Antimicrobial Susceptibility Report January 1, 2016 to December 31, 2016 Hamilton Niagara Haldimand Brant LTC (Excluding Hospitals)

Urinary Tract Pathogens - % Susceptible

Organism	Number of Isolates	Amox clavulanic	Ampicillin	Cefazolin (1)	Ceftazidime	Ceftriaxone	Ciprofloxacin	Gentamicin	Meropenem	Nitrofurantoin	Trimethoprim- Sulfamethoxazole
E. coli ^	2508	86	42	76		82	47	89	100	93	66
Enterococcus species ^^^^	770										
Klebsiella pneumoniae *	461	97		90		93	89	96	100	39	86
Proteus mirabilis +	457	97	72	93		98	65	97	100		64
Pseudomonas aeruginosa	152				91		73	76			
Group B Streptococcus ^^	137										

Organism Notes:

* Includes ESBL and AMPC isolates (6.3% of total Klebsiella pneumoniae isolates identified).

^ Includes ESBL and AMPC isolates (17.6% of total E.coli isolates identified). In Ontario, E.coli is found to be 99.5% susceptible to Fosfomycin.

^ This isolate is predictably susceptible to Penicillin.

Clindamycin, Trimethoprim/Sulfamethoxazole and all Cephalosporins are ineffective against Enterococcus species. Enterococcus isolates recovered from urine are generally susceptible to amoxicillin and nitrofurantoin.

+ Includes ESBL and AMPC isolates (0.4% of total Proteus mirabilis isolates identified).

Antibiotic Notes:

(1) Cefazolin interpretation predicts results for Cephalexin (Keflex) in accordance with CLSI standards for urinary sites only (not systemic).

All Other Sources (Excluding Surveillance) - % Susceptible

Organism	Number of Isolates	Cefazolin	Ceftazidime	Ciprofloxacin	Clindamycin	Cloxacillin	Erythromycin	Gentamicin	Tetracycline (2)	Trimethoprim- Sulfamethoxazole
Staphylococcus aureus ^^^	638	64			37	64	33		96	100
Pseudomonas aeruginosa	206		92	84				89		
Group B Streptococcus ^^	72									

Organism Notes:

^^ This isolate is predictably susceptible to Penicillin.

^ Includes Methicillin Resistant S.aureus (MRSA). MRSA is resistant to all B-Lactams (penicillins, cephalosporins, B-lactam/B-lactamase inhibitor combinations, and carbapenems). MRSA constitutes 35.9% of total Staphylococcus aureus isolates identified.

Antibiotic Notes:

(2) Organisms that are susceptible to Tetracycline are also considered susceptible to Doxycycline.

<u>General Notes:</u>

Antibiogram results, patient risk factors for resistant organisms, and resistance epidemiology should be considered together to help guide empiric treatment of initial infections. Treatment should be re-evaluated as additional information from culture and sensitivity become available.

Calculation of results based on first isolate per patient.

90-100% of isolates are susceptible to the antibiotic indicated (GOOD CHOICE) 21-89% of isolates are susceptible to the antibiotic indicated (INTERMEDIATE CHOICE) 0-20% of isolates are susceptible to the antibiotic indicated (POOR CHOICE) Value based on < 30 isolates. Statistical comparison on results with less than 30 isolates is unreliable. n = # of isolates tested. Antibiotic susceptibility testing is not typically performed on the organism.