

Antibiotic resistance of bacteria isolated from chicken samples

All bacteria identified were tested for antibiotic susceptibility using standard panels of antibiotics. Bacteria were classified as susceptible, having intermediate resistance, or resistant to each antibiotic tested according to the breakpoints established by the government's National Antimicrobial Resistance Monitoring System (NARMS) and the Clinical and Laboratory Standards Institute (CLSI). The table below shows the number of bacteria that were resistant to each of the tested antibiotics.

Antibiotic Class	Antibiotic	Susceptible	Intermediate	Resistant
CAMPYLOBACTER (129 isolates)				
Aminoglycoside	Gentamicin	122	2	5
	Kanamycin	94	1	34
Macrolide	Erythromycin	92	3	34
	Telithromycin	111	6	12
Tetracycline	Tetracycline	70	2	57
Lincosamide	Clindamycin	97	15	17
Phenicol	Florfenicol	128	0	1
Quinolone	Ciprofloxacin	82	1	46
	Nalidixic Acid	63	9	57
ESCHERICHIA COLI (233 isolates)				
Aminoglycoside	Gentamicin	125	23	85
	Kanamycin	210	5	18
	Streptomycin	136	0	97
Macrolide	Azithromycin	229	0	4
Penicillin	Ampicillin	154	9	70
Tetracycline	Tetracycline	122	8	103
Cephem	Cefoxitin	202	8	23
	Ceftiofur	209	3	21
	Ceftriaxone	205	4	24
Beta-Lactam/ Beta-Lactamase Inhibitor	Amoxicillin/ Clavulanic Acid	192	9	32
Folate Pathway Inhibitor	Sulfisoxazole	117	0	116
	Trimethoprim/ Sulfamethoxazole	214	0	19
Phenicol	Chloramphenicol	222	6	5
Quinolone	Ciprofloxacin	232	1	0
	Nalidixic Acid	227	0	6
ENTEROCOCCUS FAECALIS (141 isolates)				
Aminoglycoside	Gentamicin	104	0	37
	Kanamycin	98	0	43
	Streptomycin	128	0	13
Macrolide	Erythromycin	29	68	44
	Tylosin Tartrate	93	0	48
Penicillin	Penicillin	138	0	3
Tetracycline	Tetracycline	60	1	80
	Tigecycline	141	0	0
Glycopeptide	Vancomycin	140	1	0
Lipopeptide	Daptomycin*	140	0	0
Nitrofurantoin	Nitrofurantoin	124	14	3
Oxazolidinone	Linezolid	137	4	0
Phenicol	Chloramphenicol	130	11	0
Quinolone	Ciprofloxacin	97	41	3
NON-FAECALIS ENTEROCOCCUS SPECIES (111 isolates)				
Aminoglycoside	Gentamicin	96	0	15
	Kanamycin	90	0	21
	Streptomycin	92	0	19
Macrolide	Erythromycin	22	48	41
	Tylosin Tartrate	69	0	42
Penicillin	Penicillin	97	0	14
Tetracycline	Tetracycline	50	1	60
	Tigecycline	111	0	0
Glycopeptide	Vancomycin	110	1	0
Lipopeptide	Daptomycin*	97	0	0
Nitrofurantoin	Nitrofurantoin	27	61	23
Oxazolidinone	Linezolid	108	3	0
Phenicol	Chloramphenicol	108	2	1
Quinolone	Ciprofloxacin	46	36	29
KLEBSIELLA PNEUMONIAE (47 isolates)				
Aminoglycoside	Amikacin	47	0	0
	Gentamicin	46	0	1
	Kanamycin	45	1	1
	Streptomycin	47	0	0
	Tobramycin	47	0	0
Macrolide	Azithromycin	47	0	0
Penicillin	Piperacillin	40	3	4
Tetracycline	Minocycline	45	1	1
	Tetracycline	45	0	2
	Tigecycline	47	0	0
Cephem	Cefazolin	32	8	7
	Cefepime	46	1	0
	Cefoxitin	45	0	2
	Ceftazidime	46	0	1
	Ceftiofur	46	0	1
	Ceftriaxone	46	0	2
Beta-Lactam/ Beta-Lactamase Inhibitor	Amoxicillin/ Clavulanic Acid	45	0	2
	Amoxicillin/ Sulbactam	40	3	4
	Piperacillin/ Tazobactam	47	0	0
	Ticarcillin/ Clavulanic Acid	43	4	0
Carbapenem	Doripenem	47	0	0
	Ertapenem	44	1	2
	Imipenem	47	0	0
	Meropenem	47	0	0
Folate Pathway Inhibitor	Sulfisoxazole	43	0	4
	Trimethoprim/ Sulfamethoxazole	43	0	4
Monobactam	Aztreonam	46	0	1
Nitrofurantoin	Nitrofurantoin	41	4	2
Phenicol	Chloramphenicol	43	3	1
Quinolone	Ciprofloxacin	47	0	0
	Levofloxacin	47	0	0
	Nalidixic Acid	47	0	0
STAPHYLOCOCCUS AUREUS (28 isolates)				
Aminoglycoside	Gentamicin	28	0	0
Macrolide	Erythromycin	27	0	1
Penicillin	Cefoxitin	23	0	5
	Ceftiofur	27	0	1
	Ceftriaxone	21	0	7
Tetracycline	Tetracycline	21	3	4
	Tigecycline	28	0	0
Cephem	Cefoxitin	28	0	0
	Ceftriaxone	27	0	1
Ansamycin	Rifampin	27	0	1
Folate Pathway Inhibitor	Trimethoprim/ Sulfamethoxazole	27	0	1
Glycopeptide	Vancomycin	27	0	1
Lincosamide	Clindamycin	27	0	1
Lipopeptide	Daptomycin	26	0	2
Nitrofurantoin	Nitrofurantoin	27	0	1
Oxazolidinone	Linezolid	27	0	1
Phenicol	Chloramphenicol	18	9	1
	Ciprofloxacin	15	12	1
	Levofloxacin	28	0	0
Quinolone	Moxifloxacin	28	0	0
Streptogramin	Quinupristin/ Dalfopristin	27	0	1
SALMONELLA (34 isolates)				
Aminoglycoside	Gentamicin	28	1	5
	Kanamycin	23	0	11
	Streptomycin	17	0	17
Macrolide	Azithromycin	34	0	0
Penicillin	Ampicillin	23	0	11
Tetracycline	Tetracycline	10	5	19
Cephem	Cefoxitin	26	5	3
	Ceftiofur	26	1	7
	Ceftriaxone	32	2	0
Beta-Lactam/ Beta-Lactamase Inhibitor	Amoxicillin/ Clavulanic Acid	22	1	11
Folate Pathway Inhibitor	Sulfisoxazole	20	0	14
	Trimethoprim/ Sulfamethoxazole	34	0	0
Phenicol	Chloramphenicol	28	2	4
Quinolone	Ciprofloxacin	34	0	0
	Nalidixic Acid	34	0	0

*Daptomycin minimum inhibitory concentrations for 1 E. faecalis and 14 non-faecalis enterococcus isolates fell into the range where resistance level is not defined; these isolates were considered not susceptible to daptomycin.