

Toronto General Hospital ANTIBIOGRAM
All Inpatients
January 1, 2016 - December 31, 2016

All Urine Isolates – % Susceptible

			% Susceptible																									
	#	%																										
			Ampicillin	Amoxicillin-Clavulanic acid	Penicillin	Piperacillin-Tazobactam	Meropenem	Ertapenem	Cloxacillin	Cefazolin	Cephalexin	Ceftriaxone	Ceftazidime	Doxycycline	Ciprofloxacin	Trimethoprim-Sulfamethoxazole	Nitrofurantoin	Gentamicin	Tobramycin	Amikacin	Vancomycin	Linezolid						
			<div>≥80% Susceptible</div>		<div>70-79% Susceptible</div>		<div>≤69% Susceptible</div>																					
ALL BACTERIA	851	—	37	62		73	69	62			28	46		11	73	45	71											
ALL GRAM-NEGATIVE BACTERIA	577	100	19	57		69	99	89			39	65	73		78	63	64	88	89	99								
<i>Escherichia coli</i>	316	55	30	65		74	100	99			36	78	78		66	64	96	85	84	99								
<i>Klebsiella pneumoniae</i>	110	19	0	83		81	99	98			77	85	85	0	93	72	25	90	91	99								
<i>Pseudomonas aeruginosa</i>	52	9				87	96						94		90			94	100	100								
<i>Enterobacter cloacae</i>	31	5	0	0		0	100	90			0	0	0		90	77	42	97	94	100								
<i>Klebsiella oxytoca</i>	18	3	0	72		72	100	100			61	78	78		94	83	89	94	94	100								
<i>Proteus mirabilis</i>	18	3	67	94		94	100	100			89	94	94		83	72	0	89	94	100								
<i>Morganella morganii</i>	8	1	0	0		0	100	100			0	0	0		100	88	0	88	100	100								
<i>Citrobacter freundii</i>	6	1	0	0		0	100	100			0	0	0		100	83	100	100	100	100								
<i>Serratia marcescens</i>	5	1	0	0		0	100	100			0	0	0		80	80	0	100	80	100								
ALL GRAM-POSITIVE BACTERIA	274	100	74	74		80	6	6	6	6	6	6		33	62	7	86				97	97						
<i>Enterococcus faecalis</i> , all isolates	196	72	99	99		99								26	82		98				100	100						
- vancomycin-susceptible	196	72	99	99		99								26	82		98				100	100						
- vancomycin-resistant (VRE)	0	0																										
<i>Enterococcus faecium</i> , all isolates	48	18	8	8		8								35	7		29				81	100						
- vancomycin-susceptible	39	14	10	10		10								41	8		26				100	100						
- vancomycin-resistant (VRE)	9	3	0	0		0								11	0		44				0	100						
- vancomycin-susceptible (vanA+)	0	0																										
<i>Staphylococcus aureus</i> , all isolates	20	7				80	80	80	80	80	80			95		100	100				100	100						
- methicillin-susceptible	16	6				100	100	100	100	100	100			100		100	100				100	100						
- methicillin-resistant (MRSA)	4	1				0	0	0	0	0	0			75		100	100				100	100						
<i>Enterococcus</i> species	7	3	86	86		86								29	86		86				100							
Coagulase-negative staphylococci	2	1				0	0	0	0	0	0			100		0	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:

- Susceptibility for cefazolin are not available for Gram-negative isolates from non-sterile site specimens for the current year.

Toronto General Hospital ANTIBIOGRAM
All Inpatients
January 1, 2016 - December 31, 2016

All Non-Urine Isolates – % Susceptible

<p> ≥80% Susceptible 70-79% Susceptible ≤69% Susceptible </p>	Amoxicillin-clavulanic acid	Penicillin	Penicillin IV (meningitis)	Penicillin IV (non-meningitis)	Piperacillin-Tazobactam	Meropenem	Ertapenem	Cloxacillin	Cefazolin	Ceftriaxone	Ceftriaxone (meningitis)	Ceftriaxone (non-meningitis)	Cefazidime	Clindamycin	Erythromycin	Doxycycline	Ciprofloxacin	Moxifloxacin	Trimethoprim-Sulfamethoxazole	Gentamicin	Tobramycin	Amikacin	Vancomycin	Linezolid
--	-----------------------------	------------	----------------------------	--------------------------------	-------------------------	-----------	-----------	-------------	-----------	-------------	--------------------------	------------------------------	------------	-------------	--------------	-------------	---------------	--------------	-------------------------------	------------	------------	----------	------------	-----------

ALL BACTERIA	2261	—	14	26				60	68	52		48							58					
---------------------	------	---	----	----	--	--	--	----	----	----	--	----	--	--	--	--	--	--	----	--	--	--	--	--

ALL GRAM-NEGATIVE BACTERIA	1003	100	13	39				63	96	59		46		63			77		57	90	90	95		
<i>Pseudomonas aeruginosa</i>	241	24						76	85					80			79			82	89	85		
<i>Escherichia coli</i>	223	22	28	62				70	100	99		76		76			61		60	88	83	99		
<i>Klebsiella pneumoniae</i>	129	13	0	83				83	99	98		85		85			94		78	97	94	99		
<i>Enterobacter cloacae</i>	99	10	0	0				0	99	91		0		0			90		81	94	94	100		
<i>Haemophilus influenzae</i> ^{^^}	77	8	74																					
<i>Stenotrophomonas maltophilia</i> [*]	49	5															78	100						
<i>Serratia marcescens</i>	48	5	0	0				0	100	100		0		0			100		98	100	94	100		
<i>Klebsiella oxytoca</i>	44	4	0	93				91	100	100		95		95			100		100	100	100	100		
<i>Enterobacter aerogenes</i>	21	2	0	0				0	100	100		0		0			95		100	100	100	100		
<i>Proteus mirabilis</i>	18	2	72	100				100	100	100		100		100			100		78	100	100	100		
<i>Moraxella catarrhalis</i> [^]	13	1																						
<i>Citrobacter freundii</i>	11	1	0	0				0	90	90		0		0			90		80	90	90	100		
<i>Morganella morganii</i>	10	1	0	0				0	100	100		0		0			67		67	100	78	100		
<i>Citrobacter koseri</i>	8	1	0	0				0	100	100		0		0			100		88	100	100	100		
<i>Acinetobacter baumannii</i> complex	6	1						80	83			0		50			83		67	83	83	67		
<i>Haemophilus parainfluenzae</i> ^{^^}	6	1	33																					

ALL GRAM-POSITIVE BACTERIA	1258	100	15	15	5			57	46	46	41	46	49			49	38			60				97	
Coagulase-negative staphylococci	549	44						35	35	35	35	35				53	34	91		60				100	100
<i>Staphylococcus aureus</i> , all isolates	369	29						89	89	89	89	89				73	66	95		98				100	100
- methicillin-susceptible	329	26						100	100	100	100	100				75	72	95		98				100	100
- methicillin-resistant (MRSA)	40	3						0	0	0	0	0	0			55	18	95		95				100	100
<i>Enterococcus faecium</i> , all isolates	123	10	15	15				15																80	
- vancomycin-susceptible	99	8	19	19				19																99	
- vancomycin-resistant (VRE)	24	2	0	0				0															0	100	
- vancomycin-susceptible (vanA+)	0	0																							
<i>Enterococcus faecalis</i> , all isolates	107	9	100	100				100																100	
- vancomycin-susceptible	107	9	100	100				100																100	
- vancomycin-resistant (VRE)	0	0																							
Viridans group streptococci*	64	5			59								94											97	
<i>Streptococcus pneumoniae</i>	25	2			55	100							100	100		88	60		96				100		
Group B streptococci**	12	1			100											58	67						100		
<i>Mycobacterium tuberculosis</i> complex	9	1																							

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:

- Susceptibility for cefazolin are not available for Gram-negative isolates from non-sterile site specimens for the current year.

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