

Toronto Western Hospital ANTIBIOGRAM

Emergency Department

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 ■																				
#	%																			

ALL BACTERIA	997	—	13	67	77	85	79		11	3	64		5	72	66	75				
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ALL GRAM-NEGATIVE BACTERIA	825	100	1	66	75	100	92		10		74	78		73	76	73	93	67	100	
<i>Escherichia coli</i>	541	66	2	72	78	100	100		15		82	82	0	65	74	97	91	53	100	
<i>Klebsiella pneumoniae</i>	117	14	0	89	90	100	80		0		93	93	0	86	91	32	98	86	100	
<i>Proteus mirabilis</i>	44	5	0	93	95	100	100		0		95	95		82	80	0	98	100	100	
<i>Pseudomonas aeruginosa</i>	36	4			100	100					100		89			89	100	100		
<i>Enterobacter cloacae</i>	18	2	0	0	0	100	100		0	0	0	0	100	100	39	94	100	100		
<i>Klebsiella oxytoca</i>	13	2	0	92	92	100	100		0		92	92	77	100	62	100	100	100		
<i>Citrobacter koseri</i>	11	1	0	0	0	100	100		0	0	0	0	100	100	82	100	100	100		
<i>Serratia marcescens</i>	10	1	0	0	0	100	100		0	0	0	0	90	100	0	100	100	100		
<i>Morganella morganii</i>	8	1	0	0	0	100	100		0	0	0	0	75	88	0	100	100	100		
<i>Klebsiella aerogenes</i>	8	1	0	0	0	100	100		0	0	0	0	100	100	50	100	100	100		
<i>Citrobacter freundii</i>	7	1	0	0	0	100	100		0	0	0	0	100	86	86	100	100	100		

ALL GRAM-POSITIVE BACTERIA	172	100	70	70	86	17	17	17	17	17		33	67	15	88				94	97
<i>Enterococcus faecalis</i> , all isolates	119	69	100	100	100							22	88		97				98	98
- vancomycin-susceptible	117	68	100	100	100							22	89		99				100	100
- vancomycin-resistant (VRE)	2	1	100	100	100							0	0		0				0	
<i>Staphylococcus aureus</i> , all isolates	23	13			78	78	78	78	78	78		100		100	96				100	100
- methicillin-susceptible	18	10			100	100	100	100	100	100		100		100	100				100	100
- methicillin-resistant (MRSA)	5	3			0	0	0	0	0	0		100		100	80				100	100
<i>Staphylococcus saprophyticus</i>	14	8																		
<i>Enterococcus faecium</i> , all isolates	13	8	23	23	23							15	15		15				77	100
- vancomycin-susceptible	10	6	30	30	30							20	20		20				100	100
- vancomycin-resistant (VRE)	3	2	0	0	0							0	0		0				0	100
<i>Staphylococcus lugdunensis</i>	3	2			100	100	100	100	100	100		67		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.

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.

Toronto Western Hospital ANTIBIOGRAM
Emergency Department
January 1, 2024 - December 31, 2024

Blood Isolates — % Susceptible

≥80% Susceptible ■ 70-79% Susceptible ■ ≤69% 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
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ALL BACTERIA	840	—	18	28					63	70	68		56	63									83					
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ALL GRAM-NEGATIVE BACTERIA	222	100	27	65					73	100	93		49	72			76				66		79	94	90	99		
<i>Escherichia coli</i>	131	59	42	67					72	100	100		55	76			76				53		79	92	86	99		
<i>Klebsiella pneumoniae</i>	44	20	0	77					80	100	98		70	82			82				80		84	98	95	100		
<i>Proteus mirabilis</i>	17	8	31	100					100	100	100		33	100			100				88		81	94	94	100		
<i>Pseudomonas aeruginosa</i>	8	4							100	100							100				100			100	100	100		
<i>Enterobacter cloacae</i>	3	1	0	0					0	100	100		0	0			0				100		100	100	100	100		
<i>Citrobacter koseri</i>	3	1	0	0					0	100	100		0	0			0				100		100	100	100	100		
<i>Haemophilus influenzae</i> ^^	3	1	0																									
<i>Klebsiella aerogenes</i>	3	1	0	0					0	100	100		0	0			0				100		100	100	100	100		
<i>Moraxella catarrhalis</i> ^	3	1																										
<i>Serratia marcescens</i>	3	1	0	0					0	100	100		0	0			0				100		100	100	100	100		

ALL GRAM-POSITIVE BACTERIA	618	100	14	14	8			59	59	59	48	59	60					72	47				84					
Coagulase-negative staphylococci	456	74						54	54	54	54	54						72	42	88			87			100	100	
<i>Staphylococcus aureus</i> , all isolates	62	10						82	82	82	82	82						85	74	97			97			100	100	
- methicillin-susceptible	51	8						100	100	100	100	100						84	76	98			98			100	100	
- methicillin-resistant (MRSA)	11	2						0	0	0	0	0	0					91	64	91			91			100	100	
Group A streptococci**	23	4			100													78	79							100		
<i>Streptococcus pneumoniae</i>	21	3				0	0							95	100			100	79			100				100		
<i>Enterococcus faecalis</i>	18	3	100	100				100																			100	
Viridans group streptococci °	18	3			67								94														100	
Group B streptococci**	8	1			100													62	62							100		
<i>Streptococcus anginosus</i> group °	7	1			100								100														100	
Group G streptococci**	5	1			100													80	80							100		
<i>Staphylococcus lugdunensis</i>	5	1						80	80	80	80	80						80	80	80			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.

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:

- ^ *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.
- ** 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. 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.

Toronto Western Hospital ANTIBIOGRAM
Emergency Department
January 1, 2024 - December 31, 2024

Respiratory Isolates – % Susceptible

<div> <div>≥80% Susceptible</div> <div>70-79% Susceptible</div> <div>≤69% Susceptible</div> </div>		#	%	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
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ALL BACTERIA	20	—	25	30				85	95	35		30	55									38					
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ALL GRAM-NEGATIVE BACTERIA	13	100	23	31			85	100	8			38			85				75		25	87	88	75		
<i>Pseudomonas aeruginosa</i>	6	46					100	100							100				100			83	100	83		
<i>Haemophilus influenzae</i> ^^	4	31	75																							
<i>Escherichia coli</i>	1	8	0	0			0	100			0	0			0				0		100	100				
<i>Klebsiella aerogenes</i>	1	8	0	0			0	100	100		0	0			0				0		100	100	100	100		
<i>Moraxella catarrhalis</i> ^	1	8																								

ALL GRAM-POSITIVE BACTERIA	7	100	29	29				86	86	86	57	86	86				71	57				60				
<i>Staphylococcus aureus</i>	4	57						100	100	100	100	100					75	75	100			75			100	100
<i>Streptococcus pneumoniae</i>	2	29			100	100								100	100		100	50			100				100	
<i>Mycobacterium tuberculosis complex</i>	1	14																								

General Notes:

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- 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.

Toronto Western Hospital ANTIBIOGRAM
Intensive Care Units
January 1, 2024 - December 31, 2024

All Specimens – % Susceptible

<div> <div>≥80% Susceptible</div> <div>70-79% Susceptible</div> <div>≤69% Susceptible</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
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ALL BACTERIA	1637	—	23	53					76	84	77		41	19	66							44	75		71	75					
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ALL GRAM-NEGATIVE BACTERIA	1038	100	17	64				76	100	90		32		71			79				30	73		74	67	93	86	99			
Escherichia coli	624	60	24	72				78	100	100		36		82			82				50	64		75	96	91	79	99			
Klebsiella pneumoniae	144	14	0	88				89	100	95		63		92			92				0	86		91	29	99	98	100			
Pseudomonas aeruginosa	83	8						98	99								98					85					93	100	99		
Proteus mirabilis	64	6	30	97				98	100	100		28		98			98				0	83		79	2	95	89	100			
Enterobacter cloacae	24	2	0	0				0	100	100		0	0	0			0					96		96	38	96	100	100			
Klebsiella oxytoca	17	2	0	94				88	100	100		0		94			94					82		100	65	100	100	100			
Serratia marcescens	16	2	0	0				0	100	100		0	0	0			0					94		100	0	100	100	100			
Citrobacter koseri	16	2	0	0				0	100	100		0	0	0			0					100		100	75	100	100	100			
Klebsiella aerogenes	12	1	0	0				0	100	100		0	0	0			0					92		100	33	100	100	100			
Morganella morganii	11	1	0	0				0	100	100		0	0	0			0					82		91	0	100	100	100			
Citrobacter freundii	9	1	0	0				0	100	100		0	0	0			0					100		89	89	100	100	100			
Haemophilus influenzae^^	8	1	50																												
Providencia rettgeri	6	1	0	0				0	100	100		0	0	0			0					100		100	0	100	100	100			

ALL GRAM-POSITIVE BACTERIA	599	100	34	34	12			76	57	57	43	57	51	58				57	46	71	79		66	90					94		
Coagulase-negative staphylococci	527	88						56	56	56	56	56						66	40	87	100		86	100					100	100	
<i>Staphylococcus aureus</i> , all isolates	283	47						79	79	79	79	79	79					82	68	97	79		100	98					100	100	
- methicillin-susceptible	223	37						100	100	100	100	100	100					83	73	97	100		100	99					100	100	
- methicillin-resistant (MRSA)	60	10						0	0	0	0	0	0	0				77	48	95			100	92					100	100	
<i>Enterococcus faecalis</i>	126	21	100	100				100												22	91			100					100	100	
Group A streptococci**	28	5			100													82	76										100		
<i>Staphylococcus lugdunensis</i>	25	4						80	80	80	80	80	80					88	88	84			100	100					100	100	
<i>Streptococcus pneumoniae</i>	23	4				50	50								95	100		100	76	100		100							100		
Viridans group streptococci*	19	3			68										95															100	
<i>Enterococcus faecium</i> , all isolates	15	3	26	26				26												15	20			20					73	100	
- vancomycin-susceptible	11	2	36	36				36												20	27			27					100	100	
- vancomycin-resistant (VRE)	4	1	0	0				0												0	0			0					0	100	
<i>Staphylococcus saprophyticus</i> *	15	3																													
<i>Streptococcus anginosus</i> group**	13	2			92									100																100	
Group B streptococci**	10	2			100														67	67									100		
Group G streptococci**	7	1			100														83	83									100		

General Notes:

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- 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.
- ICUs include MSICU, NICU.

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
- All specimens exclude surveillance samples.

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.

" 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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** 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.