

Print Name: _____ **Department:** _____ **Date:** _____

Annual Cumulative Antibiogram and Its Limitations	Initial
<p>Cumulative Antibiogram Defined: A cumulative antibiogram is a collection of data usually in the form of a table summarizing the percent of individual bacterial pathogens susceptible to different antimicrobial agents. This is a profile generated by the laboratory using aggregate data from the hospital that is summarized periodically (usually annually). Only results for antimicrobial drugs that are routinely tested and clinically useful are presented.</p>	
<p>Cumulative Antibiogram as a Guide: Antibiograms help guide the clinician and pharmacist in selecting the best empiric antimicrobial treatment in the event of pending microbiology culture and susceptibility results. They are also useful tools for detecting and monitoring trends in antimicrobial resistance. GMHA’s antimicrobial susceptibility testing data are summarized cumulatively on an annual basis so that trends in resistance can be identified and investigated.</p>	
<p>Cumulative Antibiogram Limitations: While the antibiogram is useful it should not be relied upon as the sole tool for guiding therapy. Limitations of the antibiogram are as follows:</p> <ul style="list-style-type: none"> • Minimum inhibitory concentrations (MICs) are not included; as a result subtle trends below the resistance threshold (known as “MIC creep”) are not reflected. • Data do not take into account patient factors such as history of infection or past antimicrobial use. Resistance patterns for certain drugs vary significantly by age, and a patient’s underlying medical condition may affect how well an antimicrobial works. • Data for isolates with less than 30 samples may not be statistically valid. • Data are the result of single organism-antimicrobial combinations, therefore they do not show trends in cross-resistance of an organism to other drugs, nor do they reveal synergistic properties of antimicrobials used in combination. • Data cannot be generalized to specific patient populations or locations of our hospital since it is compiled using hospital-wide data. <p>Please be reminded that antibiotic selection should not be based solely on the cumulative antibiogram. Clinical history, the potential for adverse reactions or inherent drug toxicity, and potential for conversion to resistance must be considered on an individual patient basis.</p>	
<p>Please initial here thus acknowledging receipt of the CY2017 GMHA Cumulative Antibiogram.</p>	

Participant Physician’s Signature

Date

Provided by: Racquel Sperrazzo, PharmD

Date

GUAM MEMORIAL HOSPITAL ANTIBIOGRAM
GRAM NEGATIVE ISOLATES
PERIOD: JANUARY 1, 2017 TO DEC. 31, 2017

ORGANISM	ISOL	AM	AMS	CEP	CIP	CTR	CZ	ERT	FD	GM	MER	NN	PIP	SXT	TAZ
Acinetobacter baumannii	180	0	30	26	27	4	0	NT	0	48	29	52	23	37	25
Citrobacter freundii	16	NT	NT	88	88	63	0	94	100	88	94	82	50	88	63
Citrobacter koseri	33	NT	NT	100	100	100	100	100	100	100	100	100	0	97	100
Enterobacter aerogenes	25	NT	NT	84	88	76	0	88	20	88	88	88	72	96	76
Enterobacter cloacae	78	NT	NT	94	90	81	0	94	42	95	99	91	79	92	81
E. coli	626	34	45	81	62	79	74	100	96	84	100	84	36	60	80
Klebsiella pneumoniae	283	0	75	85	84	84	81	100	37	94	100	88	60	82	85
Proteus mirabilis	126	82	88	90	95	89	87	98	0	94	98	94	83	88	90
Pseudomonas aeruginosa	228	NT	NT	82	90	90	NT	NT	NT	96	84	100	71	NT	81
Salmonella species	9	100	NT	NT	100	100	NT	NT	NT	NT	NT	100	NT	100	NT
Serratia marcescens	28	NT	NT	100	100	100	0	100	0	100	100	86	100	100	100
Shigella flexneri	8	13	NT	NT	100	100	NT	NT	NT	NT	NT	NT	NT	88	NT
Vibrio parahaemolyticus	1	0	100	100	100	100	0	NT	NT	100	NT	100	100	100	NT

ABOVE ARE EXPRESSED AS % SUSCEPTIBLE

LEGEND:

AM	AMPICILLIN
AMS	AMPICILLIN/SULBACTAM
CC	CLINDAMYCIN
CIP	CIPROFLOXACIN
CTR	CERTRIAXONE
CZ	CEFAZOLIN
ERT	ERTAPENEM
ERY	ERYTHROMYCIN
FD	NITROFURANTOIN
ISOL	NUMBER OF ISOLATES
MER	MEROPENEM
NT	NOT TESTED
OX	OXAICILLIN
PEN	PENICILLIN
RIF	RIFAMPIN
SXT	TRIMETHOPRIM/SULFAMETHOXAZOLE
TE	TETRACYCLINE
VA	VANCOMYCIN

PLEASE NOTE:

ANTIBIOTIC SELECTION SHOULD NOT BE BASED SOLELY ON THIS ANTIBIOGRAM

ADDITIONAL FACTORS THAT SHOULD BE CONSIDERED ARE:

- CLINICAL HISTORY
- TOXIC REACTIONS
- POTENTIAL FOR CONVERSION TO RESISTANCE

SUBMITTED AND APPROVED BY:

[Signature]

MICROBIOLOGY SUPERVISOR

2/22/19

DATE

[Signature]

2/24/2018

LABORATORY MEDICAL DIRECTOR

DATE

GM GENTAMYCIN
NV TOBRAMYCIN

GUAM MEMORIAL HOSPITAL ANTI-BIOGRAM
GRAM POSITIVE ISOLATES

PERIOD: JANUARY 1, 2017 - DECEMBER 31, 2017

ORGANISM	ISOL	AM	AMS	CC	CIP	CZ	ERY	FD	GM	LNZ	OX	PEN	RIF	SXT	TET	VA
<i>Staphylococcus aureus</i>	368	NT	NT	85	90	100	79	100	100	100	100	24	100	98	99	100
MRSA*	344	NT	NT	66	23	0	29	95	97	98	0	0	100	93	99	100
<i>Staphylococcus epidermidis</i>	38	NT	NT	53	74	28	26	97	95	100	28	8	95	66	74	100
<i>Staphylococcus saprophyticus</i>	7	NT	NT	75	100	75	63	100	100	100	75	0	100	75	100	100

Methicillin Resistant Staphylococcus aureus

ORGANISM	ISOL	AMP	CTR	ERY	PEN	TET	VA
<i>Streptococcus pneumoniae</i>	23	100	100	87	100	91	100

ORGANISM	ISOL	AMP	CIP	FD	PEN	TET	VAN	LNZ
<i>Enterococcus faecalis</i>	139	93	84	97	93	20	100	96
VRB*	16	0	0	75	0	19	0	100

Vancomycin Resistant Enterococcus

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- POTENTIAL FOR CONVERSION TO RESISTANCE

SUBMITTED AND APPROVED BY:

MICROBIOLOGY SUPERVISOR

LABORATORY MEDICAL DIRECTOR

J. A. Beutzel
DATE 2/20/18

[Signature]
DATE 2/20/2018

LEGEND:

AM	AMPICILLIN
AMS	AMPICILLIN/SULBACTAM
CC	CLINDAMYCIN
CIP	CIPROFLOXACIN
CTR	CEFTRIAXONE
CZ	CEFAZOLIN
ERT	ERTAPENEM
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AM GENITAMYCIN
AN TBBA MYCIN