

Toronto General Hospital ANTIBIOGRAM
Wards other than ICUs/Emergency/Transplant Unit
January 1, 2020 - December 31, 2020

Blood Isolates – % Susceptible

				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
#	%																									
ALL BACTERIA	562	—	8	23		44	50	45		29	42										62					
ALL GRAM-NEGATIVE BACTERIA	186	100	3	49		67	98	84		35	57				69				76		61	94	91	98		
<i>Escherichia coli</i>	77	41	0	55		68	100	100		44	71				71				61		52	88	84	97		
<i>Klebsiella pneumoniae</i>	46	25	0	83		83	98	93		67	85				85				85		74	96	91	98		
<i>Pseudomonas aeruginosa</i>	22	12				95	91								95				82			100	100	95		
<i>Enterobacter cloacae</i>	20	11	0	0		0	95	85		0	0				0				95		100	100	100	100		
<i>Klebsiella oxytoca</i>	6	3	0	83		83	100	100		0	83				83				100		100	100	100	100		
<i>Proteus mirabilis</i>	6	3	100	83		100	100	100		17	100				100				83		100	100	100	100		
ALL GRAM-POSITIVE BACTERIA	376	100	11	11	3	33	26	26	22	26	34					47	36				62				97	
Coagulase-negative staphylococci	217	58				15	15	15	15	15						50	33	92			67				100	100
<i>Staphylococcus aureus</i> , all isolates	61	16				85	85	85	85	85						77	70	92			98				100	100
- methicillin-susceptible	52	14				100	100	100	100	100						77	71	92			98				100	100
- methicillin-resistant (MRSA)	9	2				0	0	0	0	0						78	67	89			100				100	100
<i>Enterococcus faecalis</i>	27	7	96	96		96																			100	
<i>Enterococcus faecium</i> , all isolates	25	7	8	8		8																			64	64
- vancomycin-susceptible	16	4	12	12		12																			100	
- vancomycin-resistant (VRE)	9	2	0	0		0																			0	100
Viridans group streptococci ^o	23	6										91													100	
<i>Streptococcus anginosus</i> group ^o	6	2			0						67														67	
Group B streptococci**	5	1			100											60	60								100	
<i>Streptococcus pneumoniae</i>	5	1										100	100				80			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.
- ^o 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.
- ^o 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	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	208	—	11	17			76	84	40		26	45									45						
ALL GRAM-NEGATIVE BACTERIA	142	100	13	22			74	86	21		1	27			72				70		21	81	76	88			
<i>Pseudomonas aeruginosa</i>	79	56					81	76							82				73			80	86	85			
<i>Haemophilus influenzae</i> ^{^^}	23	16	78																								
<i>Klebsiella pneumoniae</i>	8	6	0	62			62	100	100		0	62			62				75		62	88	0	100			
<i>Escherichia coli</i>	6	4	0	33			50	100	100		0	50			50				33		33	67	0	100			
<i>Enterobacter cloacae</i>	5	4	0	0			0	100	80		0	0			0				80		40	100	100	100			
<i>Klebsiella aerogenes</i>	5	4	0	0			0	100	100		0	0			0				100		100	100	100	100			
ALL GRAM-POSITIVE BACTERIA	66	100	6	6	6		80	80	80	74	80	83			71	60					92						95
<i>Staphylococcus aureus</i> , all isolates	56	85					86	86	86	86	86				72	61	91				97					100	100
- methicillin-susceptible	48	73					100	100	100	100	100				75	69	90				96					100	100
- methicillin-resistant (MRSA)	8	12					0	0	0	0	0				57	14	100				100					100	100
<i>Streptococcus pneumoniae</i>	4	6				100	100								100	100					100	100				100	
<i>Mycobacterium tuberculosis complex</i>	3	5																									
Viridans group streptococci ^o	2	3										100														100	
Coagulase-negative staphylococci	1	2					100	100	100	100	100				100	0	100				100					100	100

General Notes:

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

Organism-Specific Notes:

- ^{^^} *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.
- ^o 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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Skin, Wound and Abscess Isolates – % Susceptible

	#	%	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	Vancamycin	Linezolid

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

ALL BACTERIA	466	—	10	24		62	72	52		31	44									55					
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ALL GRAM-NEGATIVE BACTERIA	228	100	28		60	96	57		13	33			62					80		47	89	78	90		
<i>Pseudomonas aeruginosa</i>	75	33			84	93							85					85		47	89	78	90		
<i>Escherichia coli</i>	54	24	0	46	54	98	96		25	61			61					65		46	80	56	96		
<i>Enterobacter cloacae</i>	23	10	0	0	0	100	100		0	0			0					91		91	100	96	100		
<i>Klebsiella pneumoniae</i>	23	10	0	87	87	96	86		71	87			87					91		74	91	71	86		
<i>Proteus mirabilis</i>	13	6	0	85	100	100			0	100			100					77		85	100				
<i>Klebsiella oxytoca</i>	9	4	0	89	89	100	100		0	89			89					100		89	89	100	100		
<i>Serratia marcescens</i>	9	4	0	0	0	100	100		0	0			0					100		100	100	89	100		
<i>Citrobacter freundii</i>	5	2	0	0	0	100	100		0	0			0					80		80	100	100	100		

ALL GRAM-POSITIVE BACTERIA	238	100	20	20	3	65	48	48	45	48	53			48	39					63					95
<i>Staphylococcus aureus</i> , all isolates	117	49				83	83	83	83	83					74	65	92			99				100	100
- methicillin-susceptible	97	41				100	100	100	100	100					76	70	93			99				100	100
- methicillin-resistant (MRSA)	20	8				0	0	0	0	0					65	40	85			100				100	100
<i>Enterococcus faecalis</i>	36	15	100	100		100																		100	
Coagulase-negative staphylococci	35	15				29	29	29	29	29				54	23	88				63				100	100
<i>Enterococcus faecium</i> , all isolates	28	12	7	7		7																		64	
- vancomycin-susceptible	18	8	11	11		11																		100	
- vancomycin-resistant (VRE)	10	4	0	0		0																		0	100
<i>Streptococcus anginosus</i> group ^{°°}	9	4			0						100													100	

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

Organism-Specific Notes:

°° *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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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
			<div style="display: flex; align-items: center;"> <div style="width: 20px; height: 10px; background-color: #90EE90; margin-right: 5px;"></div> ≥80% Susceptible <div style="width: 20px; height: 10px; background-color: #FFFF00; margin-right: 5px;"></div> 70-79% Susceptible <div style="width: 20px; height: 10px; background-color: #FF0000; margin-right: 5px;"></div> ≤69% Susceptible </div>																		

ALL BACTERIA	930	–	21	58	70	71	61		6	41	45			69	45	64					
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ALL GRAM-NEGATIVE BACTERIA	#	%	Ampicillin	Amoxicillin-Clavulanic acid	Piperacillin-Tazobactam	Meropenem	Ertapenem	Cloxacillin	Cefazolin	Cephalexin	Ceftriaxone	Ceftazidime	Doxycycline	Ciprofloxacin	Trimethoprim-Sulfamethoxazole	Nitrofurantoin	Gentamicin	Tobramycin	Amikacin	Vancomycin	Linezolid
<i>Escherichia coli</i>	326	49	2	65	74	100	98		10	73	79	79	100	63	61	94	86	40	100		
<i>Klebsiella pneumoniae</i>	117	18	0	78	79	99	100		9	77	82	82	0	84	65	24	95	75	88		
<i>Pseudomonas aeruginosa</i>	67	10			96	91						97		90			94	99	99		
<i>Enterobacter cloacae</i>	35	5	0	0	0	100	91		0	0	0	0		80	77	46	86	83	100		
<i>Proteus mirabilis</i>	35	5	0	94	97	100	100		0	91	100	100		77	80	0	91	0	100		
<i>Klebsiella oxytoca</i>	19	3	0	95	95	100				63	100	100		100	89	89	100				
<i>Serratia marcescens</i>	13	2	0	0	0	100	100		0	0	0	0		100	100	0	100	100	100		
<i>Citrobacter freundii</i>	11	2	0	0	0	100	91		0	0	0	0		64	64	100	64	100	100		
<i>Klebsiella aerogenes</i>	8	1	0	0	0	100	100		0	0	0	0		100	100	12	100	100	100		
<i>Morganella morganii</i>	8	1	0	0	0	100	100		0	0	0	0		75	75	0	100	100	100		
<i>Citrobacter amalonaticus</i>	6	1	0	0	0	100	100		0	0	0	0		100	83	67	83	100	100		
<i>Citrobacter koseri</i>	6	1	0	0	0	100	100		0	0	0	0		100	100	100	100	100	100		

ALL GRAM-POSITIVE BACTERIA	#	%	Ampicillin	Amoxicillin-Clavulanic acid	Piperacillin-Tazobactam	Meropenem	Ertapenem	Cloxacillin	Cefazolin	Cephalexin	Ceftriaxone	Ceftazidime	Doxycycline	Ciprofloxacin	Trimethoprim-Sulfamethoxazole	Nitrofurantoin	Gentamicin	Tobramycin	Amikacin	Vancomycin	Linezolid
<i>Enterococcus faecalis</i>	180	66	100	100	100								26	84		98				100	100
<i>Enterococcus faecium</i> , all isolates	68	25	2	2	2								10	0		9				76	100
- vancomycin-susceptible	52	19	2	2	2								10	0		10				100	100
- vancomycin-resistant (VRE)	16	6	0	0	0								12	0		6				0	100
<i>Staphylococcus aureus</i> , all isolates	15	6			80	80	80	80	80	80	80		94		100	100				100	100
- methicillin-susceptible	12	4			100	100	100	100	100	100	100		92		100	100				100	100
- methicillin-resistant (MRSA)	3	1			0	0	0	0	0	0	0		100		100	100				100	100
Coagulase-negative staphylococci	3	1			33	33	33	33	33	33			100		33	100				100	100
<i>Enterococcus</i> species	3	1	67	67	67								33	33		67				100	100

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