


**YKHC Annual Antibigram**  
January 1, 2018 - December 31, 2018

		Total # of Isolates	Penicillins					Cephalosporins				Carbapenem	Fluoroquinolones		AMG	Miscellaneous				
			Penicillin	Oxacillin	Ampicillin	Amoxicillin/Clav	Piperacillin/Tazo	Cefazolin	Cefuroxime	Ceftriaxone	Ceftazidime	Meropenem	Ciprofloxacin	Levofloxacin	Gentamicin	Nitrofurantoin <sup>++</sup>	Tetracycline	Trimethoprim/Sulfa	Clindamycin <sup>^</sup>	Erythromycin
Gram Negative	<i>Escherichia coli</i> ESBL	35				89	100				100	37	37	89	97	34	40			
	<i>E. coli</i>	1057			47	86	99	91		96	100	85	85	89	99	76	73			
	<i>Enterobacter cloacae</i>	31					94			94	100	100	100	100	30	97	94			
	<i>Klebsiella aerogenes</i> *	40					93			93	100	100	100	98	45	98	100			
	<i>Klebsiella pneumoniae</i>	46				91	98	93		100	100	98	98	100	54	87	89			
	<i>Proteus mirabilis</i>	50			96	100	100	100		98	100	98	98	98			98			
<i>Pseudomonas aeruginosa</i> **	43					95			93	98	91	91	86							
Gram Positive	<i>Enterococcus faecalis</i>	40			100							100		100	40					100
	Coagulase Neg Staph sp.	207		44			44		44			94		99	93	81	77			100
	MRSA	192		R			R					54		100	99	100	93			100
	MSSA	304		100		100		100	100			96		100	100	100	97			100
	<i>Staph. aureus</i>	496		61			61		61			80		100	99	100	96			100
	<i>Streptococcus pneumoniae</i> <sup>+</sup>	37	95		95					86	97		100			97	76	97	84	100

**GENERAL NOTES:**

- Percent susceptible for each organism/antimicrobial combination was generated by including the first isolate of that organism recovered from a given patient per year.
- Statistical validity of estimates of percent susceptible is lowered when <30 isolates obtained:  
(\*) 2017 & 2018 data combined to increase # of isoates for reporting  
(\*\*) 2016, 2017 & 2018 data combined to increase # of isoates for reporting
- Enterobacteriaceae that are ESBL producers (resistant to 3rd gen. cephalosporins) are also resistant to most penicillins, cephalosporins, and aztreonam.
- Worldwide, there have never been penicillin resistant Beta-hemolytic Streptococcus, Group A (*Strep. pyogenes*) reported.
- Worldwide, there have never been vancomycin resistant *Streptococcus pneumoniae*, Viridans Streptococcus, or Beta-hemolytic Streptococci reported.
- Carbapenems & Pip/tazo have reliable coverage for *Bacteroides fragilis*; adding metronidazole is unnecessary.
- Organisms susceptible to tetracycline are also susceptible to doxycycline.
- Vancomycin MIC confirmation by e-test is routinely performed on bloodstream MRSA isolates.

**MDRO NOTES SPECIFIC FOR THIS PERIOD:**

- 35 (3.3% of *E.coli*) were ESBLs (Extended spectrum beta-lactamase producing). Macrobid is reliable for ESBL cystitis.  
(Susceptible: 37% FQs; 40% TMP/SMX; 100% Macrobid) CARBAPENEMS are preferred for most severe ESBL infections.
- 39% of *Staphylococcus aureus* were MRSA.

**KEY/DEFINITIONS:**

- (Gray Cell): Antibiotic is not tested, known to be clinically ineffective, and/or suppressed per CLSI limitations.  
 MRSA: Methicillin resistant *Staph aureus*  
 MSSA: Methicillin sensitive *Staph aureus*  
 AMG: Aminoglycoside  
 (+): *S. pneumoniae* susceptibility using meningitis PCN & Cephalosporin breakpoints  
 (++) : Nitrofurantoin should be used only for cystitis in afebrile patients with CrCl > 30.  
 (^): Isolates with inducible clindamycin resistance (+ D test) are considered resistant.

**FOR INQUIRIES REGARDING ANTI BIOGRAM INTERPRETATION OR EMPIRIC TREATMENT RECOMMENDATIONS, CONTACT ONE OF THE FOLLOWING NUMBERS:**  
 Microbiology Department 543-6233