudomonas aeruginosa</i>	54	9				89	91						89		89			93	98	91			
<i>Proteus mirabilis</i>	33	6	74	94		100	100	100			97	100	100		79	79	0	94	95	100			
<i>Enterobacter cloacae</i>	25	4	0	0		0	100	88		0	0	0	0		96	96	48	96	96	100			
<i>Serratia marcescens</i>	5	1	0	0		0	100	100		0	0	0	0		100	100	0	100	100	100			
<i>Klebsiella oxytoca</i>	5	1	0	100		100	100	100		100	100	100	100		100	100	60	100	100	100			
<i>Citrobacter freundii</i>	5	1	0	0		0	100	100		0	0	0	0		100	100	100	100	100	100			
<i>Morganella morganii</i>	5	1	0	0		0	100	100		0	0	0	0		100	100	0	100	100	100			
<b>ALL GRAM-POSITIVE BACTERIA</b>	167	100	76	76	1	86	10	10	10	10	10	10		34	65	10	85					98	
<i>Enterococcus faecalis</i> , all isolates	124	74	100	100		100								24	85		98					100	
- vancomycin-susceptible	124	74	100	100		100								24	85		98					100	
- vancomycin-resistant (VRE)	0	0																					
<i>Enterococcus faecium</i> , all isolates	24	14	8	8		8								38	8		13					83	100
- vancomycin-susceptible	20	12	10	10		10								40	10		15					100	100
- vancomycin-resistant (VRE)	4	2	0	0		0								25	0		0					0	100
- vancomycin-susceptible (vanA+)	0	0																					
<i>Staphylococcus aureus</i> , all isolates	17	10				88	88	88	88	88	88			94		100	94					100	100
- methicillin-susceptible	15	9				100	100	100	100	100	100			93		100	93					100	100
- methicillin-resistant (MRSA)	2	1				0	0	0	0	0	0			100		100	100					100	100
Coagulase-negative staphylococci	1	1				100	100	100	100	100				100	100	0	100					100	
Group B streptococci**	1	1				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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**January 1, 2019 - December 31, 2019**

**All Non-Urine Isolates – % Susceptible**

		<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>≥80% Susceptible <span style="color: green;">■</span></p> <p>70-79% Susceptible <span style="color: yellow;">■</span></p> <p>≤69% Susceptible <span style="color: red;">■</span></p> </div> </div>																								
#	%	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
<b>ALL BACTERIA</b>	1011	—	12	24			70	74	62		50	59									71					
<b>ALL GRAM-NEGATIVE BACTERIA</b>	357	100	11	45			73	96	63		28	51			73					84	57	92	91	99		
<i>Escherichia coli</i>	99	28	23	70			78	100	100		59	83			83					80	67	85	84	100		
<i>Pseudomonas aeruginosa</i>	92	26					87	87							90					91		96	99	98		
<i>Klebsiella pneumoniae</i>	49	14	0	80			82	100	100		67	82			82					86	76	92	84	100		
<i>Haemophilus influenzae</i> <sup>^^</sup>	23	6	4																							
<i>Enterobacter cloacae</i>	23	6	0	0			0	91	96		0	0			0					100	87	96	91	100		
<i>Proteus mirabilis</i>	16	4	82	100			100	100	100		33	100			100					88	94	94	92	100		
<i>Serratia marcescens</i>	14	4	0	0			0	100	100		0	0			0					93	100	100	100	100		
<i>Klebsiella oxytoca</i>	12	3	0	92			100	100	100		29	100			100					100	100	100	100	100		
<i>Stenotrophomonas maltophilia</i> <sup>*</sup>	11	3																		80	100					
<i>Citrobacter koseri</i>	6	2	0	0			0	100	100		0	0			0					100	100	100	100	100		
<i>Providencia stuartii</i>	5	1	0	0			0	100	100		0	0			0					60	80	100	100	100		
<b>ALL GRAM-POSITIVE BACTERIA</b>	654	100	13	13	6		69	62	62	56	62	64				68	52				79				98	
Coagulase-negative staphylococci	290	44					49	49	49	49	49					71	45	93			80				100	100
<i>Staphylococcus aureus</i> , all isolates	247	38					89	89	89	89	89					80	70	98			99				100	100
- methicillin-susceptible	221	34					100	100	100	100	100					81	76	99			99				100	100
- methicillin-resistant (MRSA)	26	4					0	0	0	0	0					73	15	92			100				100	100
<i>Enterococcus faecalis</i> , all isolates	39	6	100	100			100																		100	
- vancomycin-susceptible	39	6	100	100			100																		100	
- vancomycin-resistant (VRE)	0	0																								
Viridans group streptococci <sup>*</sup>	25	4			64						100														100	
<i>Enterococcus faecium</i> , all isolates	17	3	23	23			23																		59	
- vancomycin-susceptible	10	2	30	30			30																		100	
- vancomycin-resistant (VRE)	7	1	14	14			14																		0	86
- vancomycin-susceptible (vanA+)	0	0																								
<i>Streptococcus pneumoniae</i>	15	2			70	100							89	100		62	67			100					100	
Group A streptococci <sup>**</sup>	9	1		100												100	100								100	
<i>Mycobacterium tuberculosis complex</i>	7	1																								
Group B streptococci <sup>**</sup>	5	1		100												80	80								100	

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- Susceptibility to doxycycline was predicted based on tetracycline susceptibility testing results.

**Organism-Specific Notes:**

- <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> 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.