Antimicrobial Susceptibility Report

January 1, 2017 to December 31, 2017

Hamilton Niagara Haldimand Brant Out Patient (Excluding Hospitals)

Urinary Tract Pathogens (in Order of Frequency) - % Susceptible

Organism	Number of Isolates	Amox clavulanic	Ampicillin	Cefazolin (1)	Ceftriaxone	Ciprofloxacin	Gentamicin	Meropenem	Nitrofurantoin	Trimethoprim-Sulfamethoxazole
E. coli ^	25849	91	60	88	94	84	92	100	97	79
Enterococcus species ^^^^	5398									
Klebsiella pneumoniae *	3693	96		93	97	96	98	100	37	89
Group B Streptococcus ^^	2364									
Proteus mirabilis +	1045	97	84	90	97	93	94	100		85
Staphylococcus saprophyticus ^^^	862									

Organism Notes:

* Includes ESBL and AMP-C isolates (3.1% of total Klebsiella pneumoniae isolates identified as ESBL and AMP-C).

^ Includes ESBL and AMP-C isolates (5.8% of total E.coli isolates identified as ESBL and AMP-C). In Ontario, E.coli is found to be 98.1% susceptible to Fosfomycin.

^^ This isolate is predictably susceptible to Penicillin.

^^^ Acute and uncomplicated urinary tract infections due to Staphylococcus saprophyticus will respond to commonly used antibiotics including Nitrofurantoin, Trimethoprim-Sulfamethaxazole and Fluoroquinolones.

^^^^ Clindamycin, Trimethoprim/Sulfamethoxazole and all Cephalosporins are ineffective against Enterococcus species. Enterococcus isolates recovered from urine are generally susceptible to amoxicillin and nitrofurantoin. Susceptibility to Amoxicillin is 97.1% and to Nitrofurantoin is 97.4%

+ Includes ESBL and AMP-C isolates (0.1% of total Proteus mirabilis isolates identified as ESBL and AMP-C).

Antibiotic Notes:

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

All Other Specimen Types excluding (Urines and Surveillance) - Organisms in Order of Frequency - % Susceptible

Organism	Number of Isolates	Cefazolin	Ceftazidime	Ciprofloxacin	Clindamycin	Cloxacillin	Erythromycin	Gentamicin	Tetracycline (2)	Trimethoprim-Sulfamethoxazole
Group A Streptococcus ^^	5692									
Staphylococcus aureus ^^^	4033	75			69	75	58		94	99
Pseudomonas aeruginosa	1304		91	78				92		
Group B Streptococcus ^^	377									

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 23.6% of total Staphylococcus aureus isolates identified.

Antibiotic Notes:

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

General Notes:

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.