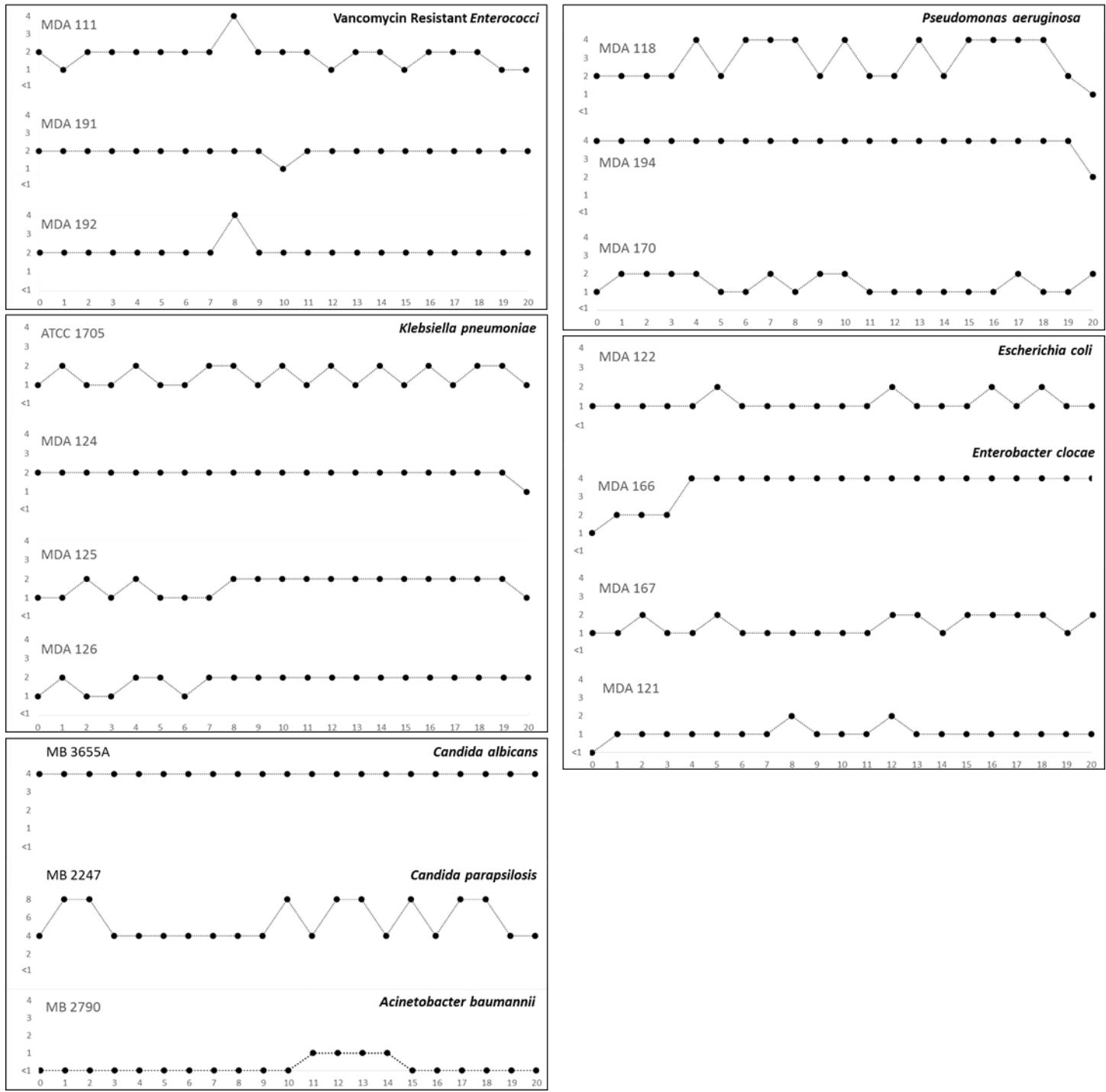


1 SUPPLEMENTAL MATERIAL -



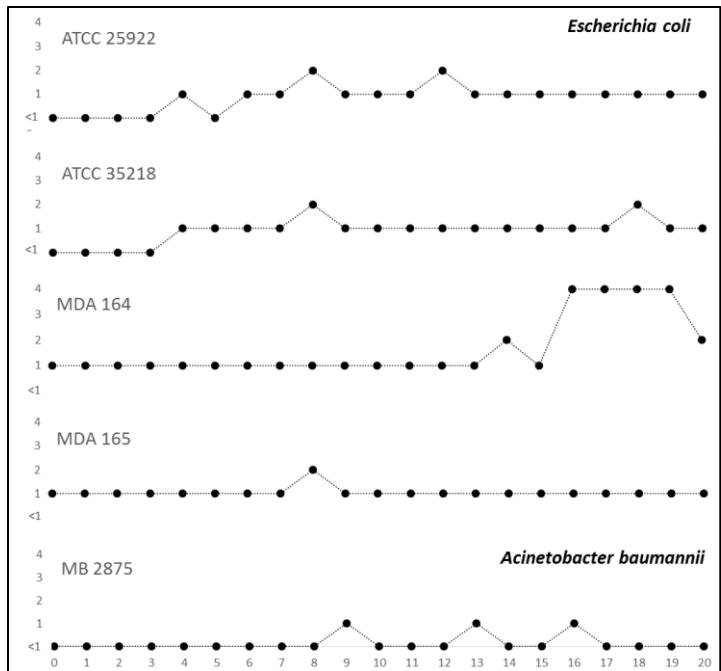
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3 **Supplemental Material Figure S1 – Median MIC for MIN, RIF, and CHX in each sub-inhibitory passage for low**  
 4 **susceptibility organisms** - The median measured MIC values for MIN, RIF, and CHX in each passage are the circles in  
 5 each plot. Dotted lines have been added to assist in visualizing the trend in MIC values. A vertical MIC trend (continually  
 6 increasing MIC trending toward antimicrobial agent ineffectiveness) would be indicative of induced resistance for a  
 7 particular organism. Conversely, a horizontal MIC trend would be indicative of the absence of induced resistance for a

8 particular organism. Low susceptibility organisms tested included the following susceptibility patterns: vancomycin  
9 resistant *enterococci* (VRE MDA 111, 191, 192); carbapenem resistant *enterobactericeae* including *Klebsiella pneumoniae*  
10 (ATCC 1705, MDA 124, 125, 126), *Escherichia coli* (MDA 122), *Enterobacter cloacae* (MDA 166, 167, 121); Multi-drug  
11 resistant *Pseudomonas aeruginosa* (MDA 118, 194, 170); Other organisms *Acinetobacter baumannii* (MB2790), *Candida*  
12 *albicans* (MB3655A), and *Candida parapsilosis* (MB 2247). The x- axis for each plot is the passage number and y-axis is  
13 measured median MIC ( $\mu\text{g/mL}$ ).

14

15



18 **Supplemental Material Figure S2 – Median MIC for MIN, RIF, and CHX in each sub-inhibitory passage for high**  
 19 **susceptibility organisms** - The median measured MIC values for MIN, RIF, and CHX in each passage are the circles in each  
 20 plot. Dotted lines have been added to assist in visualizing the trend in MIC values. A vertical MIC trend (continually  
 21 increasing MIC trending toward antimicrobial agent ineffectiveness) would be indicative of induced resistance for a  
 22 particular organism. Conversely, a horizontal MIC trend would be indicative of the absence of induced resistance for a  
 23 particular organism. High susceptibility organisms tested included the following: *Escherichia coli* (ATCC 25922, 35218,  
 24 MDA 164, 165) and *Acinetobacter baumannii* (MB 2875). *Staphylococcus aureus* isolates (ATCC 25923 and 43300) and  
 25 *Acinetobacter baumannii* (MB2767) were highly susceptible to the point that their baseline MIC was less than the lower  
 26 limit of testing, thus no sub-inhibitory concentrations could be achieved. The x- axis for each plot is the passage number  
 27 and y-axis is measured median MIC (μg/mL).

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30 **Table S1 - Susceptibility of Test Organisms**

31 Organisms were tested for susceptibilities of commonly used antibiotics as reported by University of Texas MD Anderson Clinical Microbiological Laboratory. All  
32 definitions are per CLSI guidelines for susceptibility testing (1, 2). All testing is conducted by the CLIA certified UT MDACC Clinical Microbiology Laboratory using  
33 a Biomerieux Vitek II system or using E-test strips for determining antibiotic profiles for each organism. Determination of which antibiotics were tested for which  
34 organism was determined by standard operating procedures in the clinical microbiology laboratory, some antibiotics are not available of appropriate to be  
35 tested for specific organisms.

36 Abbreviations and definitions are as follows: R – Resistant to antimicrobial base on interpretation of MIC/Etest; I – Intermediate to antimicrobial based on  
37 interpretation of MIC/Etest; S – Sensitive to antimicrobial based on interpretation of MIC/Etest; MRSA – methicillin resistant Staphylococcus aureus; VRE –  
38 vancomycin resistant enterococci; ECS – Extended Spectrum cephalosporin, resistant to at least one of the extended spectrum cephalosporin (cefepime,  
39 cefotazime, ceftazidime, ceftriaxone); CRE – carbapenem resistant enterobacterieae, resistant to at least one carbapenem (ertapenem, imipenem,  
40 meropenem, doripenem); MDR – multidrug resistant, must be intermediate or resistant to at least 1 drug in 3 of the 6 classes (extended spectrum  
41 cephalosporin, fluoroquinolones, aminoglycosides, CRE, pipracillin/tazobactam, ampicillin/sulbactam).

42

<b>Enterococcus</b>					<b>Klebsiella pneumoniae</b>			
ID	MDA 111	MDA 191	MDA 192	ID	MDA 124	MDA 125	MDA 126	
Species	E. faecium	E. faecium	E. facium	Species	K. pneumoniae	K. pneumoniae	K. pneumoniae	
Year	2015	2017	2017	Year	2014	2014	2013	
Source	Blood	Blood	Blood	Source	Blood	Blood	Blood	
Category	VRE	VRE	VRE	Category	ESC, CRE, MDR	ESC, CRE, MDR	ESC, CRE, MDR	
Beta lactamase	negative	n/a	n/a	Amikacin	R	I	S	
Ampicillin	R	S	R	Amoxicillin/Clavulanate				
Daptomycin	S	S	S	Ampicillin	R	R	R	
Gentamicin 500	R	n/a	n/a	Amp/Sulbactam	R	R	R	
Levofloxacin	R	n/a	n/a	Aztreonam	R	R	R	
Linezolid	S	I	S	Cefepime	I	R	R	
Nitrofurantoin	I	n/a	n/a	Cefotaxime	R	R	R	
Streptomycin	R	n/a	n/a	Cefpodoxime	R	R	R	
Tetracycline	R	R	R	Ceftazidime	n/a	n/a	n/a	
Vancomycin	R	R	R	Ceftazidime/Avibactam	n/a	n/a	n/a	
Quinupristin/Dalfopristin	n/a	R	I	Ceftriaxone	R	R	R	
				Cephalothin	R	R	R	
				Ciprofloxacin	R	R	R	
				Colistin-E	NO INTERP	NO INTERP	NO INTERP	
				Ertapenem	n/a	R	R	
				Gentamicin	S	R	R	
				Imipenem	R	R	R	
				Levofloxacin	R	R	R	
				Meropenem	R	R	R	
				Moxifloxacin	R	R	R	
				Nitrofurantoin	R	R	R	
				Pip/Tazo	R	R	R	
				Tigecycline	S	I	I	
				Tobramycin	R	R	S	
				Sulfa/Trimeth	R	R	R	
				Carbapenamase	POSITIVE	POSITIVE	POSITIVE	

<b>Escherichia coli</b>					<b>Enterobacter spp.</b>			
ID	MDA 122	MDA 164	MDA 165	ID	MDA 121	MDA 166	MDA 167	
Species	E. coli	E. coli	E. coli	Species	Eb. Clocae	Eb. Clocae	Eb. Clocae	
Year	2015	2011	2011	Year	2015	2009	2011	
Source	Blood	Blood	Blood	Source	Blood	Blood	Blood	
Category	ESC, CRE, MDR	ESC, CRE, MDR	ESC, CRE, MDR	Category	ESC	ESC, MDR	ESC	
Amikacin	R	S	I	Amikacin	S	S	n/a	
Ampicillin	R	R	R	Ampicillin	n/a	R	n/a	
Amp/Sulbactam	R	R	R	Amp/Sulbactam	n/a	R	n/a	
Aztreonam	R	R	S	Aztreonam	R	I	R	
Cefepime	I	R	R	Cefepime	S	S	S	
Cefotaxime	R	R	S	Cefotaxime	R	R	R	
Cefpodoxime	R	n/a	n/a	Cefpodoxime	R	n/a	n/a	
Ceftazidime	R	R	I	Ceftazidime	R	R	R	
Ceftriaxone	R	R	R	Ceftriaxone	R	R	R	
Cephalothin	R	n/a	n/a	Cephalothin	R	n/a	n/a	
Ciprofloxacin	R	R	n/a	Ciprofloxacin	S	S	S	
Ertapenem	R	n/a	R	Ertapenem	I	n/a	NO INTERP	
Gentamicin	R	S	S	Gentamicin	S	S	S	
Imipenem	R	R	NO INTERP	Imipenem	S	No INTERP	NO INTERP	
Levofloxacin	R	R	R	Levofloxacin	S	S	S	
Meropenem	R	R	NO INTERP	Meropenem	S	No INTERP	NO INTERP	
Moxifloxacin	R	R	n/a	Moxifloxacin	S	n/a	S	
Nitrofurantoin	n/a	S	S	Nitrofurantoin	I	S	S	
Pip/Tazo	R	R	R	Pip/Tazo	n/a	R	R	
Tigecycline	I	S	S	Tigecycline	S	S	n/a	
Tobramycin	R	S	R	Tobramycin	S	S	S	
Sulfa/Trimeth	R	R	R	Sulfa/Trimeth	S	S	S	
Carbapenamase	POSITIVE	POSITIVE	n/a	Carbapenamase	POSITIVE	n/a	POSITIVE	

<b>Pseudomonas aeruginosa</b>				<b>Acinetobacter spp</b>			
ID	MDA 118	MDA 170	MDA 194	ID	MB2875	MB2790	MB2761
Species	Ps. aeruginosa	Ps. aeruginosa	Ps. aeruginosa	Species	An. Ursingii	An. Baumanii	An baumannii
Year	2003	2016	2017	Year	2016	2016	2016
Source	Catheter site	Blood	Blood	Source	Blood	Blood	Blood
Category	MDR	MDR	MDR	Category	Suseptible	Suseptible	Suseptible
Amikacin	S	I	I	Amikacin	S	S	S
Aztreonam	R	R	R	Cefepime	S	S	S
Cefepime	I	R	I	Ciprofloxacin	S	S	S
Ceftazidime	I	R	S	Colistin	n/a	n/a	S
Ceftizoxime	R	n/a	n/a	Imipenem	S	S	S
Ceftriaxone	R	n/a	n/a	Meropenem	n/a	n/a	S
Ciprofloxacin	R	R	R	Minocycline	n/a	n/a	S
Gentamicin	S	n/a	n/a	Pip/Tazo	S	S	n/a
Imipenem	R	R	R	Tobramycin	S	S	S
Levofloxacin	R	n/a	n/a	Trimethoprim/Sulfa	S	S	S
Meropenem	R	R	R				
Norfloxacin	R	n/a	n/a				
Piperacillin	S	n/a	n/a				
Pip/Tazo	S	n/a	R				
Ticar/Clav	R	n/a	n/a				
Tobramycin	S	S	R				
Ceftazidime/Avibactam	n/a	S	n/a				
Ceftolozane/Tazobactam	n/a	R	S				

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