

Table 1. Breakpoints Used for Susceptibility Testing of *Salmonella* and *E. coli*¹

CLSI Class ²	Antimicrobial Agent	Antimicrobial Concentration Range (µg/ml)								Breakpoints (µg/ml)		
		1997	1998	1999	2000	2001	2002-2003	2004-2010	2011-2012	Susceptible	Intermediate	Resistant
Aminoglycosides	Amikacin	4 - 32	4 - 32	4 - 32	4 - 32	4 - 32	0.5 - 4	0.5 - 64	NT	≤ 16	32	≥ 64
	Apramycin	2 - 16	2 - 16	2 - 32	2 - 32	2 - 32	NT	NT	NT	N/A	N/A	≥ 32
	Gentamicin	0.25 - 16	0.25 - 16	0.25 - 16	0.25 - 16	0.25 - 16	0.25 - 16	0.25 - 16	0.25 - 16	≤ 4	8	≥ 16
	Kanamycin	16 - 64	16 - 64	16 - 64	16 - 64	16 - 64	8 - 64	8 - 64	8 - 64	≤ 16	32	≥ 64
	Streptomycin ³	32 - 256	32 - 256	32 - 256	32 - 256	32 - 64	32 - 64	32 - 64	32 - 64	≤ 32	N/A	≥ 64
β-Lactam/β-Lactamase Inhibitor Combinations	Amoxicillin-Clavulanic Acid	0.5/0.25 - 32/16	0.5/0.25 - 32/16	0.5/0.25 - 32/16	0.5/0.25 - 32/16	0.5/0.25 - 32/16	1/0.5 - 32/16	1/0.5 - 32/16	1/0.5 - 32/16	≤ 8 / 4	16/8	≥ 32 / 16
Carbapenem	Imipenem	NT	NT	NT	NT	0.25 - 8	NT	NT	NT	≤ 4	8	≥ 16
Carboxypenicillins	Ticarcillin	2 - 128	2 - 128	NT	NT	NT	NT	NT	NT	≤ 16	32 - 64	≥ 128
Cephems	Cephalothin	1 - 32	1 - 32	1 - 32	1 - 32	1 - 32	2 - 32	NT	NT	≤ 8	16	≥ 32
	Ceftiofur	0.5 - 16	0.5 - 16	0.5 - 16	0.5 - 16	0.5 - 16	0.12 - 8	0.12 - 8	0.12 - 8	≤ 2	4	≥ 8
	Cefoxitin	NT	NT	NT	4 - 32	4 - 32	0.5 - 16	0.5 - 32	0.5 - 32	≤ 8	16	≥ 32
	Ceftriaxone	0.25 - 16	0.25 - 16	0.25 - 64	0.25 - 64	0.25 - 64	0.25 - 64	0.25 - 64	0.25 - 64	≤ 1	2	≥ 4
Folate Pathway Inhibitors	Sulfonamides Sulfamethoxazole: 1998-2002/Sulfamethoxazole: 2004-2009	128 - 512	128 - 512	128 - 512	128 - 512	128 - 512	16 - 512	16 - 256	16 - 256	≤ 256	N/A	≥ 512
	Trimethoprim-Sulfamethoxazole	0.12/2.4 - 4/76	0.12/2.4 - 4/76	0.12/2.4 - 4/76	0.12/2.4 - 4/76	0.12/2.4 - 4/76	0.12/2.4 - 4/76	0.12/2.4 - 4/76	0.12/2.4 - 4/76	≤ 2 / 38	N/A	≥ 4 / 76
Macrolide	Azithromycin ³	NT	NT	NT	NT	NT	NT	NT	0.12 - 16	N/A	N/A	N/A
Penicillins	Ampicillin	2 - 64	2 - 64	2 - 32	2 - 32	2 - 32	1 - 32	1 - 32	1 - 32	≤ 8	16	≥ 32
Phenicol	Chloramphenicol	4 - 32	4 - 32	4 - 32	4 - 32	4 - 32	2 - 32	2 - 32	2 - 32	≤ 8	16	≥ 32
	Florfenicol	NT	NT	2 - 16	NT	NT	NT	NT	NT	N/A	N/A	N/A
Quinolones	Ciprofloxacin	0.015 - 2	0.015 - 2	0.015 - 4	0.015 - 4	0.015 - 4	0.015 - 4	0.015 - 4	0.015 - 4	≤ 0.06	0.12 - 0.5	≥ 1
	Nalidixic acid	4 - 64	4 - 64	4 - 256	4 - 256	4 - 64	0.5 - 32	0.5 - 32	0.5 - 32	≤ 16	N/A	≥ 32
Tetracyclines	Tetracycline	4 - 64	4 - 64	4 - 32	4 - 32	8 - 16	4 - 32	4 - 32	4 - 32	≤ 4	8	≥ 16

¹ Breakpoints established by CLSI (Clinical and Laboratory Standards Institute) were used when available

² According to CLSI M100 document

³ There are no CLSI breakpoints for streptomycin or azithromycin (NARMS has not yet established breakpoints to be used for azithromycin interpretation)

NT=Not tested
NA= Not applicable