**Table 1: Datasets Overview** 

ANTIBIOTIC CLASSIFICATION		Study Number	1	2	3	4	5	6	7	8
		References	Yamaji et al. 2018	Yamaji et al. 2018	Adams-Sapper et al. 2013	Kallonen et al. 2017	Kallonen et al. 2017	Wurster et al. 2018	Manara et al. 2018	Galloway-Peña et al. 2009
		Dataset Names	Yamaji_1999	Yamaji_2016	Addams- Sapper	Kallonen_BSAC	Kallonen_CUH	Wurster	Manara	Galloway
		Pathogen	E. coli	E. coli	E. coli	E. coli	E. coli	S. aureus	S. aureus	E. faecium
		Isolates Numbers	225	233	246	1094	415	262	184	53
		PMID	29436416	29436416	23147723	28720578	28720578	30521630	30424799	19821720
BETA- LACTAMS		Amoxicillin				×				•
	PENICILLIN	Ampicillin	×	×			×			×
		Oxacillin						×	X	
		Penicillin						×	×	
	1st	Cefalotin					×			
		Cephalosporins-BS			×					
		Cefoxitin					×			
	CEPHALOSPORINS 2nd	Cefuroxime				×	×			
	CEPHALOSPORINS	Cefuroxime axetil					×			
		Cefotaxime				×	×			
	3rd	Ceftazidime				×	×			
	4th	Cefepime			×		×			
	MONOBACTAMS	Aztreonam			×		×			
	CARBAPENEMS	Carbapenem			×		•			
		Ertapenem			^		×			
		Imipenem				×	^			
		Meropenem				^	×			
DNA TOPOISOMERASES	QUINOLONES	·	×	×		×	×			
		Ciprofloxacin		Х		X	X			
		Fluoroquinolones			×				•	
		Levofloxacin						×	×	
PROTEIN SYNTHESIS	AMINOGLYCOSIDES	Amikacin					X			
		Gentamicin				×	×	×	×	×
		Streptomycin								×
		Tobramycin					×			
	OXAZOLIDINONES	Linezolid						×	×	
	LINCOSAMIDES	Clindamycin						×	×	
	MACROLIDES	Erythromycin						×		
	TETRACYCLINES 1st 3rd							×	×	
						×	×		×	
COMBINATION	PENICILLIN COMBINATIONS	Amoxicillin-Clavulanic acid				×	×			
		Piperacillin-Tazobactam				×	×			
	SULFONAMIDES COMBINATIONS	Trimethoprim-Sulfamethoxazole	×	×	×		×	×	×	
OTHERS	LIPOPEPTIDES	Daptomycin							×	
	FUSIDANE	Fusidic acid							×	
	RIFAMYCINS	Rifampicin							×	
	DIAMINOPYRIMIDINES	Trimethoprim								
	GLYCOPEPTIDE	Teicoplanin							×	
		Vancomycin						×	×	×
		variouriyoni							_ ~	