YKHC Annual Antibiogram

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++	Tetracycline	Trimethoprim/Sulfa	Clindamycin^	Erythromycin	Vancomycin
Gram Negative	*Escherichia coli ESBL*	35				89	100					100	37	37	89	97	34	40			
	E. coli	1057			47	86	99	91		96		100	85	85	89	99	76	73			
	Enterobacter cloacae	31					94			94		100	100	100	100	30	97	94			
	*Klebsiella aerogenes**	40					93			93		100	100	100	98	45	98	100			
	Klebsiella pneumoniae	46				91	98	93		100		100	98	98	100	54	87	89			
	Proteus mirabilis	50			96	100	100	100		98		100	98	98	98			98			
	*Pseudomonas aeruginosa***	43					95				93	98	91	91	86						
Gram Positive	*Enterococcus faecalis*	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
	Staph. aureus	496		61				61		61				80		100	99	100	96		100
	Streptococcus pneumoniae+	37	95		95				86	97				100			97	76	97	84	100

GENERAL NOTES:

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

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.

MDRO NOTES SPECIFIC FOR THIS PERIOD:

a. 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 preferrred for most severe ESBL infections.
b. 39% of *Staphylococcus aureus* were MRSA.