

Toronto General Hospital ANTIBIOGRAM
Wards other than ICUs/Emergency/Transplant Unit
January 1, 2019 - December 31, 2019

Blood Isolates – % Susceptible

	#	%	Antibiotics																				
			Ampicillin	Amoxicillin-Clavulanic acid	Penicillin	Piperacillin-Tazobactam	Meropenem	Ertapenem	Cloxacillin	Cefazolin	Ceftriaxone	Ceftazidime	Clindamycin	Erythromycin	Doxycycline	Ciprofloxacin	Moxifloxacin	Trimethoprim-Sulfamethoxazole	Gentamicin	Tobramycin	Amikacin	Vancomycin	Linezolid
ALL BACTERIA	636	—	10	23		43	50	46		29	43						60						
ALL GRAM-NEGATIVE BACTERIA	220	100	13	50		66	100	85		38	63	70			75		61	93	87	98			
<i>Escherichia coli</i>	98	45	21	58		71	100	100		49	80	80			64		55	89	81	96			
<i>Klebsiella pneumoniae</i>	45	20	0	82		84	100	100		75	89	89			84		73	98	89	100			
<i>Enterobacter cloacae</i>	21	10	0	0		0	95	86		0	0	0			86		71	95	90	100			
<i>Pseudomonas aeruginosa</i>	20	9				90	100					90			95			95	100	100			
<i>Klebsiella oxytoca</i>	10	5	0	60		70	100	100		0	70	70			90		80	100	90	100			
<i>Proteus mirabilis</i>	7	3	75	86		86	100	100		20	86	86			71		86	100	100	100			
<i>Serratia marcescens</i>	6	3	0	0		0	100	100		0	0	0			100		100	100	100	100			
<i>Stenotrophomonas maltophilia</i>	5	2													100	100							
ALL GRAM-POSITIVE BACTERIA	416	100	8	8	2	31	24	24	22	24	32		43	33			59					98	
Coagulase-negative staphylococci	239	57				10	10	10	10	10			44	30	90		60					100	100
<i>Staphylococcus aureus</i> , all isolates	77	19				88	88	88	88	88			72	62	96		99					100	100
- methicillin-susceptible	68	16				100	100	100	100	100			71	66	97		99					100	100
- methicillin-resistant (MRSA)	9	2				0	0	0	0	0			78	33	89		100					100	100
<i>Enterococcus faecium</i> , all isolates	32	8	3	3		3																78	
- vancomycin-susceptible	25	6	4	4		4																100	
- vancomycin-resistant (VRE)	7	2	0	0		0																0	100
- vancomycin-susceptible (vanA+)	0	0																					
Viridans group streptococci*	27	6								93													100
<i>Enterococcus faecalis</i> , all isolates	24	6	100	100		100																	100
- vancomycin-susceptible	24	6	100	100		100																	100
- vancomycin-resistant (VRE)	0	0																					
Group B streptococci**	8	2			100								50	50									100
<i>Streptococcus pneumoniae</i>	7	2											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.

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

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Respiratory Isolates – % Susceptible

		<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: left;"> <p>≥80% Susceptible ■</p> <p>70-79% Susceptible ■</p> <p>≤69% Susceptible ■</p> </div> <div style="text-align: center;"> <p># %</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
ALL BACTERIA	275	—	11	19			76	80	26		14	43									39					
ALL GRAM-NEGATIVE BACTERIA	209	100	14	25			78	89	17		1	35			73				68		24	83	87	90		
<i>Pseudomonas aeruginosa</i>	107	51					80	81							79				71			82	88	89		
<i>Haemophilus influenzae</i> ^{^^}	37	18	68																							
<i>Stenotrophomonas maltophilia</i> [†]	13	6																		77	92					
<i>Moraxella catarrhalis</i> [^]	13	6																								
<i>Escherichia coli</i>	9	4	25	44			67	100	100		0	78			78				67		56	78	62	88		
<i>Klebsiella pneumoniae</i>	9	4	0	67			67	100	100		33	78			78				89		67	89	86	100		
<i>Enterobacter cloacae</i>	6	3	0	0			0	100	83		0	0			0				83		83	83	83	80		
<i>Serratia marcescens</i>	6	3	0	0			0	100	100		0	0			0				100		100	100	100	100		
ALL GRAM-POSITIVE BACTERIA	66	100					68	53	53	53	53	66							64	50					95	
<i>Staphylococcus aureus</i> , all isolates	49	74					71	71	71	71	71								65	55	87				100	100
- methicillin-susceptible	35	53					100	100	100	100	100								74	66	94				100	100
- methicillin-resistant (MRSA)	14	21					0	0	0	0	0								43	29	71				100	100
<i>Streptococcus pneumoniae</i>	10	15			0	100							67	100					89	50		100			100	
<i>Enterococcus faecium</i> , all isolates	2	3	0	0			0																		100	
- vancomycin-susceptible	2	3	0	0			0																		100	
- vancomycin-resistant (VRE)	0	0																								
- vancomycin-susceptible (vanA+)	0	0																								
<i>Mycobacterium tuberculosis</i> complex	3	5																								
Viridans group streptococci [*]	2	3									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.
- ^{*} 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.

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Skin, Wound and Abscess Isolates – % Susceptible

	#	%	Ampicillin	Amoxicillin-Clavulanic acid	Penicillin	Piperacillin-Tazobactam	Meropenem	Ertapenem	Cloxacillin	Cefazolin	Ceftriaxone	Ceftazidime	Clindamycin	Erythromycin	Doxycycline	Ciprofloxacin	Moxifloxacin	Trimethoprim-Sulfamethoxazole	Gentamicin	Tobramycin	Amikacin	Vancomycin	Linezolid

≥80% Susceptible ■
 70-79% Susceptible ■
 ≤69% Susceptible ■

ALL BACTERIA	453	—	13	25	65	74	61			35	46							59					
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ALL GRAM-NEGATIVE BACTERIA	216	100	6	31	59	96	69			15	38	62					81	53	94	93	99		
<i>Pseudomonas aeruginosa</i>	63	29			79	87						84					83		97	100	100		
<i>Escherichia coli</i>	62	29	11	47	63	100	100			26	65	65					63	55	92	85	96		
<i>Klebsiella pneumoniae</i>	32	15	0	72	75	100	92			50	81	81					78	81	84	84	100		
<i>Enterobacter cloacae</i>	28	13	0	0	0	100	92			0	0	0					100	89	100	100	100		
<i>Klebsiella oxytoca</i>	8	4	0	100	100	100	100			0	100	100					100	100	100	100	100		
<i>Proteus mirabilis</i>	8	4	86	88	88	100	100			0	88	88					100	88	100	100	100		
<i>Serratia marcescens</i>	5	2	0	0	0	100	100			0	0	0					100	100	100	100	100		

ALL GRAM-POSITIVE BACTERIA	237	100	20	20	3	70	54	54	50	54	54		52	44				65				97	
<i>Staphylococcus aureus</i> , all isolates	131	55				82	82	82	82	82			71	62	97			98				100	100
- methicillin-susceptible	108	46				100	100	100	100	100			74	73	97			97				100	100
- methicillin-resistant (MRSA)	23	10				0	0	0	0	0			57	9	96			100				100	100
<i>Enterococcus faecalis</i> , all isolates	36	15	100	100		100																100	
- vancomycin-susceptible	36	15	100	100		100																100	
- vancomycin-resistant (VRE)	0	0																					
Coagulase-negative staphylococci	33	14				33	33	33	33	33			76	52	91			67				100	100
<i>Enterococcus faecium</i> , all isolates	28	12	7	7		7																79	
- vancomycin-susceptible	22	9	9	9		9																100	
- vancomycin-resistant (VRE)	6	3	0	0		0																0	100
- vancomycin-susceptible (vanA+)	0	0																					
Group B streptococci**	4	2				100							67	67								100	
Group A streptococci**	4	2				100							75	75								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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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	952	—	31	57		68	68	62		4	40	45		12	68	41	65						
ALL GRAM-NEGATIVE BACTERIA	636	100	14	54		66	98	89		2	57	63	70		75	58	62	90	87	99			
<i>Escherichia coli</i>	350	55	19	62		70	100	99		4	68	77	77	0	66	56	93	89	86	99			
<i>Klebsiella pneumoniae</i>	102	16	0	75		76	98	95		0	76	78	78		81	63	29	88	80	100			
<i>Pseudomonas aeruginosa</i>	51	8				84	88						88		82			98	98	98			
<i>Enterobacter cloacae</i>	36	6	0	0		0	97	83		0	0	0	0		92	83	33	97	94	100			
<i>Proteus mirabilis</i>	35	6	60	91		97	100	100		0	89	97	97		77	69	0	80	81	100			
<i>Klebsiella oxytoca</i>	20	3	0	85		95	100	100		0	70	95	95		100	80	75	100	100	100			
<i>Morganella morganii</i>	13	2	0	0		0	100	100		0	0	0	0		85	77	0	92	85	100			
<i>Serratia marcescens</i>	10	2	0	0		0	100	90		0	0	0	0		100	90	0	100	100	100			
<i>Citrobacter koseri</i>	8	1	0	0		0	100	100		0	0	0	0		100	100	88	100	100	100			
ALL GRAM-POSITIVE BACTERIA	316	100	65	65		72	7	7	7	7	7	7	7		35	56	7	72				95	99
<i>Enterococcus faecalis</i> , all isolates	198	63	100	100		100									28	87		98				99	100
- vancomycin-susceptible	198	63	100	100		100									28	87		98				99	100
- vancomycin-resistant (VRE)	0	0																					
<i>Enterococcus faecium</i> , all isolates	89	28	3	3		3									32	3		6				84	100
- vancomycin-susceptible	75	24	4	4		4									32	4		7				100	100
- vancomycin-resistant (VRE)	14	4	0	0		0									29	0		0				0	100
- vancomycin-susceptible (vanA+)	0	0																					
<i>Staphylococcus aureus</i> , all isolates	23	7				96	96	96	96	96	96				95		100	100				100	100
- methicillin-susceptible	22	7				100	100	100	100	100	100				95		100	100				100	100
- methicillin-resistant (MRSA)	1	0				0	0	0	0	0	0				100		100	100				100	100
Coagulase-negative staphylococci	3	1				0	0	0	0	0					100		0	100				100	100
<i>Enterococcus gallinarum</i>	3	1	100	100		100									67	67		100				100	

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