


YKHC Annual Antibigram
January 1, 2023 - December 31, 2023

		Total # of Isolates	Penicillins					Cephalosporins				Carbapenem	Fluoroquinolones		Miscellaneous								
			Penicillin	Oxacillin	Ampicillin	Ampicillin/Sul	Amoxicillin/Clav	Piperacillin/Tazo	Cefazolin	Ceftriaxone	Ceftazidime	Cefepime	Meropenem	Ciprofloxacin	Levofloxacin	Gentamicin	Nitrofurantoin ⁺⁺	Tetracycline	Trimethoprim/Sulfa	Clindamycin [^]	Erythromycin	Vancomycin	Linezolid
Gram Negative	<i>E. coli</i>	1007			49	57	86	98	90	95	95	95	100	88	88	91	98	81	80				
	<i>E. coli</i> (ESBL isolates)	49		R		43	86	R	R	R		96	31	29	53	98	88	61					
	<i>Enterobacter cloacae</i> *	47					98		89	92	100	100	100	100	100	25	98	98					
	<i>Klebsiella aerogenes</i> **	43					100		91	92	100	100	100	100	100	35	98	100					
	<i>Klebsiella oxytoca</i>	23 ^b				83	96	100	65	96	96	96	100	91	91	100	92	96	87				
	<i>Klebsiella pneumoniae</i>	70				90	99	100	97	100	100	100	100	99	100	100	64	90	97				
	<i>Proteus mirabilis</i>	51			92	100	100	98	92	92	88	92	100	100	100			100					
	<i>Pseudomonas aeruginosa</i> **	36						94			81	81	97	89	92	R							
Gram Positive	<i>Enterococcus faecalis</i>	31			100	100							84	90		97	45					100	100
	Coagulase Neg Staph sp.	168		42				42	42				90	92		96	85	89	69			96	97
	MRSA	167		R				R								100	96	99	88			97	99
	MSSA	318		100				100	100				96	96		100	99	100	96			100	100
	<i>Staph. aureus</i>	485		66				66	66				78	79		100	98	99	93			99	100
	<i>Streptococcus pneumoniae</i> ⁺	50	94		94	100	100			98					96			94	69	100	94		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:
(*) 2022 & 2023 data combined to increase # of isolates for reporting
(**) 2021, 2022 & 2023 data combined to increase # of isolates for reporting
- Enterobacteriales that are ESBL producers (resistant to 3rd gen. cephalosporins) are also resistant to most penicillins, cephalosporins, and aztreonam.
- Beta-hemolytic Streptococcus, Group A (*Strep. pyogenes*) are generally considered beta-lactam susceptible.
- Vancomycin resistant *Streptococcus pneumoniae*, Viridans Streptococcus, or Beta-hemolytic Streptococci are extremely rare.
- Carbapenems & Pip/tazo have reliable coverage for *B. fragilis*; adding metronidazole is unnecessary.
- Organisms susceptible to tetracycline are also susceptible to doxycycline.
- Erythromycin is surrogate marker for Azithromycin for *Streptococcus pneumoniae*.

MDRO NOTES SPECIFIC FOR THIS PERIOD:

- 49 (4.9% of *E.coli*) were ESBLs (Extended spectrum beta-lactamase producing).
(Susceptible: 31% Ciprofloxacin; 61% TMP/SMX; 98% Nitrofurantoin)
Nitrofurantoin is reliable for ESBL cystitis. CARBAPENEMS are preferred for most severe ESBL infections.
- 34% 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* Penicillin/Ceftriaxone susceptibility utilizing CNS breakpoints
- (++): Nitrofurantoin should be used only for cystitis in afebrile patients with CrCl > 30.
- (^): Isolates with inducible clindamycin resistance (+ D test) are considered resistant.