

S1 Table. Summary of bacterial species and antibiotic drugs combinations in association and prediction models. The resistant and susceptible isolates were counted based on the cutoff MIC (minimal inhibitory concentration) values reported in the 2018 CLSI guidelines.

Species	Antibiotics	Resistant Isolates	Susceptible Isolates	Total Isolates	Percentage of Resistant Isolates
<i>Acinetobacter baumannii</i>	amikacin	45	420	465	9.7%
<i>Acinetobacter baumannii</i>	ampicillin-sulbactam	307	389	696	44.1%
<i>Acinetobacter baumannii</i>	cefotaxime	53	25	78	67.9%
<i>Acinetobacter baumannii</i>	ciprofloxacin	269	98	367	73.3%
<i>Acinetobacter baumannii</i>	doripenem	51	153	204	25.0%
<i>Acinetobacter baumannii</i>	levofloxacin	171	151	322	53.1%
<i>Acinetobacter baumannii</i>	meropenem	170	136	306	55.6%
<i>Acinetobacter baumannii</i>	tetracycline	60	201	261	23.0%
<i>Acinetobacter baumannii</i>	tobramycin	100	343	443	22.6%
<i>Enterobacter cloacae</i>	cefepime	37	19	56	66.1%
<i>Enterobacter cloacae</i>	ciprofloxacin	40	35	75	53.3%
<i>Enterobacter cloacae</i>	doripenem	21	23	44	47.7%
<i>Enterobacter cloacae</i>	ertapenem	39	20	59	66.1%
<i>Enterobacter cloacae</i>	gentamicin	13	61	74	17.6%
<i>Enterobacter cloacae</i>	imipenem	28	26	54	51.9%
<i>Enterobacter cloacae</i>	levofloxacin	34	34	68	50.0%
<i>Enterobacter cloacae</i>	meropenem	31	36	67	46.3%
<i>Enterobacter cloacae</i>	tetracycline	19	36	55	34.5%
<i>Enterobacter cloacae</i>	tobramycin	26	40	66	39.4%
<i>Enterobacter cloacae</i>	trimethoprim-sulfamethoxazole	38	33	71	53.5%
<i>Escherichia coli</i>	amikacin	17	252	269	6.3%
<i>Escherichia coli</i>	amoxicillin-clavulanic acid	135	128	263	51.3%
<i>Escherichia coli</i>	ampicillin	320	28	348	92.0%
<i>Escherichia coli</i>	aztreonam	122	29	151	80.8%

<i>Escherichia coli</i>	cefazolin	110	13	123	89.4%
<i>Escherichia coli</i>	cefepime	107	108	215	49.8%
<i>Escherichia coli</i>	cefoxitin	90	139	229	39.3%
<i>Escherichia coli</i>	ceftazidime	152	59	211	72.0%
<i>Escherichia coli</i>	ceftiofur	23	53	76	30.3%
<i>Escherichia coli</i>	ceftriaxone	267	78	345	77.4%
<i>Escherichia coli</i>	chloramphenicol	55	21	76	72.4%
<i>Escherichia coli</i>	ciprofloxacin	216	131	347	62.2%
<i>Escherichia coli</i>	doripenem	24	64	88	27.3%
<i>Escherichia coli</i>	ertapenem	55	202	257	21.4%
<i>Escherichia coli</i>	gentamicin	100	240	340	29.4%
<i>Escherichia coli</i>	imipenem	32	111	143	22.4%
<i>Escherichia coli</i>	kanamycin	10	65	75	13.3%
<i>Escherichia coli</i>	levofloxacin	206	60	266	77.4%
<i>Escherichia coli</i>	meropenem	38	228	266	14.3%
<i>Escherichia coli</i>	piperacillin-tazobactam	66	174	240	27.5%
<i>Escherichia coli</i>	tetracycline	209	102	311	67.2%
<i>Escherichia coli</i>	tobramycin	76	117	193	39.4%
<i>Escherichia coli</i>	trimethoprim-sulfamethoxazole	187	161	348	53.7%
<i>Klebsiella aerogenes</i>	cefepime	7	44	51	13.7%
<i>Klebsiella aerogenes</i>	ceftazidime	55	9	64	85.9%
<i>Klebsiella aerogenes</i>	tobramycin	3	55	58	5.2%
<i>Klebsiella aerogenes</i>	trimethoprim-sulfamethoxazole	6	54	60	10.0%
<i>Klebsiella pneumoniae</i>	amikacin	61	204	265	23.0%
<i>Klebsiella pneumoniae</i>	cefepime	249	34	283	88.0%
<i>Klebsiella pneumoniae</i>	cefotaxime	286	8	294	97.3%
<i>Klebsiella pneumoniae</i>	cefoxitin	160	38	198	80.8%
<i>Klebsiella pneumoniae</i>	ceftazidime	298	15	313	95.2%
<i>Klebsiella pneumoniae</i>	ciprofloxacin	243	36	279	87.1%

<i>Klebsiella pneumoniae</i>	doripenem	174	26	200	87.0%
<i>Klebsiella pneumoniae</i>	ertapenem	274	44	318	86.2%
<i>Klebsiella pneumoniae</i>	gentamicin	129	166	295	43.7%
<i>Klebsiella pneumoniae</i>	imipenem	247	33	280	88.2%
<i>Klebsiella pneumoniae</i>	levofloxacin	271	37	308	88.0%
<i>Klebsiella pneumoniae</i>	meropenem	261	48	309	84.5%
<i>Klebsiella pneumoniae</i>	piperacillin-tazobactam	202	19	221	91.4%
<i>Klebsiella pneumoniae</i>	tetracycline	117	103	220	53.2%
<i>Klebsiella pneumoniae</i>	tobramycin	201	47	248	81.0%
<i>Klebsiella pneumoniae</i>	trimethoprim-sulfamethoxazole	254	67	321	79.1%
<i>Pseudomonas aeruginosa</i>	amikacin	23	53	76	30.3%
<i>Pseudomonas aeruginosa</i>	aztreonam	42	31	73	57.5%
<i>Pseudomonas aeruginosa</i>	cefepime	49	24	73	67.1%
<i>Pseudomonas aeruginosa</i>	ceftazidime	52	25	77	67.5%
<i>Pseudomonas aeruginosa</i>	doripenem	54	22	76	71.1%
<i>Pseudomonas aeruginosa</i>	gentamicin	45	31	76	59.2%
<i>Pseudomonas aeruginosa</i>	imipenem	68	12	80	85.0%
<i>Pseudomonas aeruginosa</i>	meropenem	56	17	73	76.7%
<i>Pseudomonas aeruginosa</i>	piperacillin-tazobactam	44	27	71	62.0%
<i>Pseudomonas aeruginosa</i>	tobramycin	47	34	81	58.0%
<i>Salmonella enterica</i>	amoxicillin-clavulanic acid	254	1031	1,285	19.8%
<i>Salmonella enterica</i>	ampicillin	448	901	1,349	33.2%
<i>Salmonella enterica</i>	cefoxitin	205	1086	1,291	15.9%
<i>Salmonella enterica</i>	ceftiofur	254	1086	1,340	19.0%
<i>Salmonella enterica</i>	ceftriaxone	260	1085	1,345	19.3%
<i>Salmonella enterica</i>	chloramphenicol	44	1293	1,337	3.3%
<i>Salmonella enterica</i>	gentamicin	164	1169	1,333	12.3%
<i>Salmonella enterica</i>	kanamycin	97	939	1,036	9.4%
<i>Salmonella enterica</i>	tetracycline	710	629	1,339	53.0%

<i>Salmonella enterica</i>	trimethoprim-sulfamethoxazole	9	1340	1,349	0.7%
<i>Staphylococcus aureus</i>	clindamycin	9	15	24	37.5%
<i>Staphylococcus aureus</i>	levofloxacin	21	10	31	67.7%
<i>Staphylococcus aureus</i>	tetracycline	3	28	31	9.7%
<i>Streptococcus pneumoniae</i>	amoxicillin	4	167	171	2.3%
<i>Streptococcus pneumoniae</i>	cefuroxime	17	161	178	9.6%
<i>Streptococcus pneumoniae</i>	clindamycin	11	305	316	3.5%
<i>Streptococcus pneumoniae</i>	erythromycin	89	228	317	28.1%
<i>Streptococcus pneumoniae</i>	meropenem	10	163	173	5.8%
<i>Streptococcus pneumoniae</i>	tetracycline	19	296	315	6.0%
<i>Streptococcus pneumoniae</i>	trimethoprim-sulfamethoxazole	16	259	275	5.8%