

Toronto Western Hospital ANTIBIOGRAM

All Inpatients

January 1, 2021 - December 31, 2021

Blood Isolates – % Susceptible

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

ALL BACTERIA	516	—	10	16	50	51	48		38	48						67					
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ALL GRAM-NEGATIVE BACTERIA	100	100	19	49	64	98	86		35	58	69				86	73	90	94	99		
<i>Escherichia coli</i>	38	38	39	61	71	100	100		50	82	82				66	63	79	89	97		
<i>Klebsiella pneumoniae</i>	18	18	0	82	83	100	100		59	88	88				100	100	100	100	100		
<i>Enterobacter cloacae</i>	13	13	0	0	0	100	92		0	0	0				100	85	85	85	100		
<i>Pseudomonas aeruginosa</i>	11	11			100	82					100				91		100	100	100		
<i>Klebsiella oxytoca</i>	7	7	0	100	100	100	100		71	100	100				100	100	100	100	100		

ALL GRAM-POSITIVE BACTERIA	416	100	8	8	47	39	39	39	39	45		42	24			66					99	
Coagulase-negative staphylococci	288	69			38	38	38	38	38			42	19	96		69					100	100
<i>Staphylococcus aureus</i> , all isolates	60	14			92	92	92	92	92			75	67	98		100					100	100
- methicillin-susceptible	55	13			100	100	100	100	100			78	69	100		100					100	100
- methicillin-resistant (MRSA)	5	1			0	0	0	0	0			40	40	80		100					100	100
<i>Enterococcus faecalis</i>	30	7	100	100	100																100	
Viridans group streptococci ^o	22	5								91											100	
<i>Enterococcus faecium</i>	10	2	30	30	30																100	
<i>Streptococcus anginosus</i> group ^{oo}	6	1								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

Organism-Specific Notes:

- ^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.
- ^{oo} *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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All Inpatients
January 1, 2021 - December 31, 2021

Respiratory Isolates – % Susceptible

	#	%	Antibiotics																									
			Ampicillin	Amoxicillin-Clavulanic acid	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		
≥80% Susceptible ■ 70-79% Susceptible ■ ≤69% Susceptible ■																												
ALL BACTERIA	356	—	7	21		76	92	62		39	56								73									
ALL GRAM-NEGATIVE BACTERIA	232	100	10	32		66	95	48		13	38			65				86	59	94	97	96						
<i>Pseudomonas aeruginosa</i>	74	32				86	87							89				96		90	96	94						
<i>Klebsiella pneumoniae</i>	31	13	0	84		84	100	100		67	87			87				100		94	100	100	100					
<i>Escherichia coli</i>	24	10	9	57		65	100	100		27	70			70				83		79	96	100	100					
<i>Haemophilus influenzae</i> ^{^^}	24	10	75																									
<i>Stenotrophomonas maltophilia</i> [†]	15	6																100	100									
<i>Serratia marcescens</i>	14	6	0	0		0	100	100		0	0			0				100		100	100	100	100					
<i>Enterobacter cloacae</i>	12	5	0	0		0	100	100		0	0			0				100		92	100	100	100					
<i>Klebsiella aerogenes</i>	11	5	0	0		0	91	91		0	0			0				91		100	100	100	100					
<i>Klebsiella oxytoca</i>	8	3	0	88		75	100	100		50	88			88				88		88	100	100	100					
<i>Citrobacter koseri</i>	5	2	0	0		0	100	100		0	0			0				100		100	100	100	100					
ALL GRAM-POSITIVE BACTERIA	124	100				92	86	86	86	86	86			78	70				97					98				
<i>Staphylococcus aureus</i> , all isolates	115	93				93	93	93	93	92				78	72	96			99					100	100			
- methicillin-susceptible	107	86				100	100	100	100	99				81	76	97			99					100	100			
- methicillin-resistant (MRSA)	8	6				0	0	0	0	0				43	14	86			100					100	100			
<i>Streptococcus pneumoniae</i>	7	6		100	100							0	100	100	57			100						100	100			
Coagulase-negative staphylococci	1	1				100	100	100	100	100				100	100	100			100					100	100			
<i>Mycobacterium tuberculosis complex</i>	1	1																										
<i>Staphylococcus lugdunensis</i>	1	1				100	100	100	100	100				100	100	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.

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

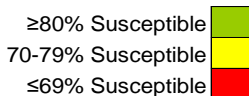
Toronto Western Hospital ANTIBIOGRAM

All Inpatients

January 1, 2021 - December 31, 2021

All 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



ALL BACTERIA	779	–	20	60	75	78	64		7	46	49		6	80	55	67						
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ALL GRAM-NEGATIVE BACTERIA			2	55	71	99	81		7	58	62	74		82	69	61	93	77	96		
<i>Escherichia coli</i>	315	53	1	69	76	100	96		3	74	80	80		75	73	97	89	62	96		
<i>Pseudomonas aeruginosa</i>	77	13			95	96						95		94			99	100	97		
<i>Klebsiella pneumoniae</i>	61	10	0	82	82	100	100		11	85	87	87		87	84	25	97	71	86		
<i>Proteus mirabilis</i>	54	9	17	89	94	100	100		33	91	94	94		91	83	0	96	100	100		
<i>Enterobacter cloacae</i>	26	4	0	0	0	96	92		0	0	0	0		92	92	31	96	88	96		
<i>Klebsiella oxytoca</i>	17	3	0	88	88	94	0		50	69	94	94		94	100	81	100	100	100		
<i>Morganella morganii</i>	14	2	0	0	0	100	100		0	0	0	0		64	79	0	93	100	93		
<i>Klebsiella aerogenes</i>	11	2	0	0	0	100	100		0	0	0	0		91	100	27	100	100	100		
<i>Citrobacter koseri</i>	10	2	0	0	0	100	100		0	0	0	0		100	100	100	100	100	100		

ALL GRAM-POSITIVE BACTERIA			78	78	86	8	8	8	8	8	8		26	72	8	87					98	
<i>Enterococcus faecalis</i> , all isolates	141	79	100	100	100								22	91		99					99	100
<i>Enterococcus faecium</i> , all isolates	22	12	0	0	0								5	0		10					95	100
- vancomycin-susceptible	21	12	0	0	0								5	0		10					100	100
- vancomycin-resistant (VRE)	1	1	0	0	0								0	0		0					0	100
<i>Staphylococcus aureus</i> , all isolates	15	8			87	87	87	87	87	87	87		100		100	100					100	100
- methicillin-susceptible	13	7			100	100	100	100	100	100	100		100		100	100					100	100
- methicillin-resistant (MRSA)	2	1			0	0	0	0	0	0	0		100		100	100					100	100
<i>Staphylococcus lugdunensis</i>	1	1			100	100	100	100	100	100	100		100		100	100					100	100
<i>Staphylococcus saprophyticus</i> [†]	1	1																				

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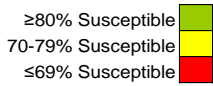
Organism-Specific Notes:

[†] *S. saprophyticus*: Susceptibility testing is not routinely performed. Most urinary tract infections due to this organism respond to nitrofurantoin, trimethoprim/sulfamethoxazole or fluoroquinolones.

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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	1283	—	11	18				63	69	56		42	52									69					
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ALL GRAM-NEGATIVE BACTERIA	462	100	13	34				67	96	58		21	40			66					85	58	94	96	98		
<i>Pseudomonas aeruginosa</i>	138	30						90	89							91					93		94	98	97		
<i>Escherichia coli</i>	96	21	29	62				72	99	98		49	78			78					71	70	87	88	95		
<i>Klebsiella pneumoniae</i>	54	12	0	81				83	100	100		65	85			85					96	94	100	100	100		
<i>Enterobacter cloacae</i>	40	9	0	0				5	100	95		0	0			0					95	89	89	89	100		
<i>Haemophilus influenzae</i> ^{^^}	24	5	75																								
<i>Klebsiella oxytoca</i>	17	4	0	94				88	100	100		67	94			94					94	94	100	100	100		
<i>Proteus mirabilis</i>	17	4	83	94				100	100	100		12	94			94					87	88	100	100	100		
<i>Serratia marcescens</i>	17	4	0	0				0	100	100		0	0			0					100	100	100	100	100		
<i>Stenotrophomonas maltophilia</i>	17	4																			100	100					
<i>Klebsiella aerogenes</i>	16	3	0	0				0	94	94		0	0			0					94	100	100	100	100		
<i>Citrobacter koseri</i>	10	2	0	0				0	100	100		0	0			0					100	100	100	100	100		
<i>Proteus vulgaris</i>	6	1	0	0				17	100	100		0	0			0					80	80	80	100	100		

ALL GRAM-POSITIVE BACTERIA	821	100	10	10	3			61	54	54	52	54	59			61	43				75					97	
Coagulase-negative staphylococci	400	49						48	48	48	48	48				63	35	90			77					100	100
<i>Staphylococcus aureus</i> , all isolates	273	33						90	90	90	90	89				78	69	96			99					100	100
- methicillin-susceptible	249	30						99	99	99	99	98				79	73	97			99					100	100
- methicillin-resistant (MRSA)	24	3						0	0	0	0	0				70	30	87			100					100	100
<i>Enterococcus faecalis</i>	53	6	100	100				100																		100	
Viridans group streptococci ^o	29	4											90													100	
<i>Streptococcus anginosus</i> group ^o	26	3			35								100													100	
<i>Enterococcus faecium</i> , all isolates	21	3	29	29				29																		100	
<i>Staphylococcus lugdunensis</i>	16	2						88	88	88	88	88						94	94	94		100				100	100
<i>Streptococcus pneumoniae</i>	8	1				71	71							33	100			100	50		100					100	
Group A streptococci ^{**}	6	1			100													100	100							100	
Group B streptococci ^{**}	6	1			100													17	33							100	

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