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ANTIBIOTIC	CODE	CLSI INTERPRETATIVE CRITERIA ¹	S≤	SDD	I	R≥	EUCAST INTERPRETATIVE CRITERIA ²	S≤	R>	QUALITY CONTROL	MIC µg/mL
			MIC µg/mL					MIC µg/mL			
AMIKACIN 0.016 - 256 µg/mL	AK	Enterobacteriaceae	16		32	64	Enterobacteriaceae	8	16	<i>S. aureus</i>	ATCC® 29213 1-4
		<i>P. aeruginosa</i>	16		32	64	<i>Pseudomonas</i> spp.	8	16	<i>E. faecalis</i>	ATCC® 29212 64-256
		<i>Acinetobacter</i> spp.	16		32	64	<i>Acinetobacter</i> spp.	8	16	<i>E. coli</i>	ATCC® 25922 0.5-4
		Other Non-Enterobacteriaceae	16		32	64	<i>S. aureus</i>	8	16	<i>P. aeruginosa</i>	ATCC® 27853 1-4
		<i>Staphylococcus</i> spp.	16		32	64	Coagulase-negative Staphylococci	8	16		
AMOXICILLIN 0.016 - 256 µg/mL	AML	<i>S. pneumoniae</i> (nonmeningitis)	2	4	8	PK/PD (Non-species related) breakpoints	PK/PD (Non-species related) breakpoints	8	16		
							Enterobacteriaceae	8	8	<i>K. pneumoniae</i>	ATCC® 700603 > 128
							<i>Enterococcus</i> spp.	4	8	<i>S. pneumoniae</i>	ATCC® 49619 0.03-0.12
							Viridans group streptococci	0.5	2	<i>E. coli</i>	ATCC® 25922 2-8
							<i>H. influenzae</i>	2	2	<i>H. influenzae</i>	ATCC® 49766 0.125-0.5
							<i>N. meningitidis</i>	0.12	1		
							Gram-positive anaerobes except <i>C. difficile</i>	4	8		
							Gram-negative anaerobes	0.5	2		
							<i>H. pylori</i>	0.12	0.12		
							<i>P. multocida</i>	1	1		
AMOXICILLIN* - CLAVULANIC ACID (2/1) 0.016 - 256 * µg/mL <i>CLSI recommended</i>	AUG	<i>S. pneumoniae</i> (nonmeningitis)	2	4	8	PK/PD (Non-species related) breakpoints		<i>K. pneumoniae</i>	ATCC® 700603 4-16	<i>H. influenzae</i>	ATCC® 49247 2-16
AMOXICILLIN*- CLAVULANIC ACID (2 µg/mL) 0.016 - 256 * µg/mL <i>EUCAST recommended</i>	AMC					Enterobacteriaceae	8	8	<i>E. coli</i>	ATCC® 25922 2-8	
							Enterobacteriaceae (uncomplicated UTI only)	32	32	<i>H. influenzae</i>	ATCC® 49766 0.125-0.5
							<i>Enterococcus</i> spp.	4	8	<i>E. coli</i>	ATCC® 35218 4-32
							<i>H. influenzae</i>	2	2		
							<i>M. catarrhalis</i>	1	1		
							Gram-positive anaerobes except <i>C. difficile</i>	4	8		
							Gram-negative anaerobes	4	8		
							<i>P. multocida</i>	1	1		
							PK/PD (Non-species related) breakpoints	2	8		

ANTIBIOTIC	CODE	CLSI INTERPRETATIVE CRITERIA ¹	S≤	SDD MIC µg/mL	I	R≥	EUCAST INTERPRETATIVE CRITERIA ²	S≤	R>	QUALITY CONTROL	MIC µg/mL	
AMPICILLIN 0.016 - 256 µg/mL	AMP	Enterobacteriaceae <i>Staphylococcus</i> spp. <i>Enterococcus</i> spp. <i>Haemophilus</i> spp. <i>Streptococcus</i> spp. β-Hemolytic Group <i>Streptococcus</i> spp. Viridans Group <i>N. meningitidis</i> Anaerobes	8 0.25 8 1 0.25 0.25 0.12 0.5	16 - - 2 - 0.5-4 0.25-1 1	32 0.5 16 4 - 8 2 2	Enterobacteriaceae <i>Enterococcus</i> spp. <i>S. pneumoniae</i> Viridans group streptococci <i>H. influenzae</i> <i>N. meningitidis</i> Gram-positive anaerobes except <i>C. difficile</i> Gram-negative anaerobes <i>L. monocytogenes</i> <i>P. multocida</i> <i>Aerococcus sanguinicola</i> and <i>urinae</i> <i>Kingella kingae</i> PK/PD (Non-species related) breakpoints	8 4 0.5 0.5 0.12 4 0.5 1 1 0.25 0.06 2	8 8 2 1 1 8 2 2 0.25 0.06 8	<i>S. aureus</i> <i>E. faecalis</i> <i>E. coli</i> <i>E. coli</i> <i>K. pneumoniae</i> <i>H. influenzae</i> <i>S. pneumoniae</i> <i>H. influenzae</i>	ATCC® 29213 ATCC® 29212 ATCC® 25922 ATCC® 35218 ATCC® 700603 ATCC® 49247 ATCC® 49619 ATCC® 49766	0.5-2 0.5-2 2-8 >32 >128 2-8 0.06-0.25 0.06-0.25	
AMPICILLIN* - SULBACTAM (2/1) 0.016 - 256 * µg/mL CLSI recommended	AMS	Enterobacteriaceae <i>Acinetobacter</i> spp. <i>Staphylococcus</i> spp. <i>Haemophilus</i> spp. Anaerobes	8 8 8 2 8	16 16 16 - 16	32 32 32 4 32				<i>E. coli</i> <i>E. coli</i> <i>K. pneumoniae</i> <i>H. influenzae</i> <i>B. fragilis</i> <i>B. thetaiotaomicron</i> <i>E. lenta</i>	ATCC® 25922 ATCC® 35218 ATCC® 700603 ATCC® 49247 ATCC® 25285 ATCC® 29741 ATCC® 43055	2-8 8-32 8-32 2-8 0.5-2 0.5-2 0.5-2	
AMPICILLIN*- SULBACTAM (4 µg/mL) 0.016 - 256 * µg/mL EUCAST recommended	SAM						Enterobacteriaceae <i>Enterococcus</i> spp. <i>H. influenzae</i> <i>M. catarhalis</i> Gram-positive anaerobes except <i>C. difficile</i> Gram-negative anaerobes PK/PD (Non-species related) breakpoints	8 4 1 1 4 4 2	8 8 1 1 8 8 8	<i>E. coli</i> <i>H. influenzae</i> <i>E. coli</i>	ATCC® 25922 ATCC® 49766 ATCC® 35218	1-4 0.06-0.25 16-128
AZITHROMYCIN 0.016 - 256 µg/mL	AZM	<i>S. Typhi</i> <i>Staphylococcus</i> spp. <i>H. influenzae</i> <i>S. pneumoniae</i> <i>Streptococcus</i> spp. β-Hemolytic Group <i>Streptococcus</i> spp. Viridans Group <i>N. meningitidis</i>	16 2 4 0.5 0.5 0.5 2	- 4 - 1 1 1 -	32 8 - 2 2 	<i>Staphylococcus</i> spp. Streptococcus groups A, B, C and G <i>S. pneumoniae</i> <i>H. influenzae</i> <i>M. catarhalis</i> 	1 0.25 0.25 0.12 0.25 0.25 0.25	2 0.5 0.5 4 0.5 0.5 0.25	<i>S. aureus</i> <i>H. influenzae</i> (-CO ₂) <i>H. influenzae</i> (+CO ₂) <i>S. pneumoniae</i> (-CO ₂) <i>S. pneumoniae</i> (+CO ₂) <i>N. gonorrhoeae</i>	ATCC® 29213 ATCC® 49247 ATCC® 49247 ATCC® 49619 ATCC® 49619 ATCC® 49226	0.5-2 1-4 4-16 0.06-0.25 0.5-2 0.25-1	
AZTREONAM 0.016 - 256 µg/mL 0.064 - 1024 µg/mL	ATM	Enterobacteriaceae <i>P. aeruginosa</i> Other Non-Enterobacteriaceae <i>Haemophilus</i> spp.	4 8 8 2	8 16 16 -	16 32 32 -	Enterobacteriaceae <i>Pseudomonas</i> spp. PK/PD (Non-species related) breakpoints	1 1 4	4 16 8	<i>E. coli</i> <i>P. aeruginosa</i> <i>E. coli</i> <i>H. influenzae</i>	ATCC® 25922 ATCC® 27853 ATCC® 35218 ATCC® 49247	0.06-0.25 2-8 0.03-0.12 0.12-0.5	
CEFACLOR 0.016 - 256 µg/mL	CEC	Enterobacteriaceae <i>Staphylococcus</i> spp. <i>Haemophilus</i> spp. <i>S. pneumoniae</i>	8 8 8 1	16 16 16 2	32 32 32 4	<i>S. pneumoniae</i> <i>H. influenzae</i>	0.03 0.5	0.5 0.5	<i>S. aureus</i> <i>E. coli</i> <i>H. influenzae</i> <i>S. pneumoniae</i>	ATCC® 29213 ATCC® 25922 ATCC® 49766 ATCC® 49619	1-4 1-4 1-4 1-4	
CEFAZOLIN 0.016 - 256 µg/mL	KZ	Enterobacteriaceae Enterobacteriaceae (surrogate test for uncomplicated UTI)	2 16	4 32	8 32	Viridans group streptococci PK/PD (Non-species related) breakpoints	0.5 1	0.5 2	<i>S. aureus</i> <i>E. coli</i>	ATCC® 29213 ATCC® 25922	0.25-1 1-4	

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CEFEPIME 0.016 - 256 µg/mL 0.002 - 32 µg/mL	FEP	Enterobacteriaceae	2	4-8	-	16	Enterobacteriaceae	1	4	<i>S. aureus</i>	ATCC® 29213 1-4			
		<i>P. aeruginosa</i>	8		16	32	<i>Pseudomonas</i> spp.	8	8	<i>E. coli</i>	ATCC® 25922 0.016-0.12			
		<i>Acinetobacter</i> spp.	8		16	32	<i>S. pneumoniae</i>	1	2	<i>P. aeruginosa</i>	ATCC® 27853 0.5-4			
		Other non-Enterobacteriaceae	8		16	32	Viridans group streptococci	0.5	0.5	<i>H. influenzae</i>	ATCC® 49247 0.5-2			
		<i>Haemophilus</i> spp.	2		-	-	<i>H. influenzae</i>	0.25	0.25	<i>S. pneumoniae</i>	ATCC® 49619 0.03-0.25			
		<i>N. gonorrhoeae</i>	0.5		-	-	<i>M. catarrhalis</i>	4	4	<i>N. gonorrhoeae</i>	ATCC® 49226 0.016-0.06			
		<i>S. pneumoniae</i> (meningitis)	0.5		1	2	PK/PD (Non-species related) breakpoints	4	8	<i>H. influenzae</i>	ATCC® 49766 0.03-0.125			
		<i>S. pneumoniae</i> (nonmeningitis)	1		2	4								
		<i>Streptococcus</i> spp. β-Hemolytic Group	0.5		-	-								
		<i>Streptococcus</i> spp. Viridans Group	1		2	4								
CEFIXIME 0.016 - 256 µg/mL	CFM	Enterobacteriaceae	1		2	4	Enterobacteriaceae	1	1	<i>S. aureus</i>	ATCC® 29213 8-32			
		<i>Haemophilus</i> spp.	1		-	-	<i>H. influenzae</i>	0.12	0.12	<i>E. coli</i>	ATCC® 25922 0.25-1			
		<i>N. gonorrhoeae</i>	0.25		-	-	<i>M. catarrhalis</i>	0.5	1	<i>H. influenzae</i>	ATCC® 49247 0.12-1			
CEFOTAXIME 0.016 - 256 µg/mL 0.002 - 32 µg/mL	CTX	Enterobacteriaceae	1		2	4	<i>S. pneumoniae</i>	0.5	2	<i>N. gonorrhoeae</i>	ATCC® 49226 0.004-0.03			
		<i>Acinetobacter</i> spp.	8	16-32	64		Viridans group streptococci	0.5	0.5	<i>H. influenzae</i>	ATCC® 49766 0.016-0.06			
		Other Non-Enterobacteriaceae	8	16-32	64		<i>H. influenzae</i>	0.12	0.12	<i>S. aureus</i>	ATCC® 29213 1-4			
		<i>Staphylococcus</i> spp.	8	16-32	64		<i>M. catarrhalis</i>	1	2	<i>E. coli</i>	ATCC® 25922 0.03-0.12			
		<i>Haemophilus</i> spp.	2		-	-	<i>N. gonorrhoeae</i>	0.12	0.12	<i>P. aeruginosa</i>	ATCC® 27853 8-32			
		<i>N. gonorrhoeae</i>	0.5		-	-	<i>M. catarrhalis</i>	0.12	0.12	<i>H. influenzae</i>	ATCC® 49247 0.12-0.5			
		<i>S. pneumoniae</i> (meningitis)	0.5		1	2	<i>N. meningitidis</i>	0.12	0.12	<i>S. pneumoniae</i>	ATCC® 49619 0.03-0.12			
		<i>S. pneumoniae</i> (nonmeningitis)	1		2	4	<i>P. multocida</i>	0.03	0.03	<i>N. gonorrhoeae</i>	ATCC® 49226 0.016-0.06			
		<i>Streptococcus</i> spp. β-Hemolytic Group	0.5		-	-	<i>Kingella kingae</i>	0.12	0.12	<i>H. influenzae</i>	ATCC® 49766 0.004-0.016			
		<i>Streptococcus</i> spp. Viridans Group	1		2	4	PK/PD (Non-species related) breakpoints	1	2					
		<i>N. meningitidis</i>	0.12		-	-								
		Anaerobes	16		32	64								
CEFOTETAN 0.016 - 256 µg/mL	CTT	Enterobacteriaceae	16		32	64	Not available			<i>S. aureus</i>	ATCC® 29213 4-16			
		<i>Staphylococcus</i> spp.	16		32	64				<i>E. coli</i>	ATCC® 25922 0.06-0.25			
		<i>N. gonorrhoeae</i>	2		4	8				<i>N. gonorrhoeae</i>	ATCC® 49226 0.5-2			
		Anaerobes	16		32	64				<i>B. fragilis</i>	ATCC® 25285 1-8			
CEFOXITIN 0.016 - 256 µg/mL	FOX	Enterobacteriaceae	8		16	32	<i>S. aureus</i> and <i>S. lugdunensis</i> (Methicillin/Oxacillin Resistant Staphylococci)	4	4	<i>B. thetaiaomicron</i>	ATCC® 29741 16-128			
		<i>Staphylococcus</i> spp.	4		-	8				<i>E. lenta</i>	ATCC® 43055 16-64			
		<i>N. gonorrhoeae</i>	2		4	8				<i>S. aureus</i>	ATCC® 29213 1-4			
		Anaerobes	16		32	64				<i>E. coli</i>	ATCC® 25922 2-8			
CEPIROME 0.016 - 256 µg/mL	CR	Not available				Not available				<i>N. gonorrhoeae</i>	ATCC® 49226 0.5-2			
										<i>H. influenzae</i>	ATCC® 49247 0.25-1			
CEFPODOXIME 0.016 - 256 µg/mL	PX	Enterobacteriaceae	2		4	8	Enterobacteriaceae	1	1	<i>S. aureus</i>	ATCC® 29213 1-8			
		<i>Staphylococcus</i> spp.	2		4	8	<i>S. pneumoniae</i>	0.25	0.5	<i>E. coli</i>	ATCC® 25922 0.25-1			
		<i>Haemophilus</i> spp.	2		-	-	<i>H. influenzae</i>	0.25	0.5	<i>H. influenzae</i>	ATCC® 49247 0.25-1			
		<i>N. gonorrhoeae</i>	0.5		-	-				<i>S. pneumoniae</i>	ATCC® 49619 0.03-0.12			
		<i>S. pneumoniae</i>	0.5		1	2				<i>N. gonorrhoeae</i>	ATCC® 49226 0.03-0.12			
											ATCC® 49766 0.03-0.125			

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CEFTAROLINE 0.016 - 256 µg/mL 0.002 - 32 µg/mL	CPT	Enterobacteriaceae <i>Staphylococcus</i> spp. <i>Haemophilus</i> spp. <i>S. pneumoniae</i> (nonmeningitis) <i>Streptococcus</i> spp. β-Hemolytic Group	0.5 1 0.5 0.5 0.5	1 2 - - -	2 4 - - -	Enterobacteriaceae <i>S. aureus</i> <i>S. pneumoniae</i> <i>H. influenzae</i> PK/PD (Non-species related) breakpoints	0.5 1 0.25 0.03 0.5	0.5 1 0.25 0.03 0.5	<i>S. aureus</i> <i>E. faecalis</i> <i>E. coli</i> <i>K. pneumoniae</i> <i>H. influenzae</i> <i>S. pneumoniae</i> <i>B. fragilis</i> <i>B. thetaiotaomicron</i> <i>C. difficile</i> <i>H. influenzae</i>	ATCC® 29213 ATCC® 29212 ATCC® 25922 ATCC® 700603 ATCC® 49247 ATCC® 49619 ATCC® 25285 ATCC® 29741 ATCC® 700057 ATCC® 49766	0.12-0.5 0.25-2 0.03-0.12 2-8 0.03-0.12 0.008-0.03 2-16 8-64 0.5-4 0.004-0.016	
CEFTAZIDIME 0.016 - 256 µg/mL	CAZ	Enterobacteriaceae <i>P. aeruginosa</i> <i>Acinetobacter</i> spp. <i>B. cepacia</i> <i>S. maltophilia</i> Other Non-Enterobacteriaceae <i>Staphylococcus</i> spp. <i>Haemophilus</i> spp. <i>N. gonorrhoeae</i>	4 8 8 8 8 8 8 2 0.5	8 16 16 16 16 16 16 16 -	16 32 32 32 32 32 32 32 -	Enterobacteriaceae <i>Pseudomonas</i> spp. PK/PD (Non-species related) breakpoints	1 8 4	4 8 8	<i>S. aureus</i> <i>E. coli</i> <i>P. aeruginosa</i> <i>K. pneumoniae</i> <i>H. influenzae</i> <i>N. gonorrhoeae</i>	ATCC® 29213 ATCC® 25922 ATCC® 27853 ATCC® 700603 ATCC® 49247 ATCC® 49226	4-16 0.06-0.5 1-4 16-64 0.12-1 0.03-0.12	
CEFTAZIDIME*-AVIBACTAM (4 µg/mL) 0.016 - 256 * µg/mL	CZA	Not available					Enterobacteriaceae <i>Pseudomonas</i> spp. PK/PD (Non-species related) breakpoints	8 8 8	8 8 8	<i>S. aureus</i> <i>E. coli</i> <i>P. aeruginosa</i> <i>E. coli</i> <i>K. pneumoniae</i> <i>H. influenzae</i> <i>H. influenzae</i> <i>S. pneumoniae</i>	ATCC® 29213 ATCC® 25922 ATCC® 27853 ATCC® 35218 ATCC® 700603 ATCC® 49247 ATCC® 49766 ATCC® 49619	4-16 0.06-0.5 0.5-4 0.03-0.12 0.25-2 0.06-0.5 0.016-0.06 0.25-2
CEFTIBUTEN 0.002 - 32 µg/mL	CTB	Enterobacteriaceae <i>H. influenzae</i>	8 2	16 -	32 -	Enterobacteriaceae (UTI only) <i>H. influenzae</i>	1 1	1 1	<i>E. coli</i> <i>H. influenzae</i> <i>H. influenzae</i>	ATCC® 25922 ATCC® 49247 ATCC® 49766	0.12-0.5 0.25-1 0.016-0.06	
CEFTIZOXIME 0.002 - 32 µg/mL 0.016 - 256 µg/mL	CZX	Enterobacteriaceae Other Non-Enterobacteriaceae <i>Staphylococcus</i> spp. <i>Haemophilus</i> spp. <i>N. gonorrhoeae</i> Anaerobes	1 8 8 2 0.5 32	2 16-32 16-32 - - 64	4 64 64 - - 128	Not available			<i>S. aureus</i> <i>E. coli</i> <i>P. aeruginosa</i> <i>H. influenzae</i> <i>S. pneumoniae</i> <i>N. gonorrhoeae</i> <i>E. lenta</i>	ATCC® 29213 ATCC® 25922 ATCC® 27853 ATCC® 49247 ATCC® 49619 ATCC® 49226 ATCC® 43055	2-8 0.03-0.12 16-64 0.06-0.5 0.12-0.5 0.008-0.03 8-32	
CEFTOBIPROLE 0.002 - 32 µg/mL	BPR	Not available					Enterobacteriaceae <i>S. aureus</i> <i>S. pneumoniae</i> PK/PD (Non-species related) breakpoints	0.25 2 0.5 4	0.25 2 0.5 4	<i>S. aureus</i> <i>E. faecalis</i> <i>E. coli</i> <i>P. aeruginosa</i> <i>H. influenzae</i> <i>H. influenzae</i> <i>S. pneumoniae</i>	ATCC® 29213 ATCC® 29212 ATCC® 25922 ATCC® 27853 ATCC® 49247 ATCC® 49766 ATCC® 49619	0.12-1 0.06-0.5 0.03-0.12 1-4 0.12-1 0.016-0.06 0.004-0.03
CEFTOLOZANE*-TAZOBACTAM (4 µg/mL) 0.016 - 256 * µg/mL	C/T	Enterobacteriaceae <i>P. aeruginosa</i> <i>Streptococcus</i> spp. Viridans Group	2 4 8	4 8 16	8 16 32	Enterobacteriaceae <i>P. aeruginosa</i>	1 4	1 4	<i>S. aureus</i> <i>E. coli</i> <i>P. aeruginosa</i> <i>E. coli</i> <i>K. pneumoniae</i>	ATCC® 29213 ATCC® 25922 ATCC® 27853 ATCC® 35218 ATCC® 700603	16-64 0.12-0.5 0.25-1 0.06-0.25 0.5-2	

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CEFTRIAXONE 0.016 - 256 µg/mL 0.002 - 32 µg/mL	CRO	Enterobacteriaceae	1		2	4	Enterobacteriaceae	1	2	<i>S. aureus</i>	ATCC® 29213 1-8
		<i>Acinetobacter</i> spp.	8		16-32	64	<i>S. pneumoniae</i>	0.5	2	<i>E. coli</i>	ATCC® 25922 0.03-0.12
		Other Non-Enterobacteriaceae	8		16-32	64	Viridans group streptococci	0.5	0.5	<i>P. aeruginosa</i>	ATCC® 27853 8-64
		<i>Staphylococcus</i> spp.	8		16-32	64	<i>H. influenzae</i>	0.12	0.12	<i>H. influenzae</i>	ATCC® 49247 0.06-0.25
		<i>Haemophilus</i> spp.	2		-	-	<i>M. catarrhalis</i>	1	2	<i>S. pneumoniae</i>	ATCC® 49619 0.03-0.12
		<i>N. gonorrhoeae</i>	0.25		-	-	<i>N. gonorrhoeae</i>	0.12	0.12	<i>N. gonorrhoeae</i>	ATCC® 49226 0.004-0.016
		<i>S. pneumoniae</i> (meningitis)	0.5		1	2	<i>N. meningitidis</i>	0.12	0.12	<i>H. influenzae</i>	ATCC® 49766 0.002-0.008
		<i>S. pneumoniae</i> (nonmeningitis)	1		2	4	<i>Kingella kingae</i>	0.06	0.06		
		<i>Streptococcus</i> spp. β-Hemolytic Group	0.5		-	-	PK/PD (Non-species related) breakpoints	1	2		
		<i>Streptococcus</i> spp. Viridans Group	1		2	4					
		<i>N. meningitidis</i>	0.12		-	-					
		Anaerobes	16		32	64					
CEFUROXIME 0.016 - 256 µg/mL	CXM	Enterobacteriaceae (parenteral)	8		16	32	Enterobacteriaceae	8	8	<i>S. aureus</i>	ATCC® 29213 0.5-2
		Enterobacteriaceae (oral)	4		8-16	32	<i>S. pneumoniae</i> (iv)	0.5	1	<i>E. coli</i>	ATCC® 25922 2-8
		<i>Haemophilus</i> spp	4		8	16	<i>S. pneumoniae</i> (oral)	0.25	0.5	<i>H. influenzae</i>	ATCC® 49766 0.25-1
		<i>N. gonorrhoeae</i>	1		2	4	Viridans group streptococci (iv)	0.5	0.5	<i>S. pneumoniae</i>	ATCC® 49619 0.25-1
		<i>S. pneumoniae</i> (parenteral)	0.5		1	2	<i>H. influenzae</i> (iv)	1	2	<i>N. gonorrhoeae</i>	ATCC® 49226 0.25-1
		<i>S. pneumoniae</i> (oral)	1		2	4	<i>H. influenzae</i> (oral)	0.12	1		
							<i>M. catarrhalis</i> (iv)	4	8		
							<i>M. catarrhalis</i> (oral)	0.12	4		
							<i>Kingella kingae</i> (iv)	0.5	0.5		
							PK/PD (Non-species related) breakpoints (iv)	4	8		
CEPHALOTHIN 0.016 - 256 µg/mL	KF	Not available					Not available			<i>S. aureus</i>	ATCC® 29213 0.12-0.5
										<i>E. coli</i>	ATCC® 25922 4-16
										<i>S. pneumoniae</i>	ATCC® 49619 0.5-2
CHLORAMPHENICOL 0.016 - 256 µg/mL	C	Enterobacteriaceae	8		16	32	Enterobacteriaceae	8	8	<i>S. aureus</i>	ATCC® 29213 2-16
		<i>B. cepacia</i>	8		16	32	<i>Staphylococcus</i> spp.	8	8	<i>E. faecalis</i>	ATCC® 29212 4-16
		<i>S. maltophilia</i>	8		16	32	Streptococcus groups A, B, C and G	8	8	<i>E. coli</i>	ATCC® 25922 2-8
		Other non Enterobacteriaceae	8		16	32	<i>S. pneumoniae</i>	8	8	<i>H. influenzae</i>	ATCC® 49247 0.25-1
		<i>Staphylococcus</i> spp.	8		16	32	<i>H. influenzae</i>	2	2	<i>S. pneumoniae</i>	ATCC® 49619 2-8
		<i>Enterococcus</i> spp.	8		16	32	<i>M. catarrhalis</i>	2	2	<i>B. fragilis</i>	ATCC® 25285 4-16
		<i>Haemophilus</i> spp.	2		4	8	<i>N. meningitidis</i>	2	4	<i>B. thetaiotaomicron</i>	ATCC® 29741 8-32
		<i>S. pneumoniae</i>	4		-	8	Gram-positive anaerobes except <i>C. difficile</i>	8	8	<i>E. lenta</i>	ATCC® 43055 4-16
		<i>Streptococcus</i> spp. β-Hemolytic Group	4		8	16	Gram-negative anaerobes	8	8	<i>H. influenzae</i>	ATCC® 49766 0.25-1
		<i>Streptococcus</i> spp. Viridans Group	4		8	16					
		<i>N. meningitidis</i>	2		4	8					
		Anaerobes	8		16	32					

ANTIBIOTIC	CODE	CLSI INTERPRETATIVE CRITERIA ¹	S≤	SDD MIC µg/mL	I	R≥	EUCAST INTERPRETATIVE CRITERIA ²	S≤	R>	QUALITY CONTROL	MIC µg/mL
CIPROFLOXACIN 0.002 - 32 µg/mL	CIP	Enterobacteriaceae except <i>Salmonella</i> spp. <i>Salmonella</i> spp. <i>P. aeruginosa</i> <i>Acinterobacter</i> spp. Other non Enterobacteriaceae <i>Staphylococcus</i> spp. <i>Enterococcus</i> spp. <i>Haemophilus</i> spp. <i>N. gonorrhoeae</i> <i>N. meningitidis</i>	1 0.06 1 1 1 1 1 1 0.06 0.03	2 0.12-0.5 2 2 2 2 2 2 0.12-0.5 0.06	4 1 4 4 4 4 4 4 1 0.12	Enterobacteriaceae <i>Salmonella</i> spp. <i>Pseudomonas</i> spp. <i>Acinetobacter</i> spp. <i>Staphylococcus</i> spp. <i>Enterococcus</i> spp. <i>S. pneumoniae</i> <i>H. influenzae</i> <i>M. catarrhalis</i> <i>N. gonorrhoeae</i> <i>N. meningitidis</i> <i>P. multocida</i> <i>C. jejuni</i> and <i>coli</i> <i>Corynebacterium</i> spp. <i>Aerococcus sanguinicola</i> and <i>urinae</i> <i>Kingella kingae</i> PK/PD (Non-species related) breakpoints	0.25 0.06 0.5 1 1 4 0.12 0.06 0.5 0.03 0.03 0.06 0.5 1 2 0.06 0.25	0.5 0.06 0.5 1 1 4 2 0.06 0.5 0.03 0.03 0.06 0.5 1 2 0.06 0.5	<i>S. aureus</i> <i>E. faecalis</i> <i>E. coli</i> <i>P. aeruginosa</i> <i>H. influenzae</i> <i>N. gonorrhoeae</i> <i>H. influenzae</i>	ATCC® 29213 ATCC® 29212 ATCC® 25922 ATCC® 27853 ATCC® 49247 ATCC® 49226 ATCC® 49766	0.12-0.5 0.25-2 0.004-0.016 0.25-1 0.004-0.03 0.001-0.008 0.004-0.016
CLARITHROMYCIN 0.016 - 256 µg/mL	CLR	<i>Staphylococcus</i> spp. <i>H. influenzae</i> <i>S. pneumoniae</i> <i>Streptococcus</i> spp. β-Hemolytic Group <i>Streptococcus</i> spp. Viridans Group	2 8 0.25 0.25 0.25	4 16 0.5 0.5 0.5	8 32 1 1 1	<i>Staphylococcus</i> spp. <i>Streptococcus</i> groups A, B, C and G <i>S. pneumoniae</i> <i>H. influenzae</i> <i>M. catarrhalis</i> <i>H. pylori</i> <i>Kingella kingae</i>	1 0.25 0.25 1 0.25 0.25 0.5	2 0.5 0.5 32 0.5 0.5 0.5	<i>S. aureus</i> <i>H. influenzae</i> (-CO ₂) <i>H. influenzae</i> (+CO ₂) <i>S. pneumoniae</i> (-CO ₂) <i>S. pneumoniae</i> (+CO ₂)	ATCC® 29213 ATCC® 49247 ATCC® 49247 ATCC® 49619 ATCC® 49619	0.12-0.5 4-16 8-32 0.032-0.125 0.064-0.25
CLINDAMYCIN 0.016 - 256 µg/mL	CD	<i>Staphylococcus</i> spp. <i>S. pneumoniae</i> <i>Streptococcus</i> spp. β-Hemolytic Group <i>Streptococcus</i> spp. Viridans Group Anaerobes	0.5 0.25 0.25 0.25 2	1-2 0.5 0.5 0.5 4	4 1 1 1 8	<i>Staphylococcus</i> spp. <i>Streptococcus</i> groups A, B, C and G <i>S. pneumoniae</i> Viridans group streptococci Gram-positive anaerobes except <i>C. difficile</i> Gram-negative anaerobes <i>Corynebacterium</i> spp.	0.25 0.5 0.5 0.5 4 4 0.5	0.5 0.5 0.5 0.5 4 4 0.5	<i>S. aureus</i> <i>E. faecalis</i> <i>S. pneumoniae</i> (-CO ₂) <i>S. pneumoniae</i> (+CO ₂) <i>B. fragilis</i> <i>B. thetaiotaomicron</i> <i>E. lenta</i>	ATCC® 29213 ATCC® 29212 ATCC® 49619 ATCC® 49619 ATCC® 25285 ATCC® 29741 ATCC® 43055	0.06-0.25 4-16 0.032-0.125 0.064-0.25 0.5-2 2-8 0.06-0.25
COLISTIN 0.016 - 256 µg/mL 0.064 - 1024 µg/mL	CS	<i>P. aeruginosa</i> <i>Acinetobacter</i> spp.	2 2	- -	4 4	Enterobacteriaceae <i>Pseudomonas</i> spp. <i>Acinetobacter</i> spp.	2 2 2	2 2 2	<i>E. coli</i> <i>P. aeruginosa</i>	ATCC® 25922 ATCC® 27853	0.25-2 0.5-4
DALBAVANCIN 0.002 - 32 µg/mL	DAL	Not available				<i>Staphylococcus</i> spp.	0.12	0.12	<i>S. aureus</i> <i>E. faecalis</i> <i>S. pneumoniae</i>	ATCC® 29213 ATCC® 29212 ATCC® 49619	0.03-0.12 0.03-0.12 0.008-0.03
DAPTOMYCIN 0.016 - 256 µg/mL	DAP	<i>Staphylococcus</i> spp. <i>Enterococcus</i> spp. <i>Streptococcus</i> spp. β-Hemolytic Group <i>Streptococcus</i> spp. Viridans Group	1 4 1 1	- - - -	- - - -	<i>Staphylococcus</i> spp. <i>Streptococcus</i> groups A, B, C and G	1 1	1 1	<i>S. aureus</i> <i>E. faecalis</i> <i>S. pneumoniae</i>	ATCC® 29213 ATCC® 29212 ATCC® 49619	0.12-1 1-4 0.06-0.5

ANTIBIOTIC	CODE	CLSI INTERPRETATIVE CRITERIA ¹	S≤	SDD MIC µg/mL	I	R≥	EUCAST INTERPRETATIVE CRITERIA ²	S≤	R>	QUALITY CONTROL	MIC µg/mL
DORIPENEM 0.002 - 32 µg/mL	DOR	Enterobacteriaceae	1		2	4	Enterobacteriaceae	1	2	<i>S. aureus</i>	ATCC® 29213 0.016-0.06
		<i>P. aeruginosa</i>	2		4	8	<i>Pseudomonas</i> spp.	1	2	<i>E. faecalis</i>	ATCC® 29212 1-4
		<i>Acinetobacter</i> spp.	2		4	8	<i>Acinetobacter</i> spp.	1	2	<i>E. coli</i>	ATCC® 25922 0.016-0.06
		<i>Staphylococcus</i> spp.	0.5		-	-	<i>S. pneumoniae</i>	1	1	<i>P. aeruginosa</i>	ATCC® 27853 0.12-0.5
		<i>Haemophilus</i> spp.	1		-	-	Viridans group streptococci	1	1	<i>H. influenzae</i>	ATCC® 49766 0.06-0.25
		<i>S. pneumoniae</i>	1		-	-	<i>H. influenzae</i>	1	1	<i>S. pneumoniae</i>	ATCC® 49619 0.03-0.12
		<i>Streptococcus</i> spp. β-Hemolytic Group	0.12		-	-	<i>M. catarrhalis</i>	1	1	<i>B. fragilis</i>	ATCC® 25285 0.12-0.5
		<i>Streptococcus</i> spp. Viridans Group	1		-	-	Gram-positive anaerobes except <i>C. difficile</i>	1	1	<i>B. thetaiotaomicron</i>	ATCC® 29741 0.12-1
		Anaerobes	2		4	8	Gram-negative anaerobes	1	1		
							PK/PD (Non-species related) breakpoints	1	2		
DOXYCYCLINE 0.016 - 256 µg/mL	DXT	Enterobacteriaceae	4		8	16	<i>Staphylococcus</i> spp.	1	2	<i>S. aureus</i>	ATCC® 29213 0.12-0.5
		<i>Acinetobacter</i> spp.	4		8	16	Streptococcus groups A, B, C and G	1	2	<i>E. faecalis</i>	ATCC® 29212 2-8
		Other Non-Enterobacteriaceae	4		8	16	<i>S. pneumoniae</i>	1	2	<i>E. coli</i>	ATCC® 25922 0.5-2
		<i>Staphylococcus</i> spp.	4		8	16	<i>H. influenzae</i>	1	2	<i>S. pneumoniae</i>	ATCC® 49619 0.016-0.12
		<i>Enterococcus</i> spp.	4		8	16	<i>M. catarrhalis</i>	1	2	<i>B. thetaiotaomicron</i>	ATCC® 29741 2-8
		<i>S. pneumoniae</i>	0.25		0.5	1	<i>P. multocida</i>	1	1	<i>E. lenta</i>	ATCC® 43055 2-16
ENROFLOXACIN 0.002 - 32 µg/mL	ENR	Refer to CLSI VET01S					Not available				<i>H. influenzae</i> ATCC® 49766 0.25-1
ERTAPENEM 0.002 - 32 µg/mL	ETP	Enterobacteriaceae	0.5		1	2	Enterobacteriaceae	0.5	1	<i>S. aureus</i>	ATCC® 29213 0.06-0.25
		<i>Staphylococcus</i> spp.	2		4	8	<i>S. pneumoniae</i>	0.5	0.5	<i>E. faecalis</i>	ATCC® 29212 4-16
		<i>Haemophilus</i> spp.	0.5		-	-	Viridans group streptococci	0.5	0.5	<i>E. coli</i>	ATCC® 25922 0.004-0.016
		<i>S. pneumoniae</i>	1		2	4	<i>H. influenzae</i>	0.5	0.5	<i>P. aeruginosa</i>	ATCC® 27853 2-8
		<i>Streptococcus</i> spp. β-Hemolytic Group	1		-	-	<i>M. catarrhalis</i>	0.5	0.5	<i>H. influenzae</i>	ATCC® 49766 0.016-0.06
		<i>Streptococcus</i> spp. Viridans Group	1		-	-	Gram-positive anaerobes except <i>C. difficile</i>	1	1	<i>S. pneumoniae</i>	ATCC® 49619 0.03-0.25
		Anaerobes	4		8	16	Gram-negative anaerobes	1	1	<i>B. fragilis</i>	ATCC® 25285 0.06-0.5
							PK/PD (Non-species related) breakpoints	0.5	1	<i>B. thetaiotaomicron</i>	ATCC® 29741 0.5-2
										<i>E. lenta</i>	ATCC® 43055 0.5-4
ERYTHROMYCIN 0.016 - 256 µg/mL	E	<i>Staphylococcus</i> spp.	0.5		1-4	8	<i>Staphylococcus</i> spp.	1	2	<i>S. aureus</i>	ATCC® 29213 0.25-1
		<i>Enterococcus</i> spp.	0.5		1-4	8	Streptococcus groups A, B, C and G	0.25	0.5	<i>E. faecalis</i>	ATCC® 29212 1-4
		<i>S. pneumoniae</i>	0.25		0.5	1	<i>S. pneumoniae</i>	0.25	0.5	<i>S. pneumoniae</i> (-CO ₂)	ATCC® 49619 0.032-0.125
		<i>Streptococcus</i> spp. β-Hemolytic Group	0.25		0.5	1	<i>H. influenzae</i>	0.5	16	<i>S. pneumoniae</i> (+CO ₂)	ATCC® 49619 0.064-0.25
		<i>Streptococcus</i> spp. Viridans Group	0.25		0.5	1	<i>M. catarrhalis</i>	0.25	0.5		
							<i>L. monocytogenes</i>	1	1		
							<i>C. jejuni</i>	4	4		
							<i>C. coli</i>	8	8		
FLORFENICOL 0.016 - 256 µg/mL	FFC	Refer to CLSI VET01S					Not available				<i>Kingella kingae</i> 0.5 0.5
FOSFOMYCIN 0.016 - 256 µg/mL 0.064 - 1024 µg/mL	FOS	Enterobacteriaceae	64		128	256	Enterobacteriaceae	32	32	<i>S. aureus</i>	ATCC® 29213 0.5-4
		<i>Enterococcus</i> spp.	64		128	256	<i>Staphylococcus</i> spp. (iv)	32	32	<i>E. faecalis</i>	ATCC® 29212 32-128
										<i>E. coli</i>	ATCC® 25922 0.5-2
										<i>P. aeruginosa</i>	ATCC® 27853 2-8
FUSIDIC ACID 0.016 - 256 µg/mL	FU	Not available					<i>Staphylococcus</i> spp.				<i>S. aureus</i> 1 1 <i>S. pneumoniae</i> ATCC® 49619 4-32

ANTIBIOTIC	CODE	CLSI INTERPRETATIVE CRITERIA ¹	S≤	SDD MIC µg/mL	I	R≥	EUCAST INTERPRETATIVE CRITERIA ²	S≤	R>	QUALITY CONTROL	MIC µg/mL
GATIFLOXACIN 0.002 - 32 µg/mL	GAT	Enterobacteriaceae	2		4	8	Not available			<i>S. aureus</i>	ATCC® 29213 0.03-0.12
		<i>P. aeruginosa</i>	2		4	8				<i>E. faecalis</i>	ATCC® 29212 0.12-1
		<i>Acinetobacter</i> spp.	2		4	8				<i>E. coli</i>	ATCC® 25922 0.008-0.03
		Other Non-Enterobacteriaceae	2		4	8				<i>P. aeruginosa</i>	ATCC® 27853 0.5-2
		<i>Staphylococcus</i> spp.	0.5		1	2				<i>H. influenzae</i>	ATCC® 49766 0.004-0.03
		<i>Enterococcus</i> spp.	2		4	8				<i>S. pneumoniae</i>	ATCC® 49619 0.12-0.5
		<i>Haemophilus</i> spp.	1		-	-				<i>N. gonorrhoeae</i>	ATCC® 49226 0.002-0.016
		<i>N. gonorrhoeae</i>	0.125		0.25	0.5					
		<i>S. pneumoniae</i>	1		2	4					
		<i>Streptococcus</i> spp. β-Hemolytic Group	1		2	4					
		<i>Streptococcus</i> spp. Viridans Group	1		2	4					
GEMIFLOXACIN 0.002 - 32 µg/mL	GEM	Enterobacteriaceae	0.25		0.5	1	Not available			<i>S. aureus</i>	ATCC® 29213 0.008-0.03
		<i>Haemophilus</i> spp.	0.12		-					<i>E. faecalis</i>	ATCC® 29212 0.016-0.12
		<i>S. pneumoniae</i>	0.12		0.25	0.5				<i>E. coli</i>	ATCC® 25922 0.004-0.016
GENTAMICIN 0.016 - 256 µg/mL 0.064 - 1024 µg/mL	CN	Enterobacteriaceae	4		8	16	Enterobacteriaceae <i>Pseudomonas</i> spp. <i>Acinetobacter</i> spp. <i>S. aureus</i> Coagulase-negative Staphylococci <i>Corynebacterium</i> spp. PK/PD (Non-species related) breakpoints <i>Enterococcus</i> spp. (test for high-level gentamicin resistance)	2	4	<i>S. aureus</i>	ATCC® 29213 0.12-1
		<i>P. aeruginosa</i>	4		8	16		4	4	<i>E. faecalis</i>	ATCC® 29212 4-16
		<i>Acinetobacter</i> spp.	4		8	16		4	4	<i>E. coli</i>	ATCC® 25922 0.25-1
		Other Non-Enterobacteriaceae	4		8	16		1	1	<i>P. aeruginosa</i>	ATCC® 27853 0.5-2
		<i>Staphylococcus</i> spp.	4		8	16		1	1	HLAR	
		<i>Enterococcus</i> spp. (screening test for HLAR)	500		-	500		1	1	<i>E. faecalis</i>	ATCC® 29212 ≤ 500
								2	4	<i>E. faecalis</i>	ATCC® 51299 > 500
IMIPENEM 0.002 - 32 µg/mL	IMI	Enterobacteriaceae	1		2	4	Enterobacteriaceae <i>Pseudomonas</i> spp. <i>Acinetobacter</i> spp. <i>Enterococcus</i> spp. <i>S. pneumoniae</i> Viridans group streptococci <i>H. influenzae</i> <i>M. catarrhalis</i> Gram-positive anaerobes except <i>C. difficile</i> Gram-negative anaerobes PK/PD (Non-species related) breakpoints	2	8	<i>S. aureus</i>	ATCC® 29213 0.016-0.06
		<i>P. aeruginosa</i>	2		4	8		4	8	<i>E. faecalis</i>	ATCC® 29212 0.5-2
		<i>Acinetobacter</i> spp.	2		4	8		2	8	<i>E. coli</i>	ATCC® 25922 0.06-0.25
		Other Non-Enterobacteriaceae	4		8	16		4	8	<i>P. aeruginosa</i>	ATCC® 27853 1-4
		<i>Staphylococcus</i> spp.	4		8	16		2	2	<i>H. influenzae</i>	ATCC® 49766 0.25-1
		<i>Haemophilus</i> spp.	4		-	-		2	2	<i>S. pneumoniae</i>	ATCC® 49619 0.03-0.12
		<i>S. pneumoniae</i>	0.12		0.25-0.5	1		2	2	<i>B. fragilis</i>	ATCC® 25285 0.03-0.25
		Anaerobes	4		8	16		2	2	<i>B. thetaiotaomicron</i>	ATCC® 29741 0.25-1
								2	8	<i>E. lenta</i>	ATCC® 43055 0.25-2
KANAMYCIN 0.016 - 256 µg/mL	K	Enterobacteriaceae	16		32	64	Not available			<i>S. aureus</i>	ATCC® 29213 1-4
		<i>Staphylococcus</i> spp.	16		32	64				<i>E. faecalis</i>	ATCC® 29212 16-64
										<i>E. coli</i>	ATCC® 25922 1-4

ANTIBIOTIC	CODE	CLSI INTERPRETATIVE CRITERIA ¹	S≤	SDD MIC µg/mL	I	R≥	EUCAST INTERPRETATIVE CRITERIA ²	S≤	R>	QUALITY CONTROL	MIC µg/mL
LEVOFLOXACIN 0.002 - 32 µg/mL	LEV	Enterobacteriaceae	0.12	0.25-1	2		Enterobacteriaceae	0.5	1	<i>S. aureus</i> ATCC® 29213	0.06-0.5
		<i>P. aeruginosa</i>	2	4	8		<i>Pseudomonas</i> spp.	1	1	<i>E. faecalis</i> ATCC® 29212	0.25-2
		<i>Acinetobacter</i> spp.	2	4	8		<i>Acinetobacter</i> spp.	0.5	1	<i>E. coli</i> ATCC® 25922	0.008-0.06
		<i>B. cepacia</i>	2	4	8		<i>Staphylococcus</i> spp.	1	1	<i>P. aeruginosa</i> ATCC® 27853	0.5-4
		<i>S. maltophilia</i>	2	4	8		<i>Enterococcus</i> spp.	4	4	<i>H. influenzae</i> ATCC® 49247	0.008-0.03
		Other Non-Enterobacteriaceae	2	4	8		<i>Streptococcus</i> groups A, B, C and G	2	2	<i>S. pneumoniae</i> ATCC® 49619	0.5-2
		<i>Staphylococcus</i> spp.	1	2	4		<i>S. pneumoniae</i>	2	2	<i>H. influenzae</i> ATCC® 49766	0.008-0.03
		<i>Enterococcus</i> spp.	2	4	8		<i>H. influenzae</i>	0.06	0.06		
		<i>Haemophilus</i> spp.	2	-	-		<i>M. catarrhalis</i>	1	1		
		<i>S. pneumoniae</i>	2	4	8		<i>H. pylori</i>	1	1		
		<i>Streptococcus</i> spp. β-Hemolytic	2	4	8		<i>P. multocida</i>	0.06	0.06		
LINEZOLID 0.016 - 256 µg/mL	LNZ	Group					<i>Aerococcus sanguinicola</i> and <i>urinae</i>	2	2		
		<i>Streptococcus</i> spp. Viridans	2	4	8		<i>Kingella kingae</i>	0.125	0.125		
		Group					PK/PD (Non-species related)	0.5	1		
		<i>N. meningitidis</i>	0.03	0.06	0.12		breakpoints				
		<i>Staphylococcus</i> spp.	4	-	8		<i>Staphylococcus</i> spp.	4	4	<i>S. aureus</i> ATCC® 29213	1-4
		<i>Enterococcus</i> spp.	2	4	8		<i>Enterococcus</i> spp.	4	4	<i>E. faecalis</i> ATCC® 29212	1-4
MARBOFLOXACIN 0.002 - 32 µg/mL	MAR	Refer to CLSI VET01S			Not available			<i>S. pneumoniae</i> ATCC® 49619	0.25-2		
								<i>E. coli</i> ATCC® 25922	0.25-2		
MECILLINAM 0.016 - 256 µg/mL	MEC	Enterobacteriaceae	8	16	32		<i>S. pneumoniae</i>	0.125	0.125	<i>P. aeruginosa</i> ATCC® 27853	0.5-2
		<i>P. aeruginosa</i>	2	4	8		<i>E. coli</i>	ATCC® 43055	0.5-2		
		<i>Acinetobacter</i> spp.	2	4	8		<i>H. influenzae</i>	ATCC® 49766	0.03-0.12		
		<i>B. cepacia</i>	4	8	16		<i>P. aeruginosa</i>	ATCC® 27853	0.12-1		
		Other Non-Enterobacteriaceae	4	8	16		<i>H. influenzae</i>	ATCC® 49766	0.03-0.12		
		<i>Staphylococcus</i> spp.	4	8	16		<i>S. pneumoniae</i>	ATCC® 49619	0.03-0.25		
		<i>Haemophilus</i> spp.	0.5	-	-		<i>Viridans group streptococci</i>	ATCC® 25285	0.03-0.25		
		<i>S. pneumoniae</i>	0.25	0.5	1		<i>B. fragilis</i>	ATCC® 29741	0.06-0.5		
		<i>Streptococcus</i> spp. β-Hemolytic	0.5	-	-		<i>B. thetaiotaomicron</i>	ATCC® 43055	0.125-1		
		Group					<i>E. lenta</i>				
		<i>Streptococcus</i> spp. Viridans	0.5	-	-						
		Group									
MEROPENEM 0.002 - 32 µg/mL 0.016 - 256 µg/mL	MRP	<i>N. meningitidis</i>	0.25	-	-						
		Anaerobes	4	8	16						
		Enterobacteriaceae	1	2	4		<i>Enterobacteriaceae</i>	2	8	<i>S. aureus</i> ATCC® 29213	0.03-0.12
		<i>P. aeruginosa</i>	2	4	8		<i>Pseudomonas</i> spp.	2	8	<i>E. faecalis</i> ATCC® 29212	2-8
		<i>Acinetobacter</i> spp.	2	4	8		<i>Acinetobacter</i> spp.	2	8	<i>E. coli</i> ATCC® 25922	0.008-0.06
		<i>B. cepacia</i>	4	8	16		<i>S. pneumoniae</i> (infections other than meningitis)	2	2	<i>P. aeruginosa</i> ATCC® 27853	0.12-1
		Other Non-Enterobacteriaceae	4	8	16		<i>S. pneumoniae</i> (meningitis)	0.25	1	<i>S. pneumoniae</i> ATCC® 49619	0.03-0.25
		<i>Staphylococcus</i> spp.	4	8	16		<i>Viridans group streptococci</i>	2	2	<i>B. fragilis</i> ATCC® 25285	0.03-0.25
		<i>Haemophilus</i> spp.	0.5	-	-		<i>H. influenzae</i> (infections other than meningitis)	2	2	<i>B. thetaiotaomicron</i> ATCC® 29741	0.06-0.5
		<i>S. pneumoniae</i>	0.25	0.5	1		<i>E. lenta</i>	ATCC® 43055	0.125-1		
METRONIDAZOLE 0.016 - 256 µg/mL	MTZ	Anaerobes			Gram-positive anaerobes except <i>C. difficile</i>			<i>B. fragilis</i>	ATCC® 25285	0.25-2	
								<i>B. thetaiotaomicron</i>	ATCC® 29741	0.5-4	
								<i>E. lenta</i>	ATCC® 43055	0.125-0.5	

ANTIBIOTIC	CODE	CLSI INTERPRETATIVE CRITERIA ¹	S≤	SDD MIC µg/mL	I	R≥	EUCAST INTERPRETATIVE CRITERIA ²	S≤	R>	QUALITY CONTROL	MIC µg/mL
MINOCYCLINE 0.016 - 256 µg/mL	MN	Enterobacteriaceae	4		8	16	<i>Staphylococcus</i> spp.	0.5	1	<i>S. aureus</i>	ATCC® 29213 0.06-0.5
		<i>Acinetobacter</i> spp.	4		8	16	<i>Streptococcus</i> groups A, B, C and G	0.5	1	<i>E. faecalis</i>	ATCC® 29212 1-4
		<i>B. cepacia</i>	4		8	16	<i>S. pneumoniae</i>	0.5	1	<i>E. coli</i>	ATCC® 25922 0.25-1
		<i>S. maltophilia</i>	4		8	16	<i>H. influenzae</i>	1	2	<i>H. influenzae</i>	ATCC® 49766 0.125-0.5
		Other Non-Enterobacteriaceae	4		8	16	<i>M. catarrhalis</i>	1	2		
		<i>Staphylococcus</i> spp.	4		8	16	<i>N. gonorrhoeae</i>	0.5	1		
		<i>Enterococcus</i> spp.	4		8	16	<i>N. meningitidis</i>	1	2		
		<i>N. meningitidis</i>	2		-	-					
MOXIFLOXACIN 0.002 - 32 µg/mL	MXF	<i>Staphylococcus</i> spp.	0.5		1	2	Enterobacteriaceae	0.25	0.25	<i>S. aureus</i>	ATCC® 29213 0.016-0.12
		<i>Haemophilus</i> spp.	1		-	-	<i>Staphylococcus</i> spp.	0.25	0.25	<i>E. faecalis</i>	ATCC® 29212 0.06-0.5
		<i>S. pneumoniae</i>	1		2	4	<i>Streptococcus</i> groups A, B, C and G	0.5	0.5	<i>E. coli</i>	ATCC® 25922 0.008-0.06
		Anaerobes	2		4	8	<i>S. pneumoniae</i>	0.5	0.5	<i>P. aeruginosa</i>	ATCC® 27853 1-8
							<i>H. influenzae</i>	0.125	0.125	<i>H. influenzae</i>	ATCC® 49247 0.008-0.03
							<i>M. catarrhalis</i>	0.5	0.5	<i>S. pneumoniae</i>	ATCC® 49619 0.06-0.25
							<i>Corynebacterium</i> spp.	0.5	0.5	<i>N. gonorrhoeae</i>	ATCC® 49226 0.008-0.03
							PK/PD (Non-species related) breakpoints	0.25	0.25	<i>B. fragilis</i>	ATCC® 25285 0.12-0.5
										<i>B. thetaiotaomicron</i>	ATCC® 29741 1-8
MUPIROCIN 0.064 - 1024 µg/mL	MUP	<i>S. aureus</i> (screening test for HLMR)	256		-	256	<i>Staphylococcus</i> spp.	1	256	<i>E. aureus</i> (mupA negative)	ATCC® 29213 0.06-0.5
										<i>E. faecalis</i> (mupA negative)	ATCC® 29212 16-128
										<i>S. aureus</i> (mupA positive)	ATCC® BAA 1708 > 256
NALIDIXIC ACID 0.016 - 256 µg/mL	NA	Enterobacteriaceae	16		-	32	Not available			<i>E. coli</i>	ATCC® 25922 1-4
NETILMICIN 0.016 - 256 µg/mL	NET	Enterobacteriaceae	8		16	32	Enterobacteriaceae	2	4	<i>S. aureus</i>	ATCC® 29213 ≤ 0.25
		<i>P. aeruginosa</i>	8		16	32	<i>Pseudomonas</i> spp.	4	4	<i>E. faecalis</i>	ATCC® 29212 4-16
		<i>Acinetobacter</i> spp.	8		16	32	<i>Acinetobacter</i> spp.	4	4	<i>E. coli</i>	ATCC® 25922 ≤ 0.5-1
		Other Non-Enterobacteriaceae	8		16	32	<i>S. aureus</i>	1	1	<i>P. aeruginosa</i>	ATCC® 27853 0.5-8
		<i>Staphylococcus</i> spp.	8		16	32	Coagulase-negative Staphylococci	1	1		
NITROFURANTOIN 0.032 - 512 µg/mL	F	Enterobacteriaceae	32		64	128	PK/PD (Non-species related) breakpoints	2	4		
		<i>Staphylococcus</i> spp.	32		64	128	Enterobacteriaceae	64	64	<i>S. aureus</i>	ATCC® 29213 8-32
		<i>Enterococcus</i> spp.	32		64	128	<i>Staphylococcus</i> spp.	64	64	<i>E. faecalis</i>	ATCC® 29212 4-16
							<i>Enterococcus</i> spp.	64	64	<i>E. coli</i>	ATCC® 25922 4-16
							<i>Streptococcus</i> groups A, B, C and G	64	64	<i>S. pneumoniae</i>	ATCC® 49619 4-16
NORFLOXACIN 0.016 - 256 µg/mL	NOR	Enterobacteriaceae	4		8	16	<i>Aerococcus sanguinicola</i> and <i>urinae</i>	16	16		
		<i>P. aeruginosa</i>	4		8	16	Enterobacteriaceae	0.5	1	<i>S. aureus</i>	ATCC® 29213 0.5-2
		Other Non-Enterobacteriaceae	4		8	16				<i>E. faecalis</i>	ATCC® 29212 2-8
		<i>Staphylococcus</i> spp.	4		8	16				<i>E. coli</i>	ATCC® 25922 0.03-0.12
		<i>Enterococcus</i> spp.	4		8	16				<i>P. aeruginosa</i>	ATCC® 27853 1-4
OFLOXACIN 0.002 - 32 µg/mL	OFX	Enterobacteriaceae	0.12		0.25-1	2	Enterobacteriaceae	0.25	0.5	<i>S. aureus</i>	ATCC® 29213 0.12-1
		<i>P. aeruginosa</i>	2		4	8	<i>Staphylococcus</i> spp.	1	1	<i>E. faecalis</i>	ATCC® 29212 1-4
		Other Non-Enterobacteriaceae	2		4	8	<i>S. pneumoniae</i>	0.12	4	<i>E. coli</i>	ATCC® 25922 0.016-0.12
		<i>Staphylococcus</i> spp.	1		2	4	<i>H. influenzae</i>	0.06	0.06	<i>P. aeruginosa</i>	ATCC® 27853 1-8
		<i>Haemophilus</i> spp.	2		-	-	<i>M. catarrhalis</i>	0.5	0.5	<i>H. influenzae</i>	ATCC® 49247 0.016-0.06
		<i>N. gonorrhoeae</i>	0.25		0.5-1	2	<i>N. gonorrhoeae</i>	0.12	0.25	<i>S. pneumoniae</i>	ATCC® 49619 1-4
		<i>S. pneumoniae</i>	2		4	8	PK/PD (Non-species related) breakpoints	0.25	0.5	<i>N. gonorrhoeae</i>	ATCC® 49226 0.004-0.016
		<i>Streptococcus</i> spp. β-Hemolytic Group	2		4	8				<i>H. influenzae</i>	ATCC® 49766 0.016-0.06
		<i>Streptococcus</i> spp. Viridans Group	2		4	8					

ANTIBIOTIC	CODE	CLSI INTERPRETATIVE CRITERIA ¹	S≤ MIC µg/mL	SDD MIC µg/mL	I	R≥	EUCAST INTERPRETATIVE CRITERIA ²	S≤ MIC µg/mL	R>	QUALITY CONTROL	MIC µg/mL
OXACILLIN 0.016 - 256 µg/mL	OX	<i>S. aureus</i> and <i>S. lugdunensis</i> Coagulase-negative Staphylococci except <i>S. lugdunensis</i> and <i>S. pseudintermedius</i> <i>S. pseudintermedius</i>	2 0.25	-	4 0.5		<i>S. aureus</i> and <i>S. lugdunensis</i> Coagulase-negative Staphylococci (Methicillin/Oxacillin Resistant Staphylococci)	2 0.25	2 0.25	<i>S. aureus</i> <i>E. faecalis</i>	ATCC® 29213 ATCC® 29212
PENICILLIN G 0.002 - 32 µg/mL or 0.016 - 256 µg/mL	P	<i>Staphylococcus</i> spp. <i>Enterococcus</i> spp. <i>N. gonorrhoeae</i> <i>S. pneumoniae</i> parenteral (nonmeningitis) <i>S. pneumoniae</i> parenteral (meningitis) <i>S. pneumoniae</i> oral <i>Streptococcus</i> spp. β-Hemolytic Group <i>Streptococcus</i> spp. Viridans Group <i>N. meningitidis</i> Anaerobes	0.12 8 0.06 2 0.06 0.06 0.06 0.12 0.12 0.12 0.06 0.5	- - 0.12-1 4 - 0.12-1 2 - 0.25-2 1	0.25 16 2 8 0.12 0.12 0.25 1 4 2 0.25 0.5 0.25 0.12 0.12 0.03 1 0.5 0.25		<i>S. aureus</i> <i>Streptococcus</i> groups A, B, C and G <i>S. pneumoniae</i> (infections other than meningitis) <i>S. pneumoniae</i> (meningitis) Viridans group streptococci <i>N. gonorrhoeae</i> <i>N. meningitidis</i> Gram-positive anaerobes except <i>C.</i> <i>difficile</i> Gram-negative anaerobes <i>Corynebacterium</i> spp. <i>Aerococcus sanguinicola</i> and <i>urinae</i> <i>Kingella kingae</i> <i>L. monocytogenes</i> <i>P. multocida</i> PK/PD (Non-species related) breakpoints	0.12 0.25 0.06 0.06 0.06 0.25 0.25 0.25 0.12 0.12 0.03 0.03 0.5 0.5 0.25	0.12 0.25 2 1 0.25 0.5 0.5 0.12 0.12 0.03 0.03 0.5 0.5 2	<i>S. aureus</i> <i>E. faecalis</i> <i>S. pneumoniae</i> <i>N. gonorrhoeae</i> <i>B. fragilis</i> <i>B. thetaiotaomicron</i>	ATCC® 29213 ATCC® 29212 ATCC® 49619 ATCC® 49226 ATCC® 25285 ATCC® 29741
PIPERACILLIN 0.016 - 256 µg/mL	PIP	Enterobacteriaceae <i>P. aeruginosa</i> <i>Acinetobacter</i> spp. Other Non-Enterobacteriaceae Anaerobes	16 16 16 16 32	32-64 32-64 32-64 32-64 64	128 128 128 128 128		Enterobacteriaceae <i>Pseudomonas</i> spp. Gram-positive anaerobes except <i>C.</i> <i>difficile</i> Gram-negative anaerobes PK/PD (Non-species related) breakpoints	8 16 8 16 16 4	16 16 16 16 16 16	<i>S. aureus</i> <i>E. faecalis</i> <i>E. coli</i> <i>P. aeruginosa</i> <i>E. coli</i> <i>B. fragilis</i> <i>B. thetaiotaomicron</i> <i>E. lenta</i>	ATCC® 29213 ATCC® 29212 ATCC® 25922 ATCC® 27853 ATCC® 35218 ATCC® 25285 ATCC® 29741 ATCC® 43055
PIPERACILLIN*- TAZOBACTAM (4 µg/mL) 0.016 - 256 * µg/mL	TZP	Enterobacteriaceae <i>P. aeruginosa</i> <i>Acinetobacter</i> spp. Other Non-Enterobacteriaceae <i>Haemophilus</i> spp. Anaerobes	16 16 16 16 1 32	32-64 32-64 32-64 32-64 - 64	128 128 128 128 2 128		Enterobacteriaceae <i>Pseudomonas</i> spp. Gram-positive anaerobes except <i>C.</i> <i>difficile</i> Gram-negative anaerobes PK/PD (Non-species related) breakpoints	8 16 8 16 8 4	16 16 16 16 16 16	<i>S. aureus</i> <i>E. faecalis</i> <i>E. coli</i> <i>P. aeruginosa</i> <i>E. coli</i> <i>K. pneumoniae</i> <i>H. influenzae</i> <i>B. fragilis</i> <i>B. thetaiotaomicron</i> <i>E. lenta</i>	ATCC® 29213 ATCC® 29212 ATCC® 25922 ATCC® 27853 ATCC® 35218 ATCC® 700603 ATCC® 49247 ATCC® 25285 ATCC® 29741 ATCC® 43055
POLYMYXIN B 0.064 - 1024 µg/mL	PB	<i>P. aeruginosa</i> <i>Acinetobacter</i> spp.	2 2	4 -	8 4		Not available			<i>E. coli</i> <i>P. aeruginosa</i>	ATCC® 25922 ATCC® 27853
QUINUPRISTIN-DALFOPRISTIN 0.002 - 32 µg/mL	QDA	<i>Staphylococcus</i> spp. <i>Enterococcus</i> spp. <i>S. pneumoniae</i> <i>Streptococcus</i> spp. β-Hemolytic Group <i>Streptococcus</i> spp. Viridans Group	1 1 1 1 1	2 2 2 2 2	4 4 4 4 4		<i>Staphylococcus</i> spp. <i>Enterococcus</i> spp.	1 1	2 4	<i>S. aureus</i> <i>E. faecalis</i> <i>H. influenzae</i> <i>S. pneumoniae</i>	ATCC® 29213 ATCC® 29212 ATCC® 49247 ATCC® 49619

ANTIBIOTIC	CODE	CLSI INTERPRETATIVE CRITERIA ¹	S≤	SDD	I	R≥	EUCAST INTERPRETATIVE CRITERIA ²	S≤	R>	QUALITY CONTROL	MIC µg/mL
			MIC µg/mL					MIC µg/mL			
RIFAMPICIN 0.002 - 32 µg/mL 0.016 - 256 µg/mL	RD	<i>Staphylococcus</i> spp.	1		2	4	<i>Staphylococcus</i> spp.	0.06	0.5	<i>S. aureus</i>	ATCC® 29213 0.004-0.016
		<i>Enterococcus</i> spp.	1		2	4	<i>Streptococcus</i> groups A, B, C and G	0.06	0.5	<i>E. faecalis</i>	ATCC® 29212 0.5-4
		<i>Haemophilus</i> spp.	1		2	4	<i>S. pneumoniae</i>	0.06	0.5	<i>E. coli</i>	ATCC® 25922 4-16
		<i>S. pneumoniae</i>	1		2	4	<i>H. influenzae</i>	1	1	<i>P. aeruginosa</i>	ATCC® 27853 16-64
		<i>N. meningitidis</i>	0.5		1	2	<i>N. meningitidis</i>	0.25	0.25	<i>H. influenzae</i>	ATCC® 49247 0.25-1
							<i>H. pylori</i>	1	1	<i>S. pneumoniae</i>	ATCC® 49619 0.016-0.06
							<i>Corynebacterium</i> spp.	0.06	0.5	<i>H. influenzae</i>	ATCC® 49766 0.25-1
							<i>Aerococcus sanguinicola</i> and <i>urinae</i>	0.12	0.12		
							<i>Kingella kingae</i>	0.5	0.5		
SOLITHROMYCIN 0.002 - 32 µg/mL	SOL	Not available				Not available				<i>S. aureus</i>	ATCC® 29213 0.03-0.12
										<i>E. faecalis</i>	ATCC® 29212 0.016-0.06
										<i>H. influenzae</i>	ATCC® 49247 1-4
										<i>S. pneumoniae</i>	ATCC® 49619 0.004-0.016
SPECTINOMYCIN 0.064 - 1024 µg/mL	SPC	<i>N. gonorrhoeae</i>	32		64	128	<i>N. gonorrhoeae</i>	64	64	<i>N. gonorrhoeae</i>	ATCC® 49226 8-32
STREPTOMYCIN 0.016 - 256 µg/mL 0.064 - 1024 µg/mL	S	<i>Enterococcus</i> spp. (screening test for HLAR)	500	-	1000		<i>Enterococcus</i> spp. (test for high-level streptomycin resistance)	512	512	HLAR	
										<i>E. faecalis</i>	ATCC® 29212 < 500
										<i>E. faecalis</i>	ATCC® 51299 ≥ 1000
TEICOPLANIN 0.016 - 256 µg/mL	TEC	<i>Staphylococcus</i> spp.	8		16	32	<i>S. aureus</i>	2	2	<i>S. aureus</i>	ATCC® 29213 0.25-1
		<i>Enterococcus</i> spp.	8		16	32	Coagulase-negative staphylococci	4	4	<i>E. faecalis</i>	ATCC® 29212 0.25-1
							<i>Enterococcus</i> spp.	2	2		
							<i>Streptococcus</i> groups A, B, C and G	2	2		
							<i>S. pneumoniae</i>	2	2		
							Viridans group streptococci	2	2		
TEDIZOLID 0.002 - 32 µg/mL	TZD	<i>S. aureus</i> (including MRSA)	0.5		1	2	<i>Staphylococcus</i> spp.	0.5	0.5	<i>S. aureus</i>	ATCC® 29213 0.12-1
		<i>E. faecalis</i>	0.25	-	-		<i>Streptococcus</i> groups A, B, C and G	0.5	0.5	<i>E. faecalis</i>	ATCC® 29212 0.25-1
		<i>S. pyogenes</i> and <i>S. agalactiae</i>	0.5	-	-		<i>S. anginosus</i> Group	0.25	0.25	<i>S. pneumoniae</i>	ATCC® 49619 0.12-0.5
		<i>S. anginosus</i> Group	0.25	-	-						
TELAVANCIN 0.002 - 32 µg/mL 0.016 - 256 µg/mL	TLV	<i>S. aureus</i> (including MRSA)	0.12	-	-		Methicillin-resistant <i>S. aureus</i>	0.125	0.125	<i>S. aureus</i>	ATCC® 29213 0.03-0.12
		Vancomycin-susceptible <i>E. faecalis</i>	0.25	-	-					<i>E. faecalis</i>	ATCC® 29212 0.03-0.12
		<i>Streptococcus</i> spp. β-Hemolytic Group	0.12	-	-					<i>S. pneumoniae</i>	ATCC® 49619 0.004-0.016
		<i>Streptococcus</i> spp. Viridans Group	0.06	-	-						
TETRACYCLINE 0.016 - 256 µg/mL	TE	Enterobacteriaceae	4		8	16	<i>Staphylococcus</i> spp.	1	2	<i>S. aureus</i>	ATCC® 29213 0.12-1
		<i>Acinetobacter</i> spp.	4		8	16	<i>Streptococcus</i> groups A, B, C and G	1	2	<i>E. faecalis</i>	ATCC® 29212 8-32
		Other Non-Enterobacteriaceae	4		8	16	<i>S. pneumoniae</i>	1	2	<i>E. coli</i>	ATCC® 25922 0.5-2
		<i>Staphylococcus</i> spp.	4		8	16	<i>H. influenzae</i>	1	2	<i>P. aeruginosa</i>	ATCC® 27853 8-32
		<i>Enterococcus</i> spp.	4		8	16	<i>M. catarrhalis</i>	1	2	<i>H. influenzae</i>	ATCC® 49247 4-32
		<i>Haemophilus</i> spp.	2		4	8	<i>N. gonorrhoeae</i>	0.5	1	<i>S. pneumoniae</i>	ATCC® 49619 0.06-0.5
		<i>N. gonorrhoeae</i>	0.25		0.5-1	2	<i>N. meningitidis</i>	1	2	<i>N. gonorrhoeae</i>	ATCC® 49226 0.25-1
		<i>S. pneumoniae</i>	1		2	4	<i>H. pylori</i>	1	1	<i>B. fragilis</i>	ATCC® 25285 0.125-0.5
		<i>Streptococcus</i> spp. β-Hemolytic Group	2		4	8	<i>C. jejuni</i> and <i>coli</i>	2	2	<i>B. thetaiaomicron</i>	ATCC® 29741 8-32
		<i>Streptococcus</i> spp. Viridans Group	2		4	8	<i>Corynebacterium</i> spp.	2	2	<i>H. influenzae</i>	ATCC® 49766 0.25-1
		Anaerobes	4		8	16	<i>Kingella kingae</i>	0.5	0.5		
TIAMULIN 0.002 - 32 µg/mL	TIA	Refer to CLSI VET01S				Not available				<i>S. aureus</i>	ATCC® 29213 0.5-2
										<i>S. pneumoniae</i>	ATCC® 49619 0.5-4

ANTIBIOTIC	CODE	CLSI INTERPRETATIVE CRITERIA ¹	S≤ MIC µg/mL	SDD µg/mL	I	R≥	EUCAST INTERPRETATIVE CRITERIA ²	S≤ MIC µg/mL	R>	QUALITY CONTROL	MIC µg/mL	
TICARCILLIN 0.016 - 256 µg/mL	TC	Not available					Enterobacteriaceae <i>Pseudomonas</i> spp. Gram-positive anaerobes except <i>C. difficile</i> Gram-negative anaerobes PK/PD (Non-species related) breakpoints	8 16 8 16 8	16 16 16 16 16	<i>S. aureus</i> <i>E. faecalis</i> <i>E. coli</i> <i>P. aeruginosa</i> <i>E. coli</i> <i>K. pneumoniae</i>	ATCC® 29213 ATCC® 29212 ATCC® 25922 ATCC® 27853 ATCC® 35218 ATCC® 700603	2-8 16-64 4-16 8-32 > 128 > 256
TICARCILLIN*-CLAVULANIC ACID (2 µg/mL) 0.016 - 256* µg/mL	TTC	Enterobacteriaceae <i>P. aeruginosa</i> <i>Acinetobacter</i> spp. <i>B. cepacia</i> <i>S. maltophilia</i> Other Non-Enterobacteriaceae Anaerobes	16 16 16 16 16 16 32	32-64 32-64 32-64 32-64 32-64 32-64 64	128 128 128 128 128 128 128		Enterobacteriaceae <i>Pseudomonas</i> spp. Gram-positive anaerobes except <i>C. difficile</i> Gram-negative anaerobes PK/PD (Non-species related) breakpoints	8 16 8 8 8	16 16 16 16 16	<i>S. aureus</i> <i>E. faecalis</i> <i>E. coli</i> <i>P. aeruginosa</i> <i>E. coli</i> <i>K. pneumoniae</i> <i>B. fragilis</i> <i>B. thetaiotaomicron</i> <i>E. lenta</i>	ATCC® 29213 ATCC® 29212 ATCC® 25922 ATCC® 27853 ATCC® 35218 ATCC® 700603 ATCC® 25285 ATCC® 29741 ATCC® 43055	0.5-2 16-64 4-16 8-32 8-32 32-128 0.06-0.5 0.5-2 8-32
TIGECYCLINE 0.016 - 256 µg/mL	TGC	Refer to the FDA drug label					Enterobacteriaceae <i>Staphylococcus</i> spp. <i>Enterococcus</i> spp. Streptococcus groups A, B, C and G PK/PD (Non-species related) breakpoints	1 0.5 0.25 0.25 0.25	2 0.5 0.5 0.5 0.5	<i>S. aureus</i> <i>E. faecalis</i> <i>E. coli</i> <i>H. influenzae</i> <i>S. pneumoniae</i> <i>B. fragilis</i> <i>B. thetaiotaomicron</i> <i>C. difficile</i>	ATCC® 29213 ATCC® 29212 ATCC® 25922 ATCC® 49247 ATCC® 49619 ATCC® 25285 ATCC® 29741 ATCC® 700057	0.03-0.25 0.03-0.12 0.03-0.25 0.06-0.5 0.016-0.12 0.06-0.5 0.25-1 0.03-0.12
TILMICOSIN 0.002 - 32 µg/mL	TIL	Refer to CLSI VET01S					Not available			<i>S. aureus</i> <i>E. faecalis</i>	ATCC® 29213 ATCC® 29212	1-4 8-32
TOBRAMYCIN 0.016 - 256 µg/mL 0.064 - 1024 µg/mL	TOB	Enterobacteriaceae <i>P. aeruginosa</i> <i>Acinetobacter</i> spp. Other Non-Enterobacteriaceae <i>Staphylococcus</i> spp.	4 4 4 4 4	8 8 8 8 8	16 16 16 16 16		Enterobacteriaceae <i>Pseudomonas</i> spp. <i>Acinetobacter</i> spp. <i>S. aureus</i> Coagulase-negative staphylococci PK/PD (Non-species related) breakpoints	2 4 4 1 1 2	4 4 4 1 1 4	<i>S. aureus</i> <i>E. faecalis</i> <i>E. coli</i> <i>P. aeruginosa</i>	ATCC® 29213 ATCC® 29212 ATCC® 25922 ATCC® 27853	0.12-1 8-32 0.25-1 0.25-1
TRIMETHOPRIM 0.002 - 32 µg/mL	TM	Enterobacteriaceae <i>Staphylococcus</i> spp.	8 8	- -	16 16		Enterobacteriaceae <i>Staphylococcus</i> spp. <i>Enterococcus</i> spp. Streptococcus groups A, B, C and G	2 2 0.03 2	4 4 1 2	<i>S. aureus</i> <i>E. faecalis</i> <i>E. coli</i> <i>P. aeruginosa</i>	ATCC® 29213 ATCC® 29212 ATCC® 25922 ATCC® 27853	1-4 0.12-0.5 0.5-2 > 64
TRIMETHOPRIM*-SULFAMETHOXAZOLE (1/19) 0.002 - 32* µg/mL	SXT	Enterobacteriaceae <i>Acinetobacter</i> spp. <i>B. cepacia</i> <i>S. maltophilia</i> Other Non-Enterobacteriaceae <i>Staphylococcus</i> spp. <i>Haemophilus</i> spp. <i>S. pneumoniae</i> <i>N. meningitidis</i>	2 2 2 2 2 2 0.5 0.5 0.12	- - - - - - 1-2 1-2 0.25	4 4 4 4 4 4 4 4 0.5		Enterobacteriaceae <i>S. maltophilia</i> <i>Acinetobacter</i> spp. <i>Staphylococcus</i> spp. <i>Enterococcus</i> spp. Streptococcus groups A, B, C and G <i>S. pneumoniae</i> <i>H. influenzae</i> <i>M. catarrhalis</i> <i>L. monocytogenes</i> <i>P. multocida</i> <i>Kingella kingae</i>	2 4 2 2 0.03 1 1 0.5 0.5 0.06 0.25 0.25	4 4 4 4 1 2 2 1 1 0.06 0.25 0.25	<i>S. aureus</i> <i>E. faecalis</i> <i>E. coli</i> <i>P. aeruginosa</i> <i>H. influenzae</i> <i>S. pneumoniae</i> <i>H. influenzae</i>	ATCC® 29213 ATCC® 29212 ATCC® 25922 ATCC® 27853 ATCC® 49247 ATCC® 49619 ATCC® 49766	≤ 0.5 ≤ 0.5 ≤ 0.5 8-32 0.03-0.25 0.12-1 0.5-2 0.016-0.06

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ANTIBIOTIC	CODE	CLSI INTERPRETATIVE CRITERIA ¹	S≤	SDD MIC µg/mL	I	R≥	EUCAST INTERPRETATIVE CRITERIA ²	S≤	R>	QUALITY CONTROL	MIC µg/mL	
VANCOMYcin 0.016 - 256 µg/mL	VA	<i>S. aureus</i> <i>Staphylococcus</i> spp. <i>Enterococcus</i> spp. <i>S. pneumoniae</i> <i>Streptococcus</i> spp. β-Hemolytic Group <i>Streptococcus</i> spp. Viridans Group	2 4 4 1 1	4-8 8-16 8-16 - -	16 32 32 - -		<i>S. aureus</i> Coagulase-negative staphylococci <i>Enterococcus</i> spp. <i>Streptococcus</i> groups A, B, C and G <i>S. pneumoniae</i> Viridans group streptococci Gram-positive anaerobes except <i>C. difficile</i> <i>C. difficile</i> <i>Corynebacterium</i> spp. <i>Aerococcus sanguinicola</i> and <i>urinae</i>	2 4 4 2 2 2 2 2 2 1	2 4 4 2 2 2 2 2 1	<i>S. aureus</i> <i>E. faecalis</i> <i>S. pneumoniae</i>	ATCC® 29213 ATCC® 29212 ATCC® 49619	0.5-2 1-4 0.12-0.5

* Value on the M.I.C. scale refers to the first component of the combination.

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ANTIFUNGAL	CODE	CLSI INTERPRETATIVE CRITERIA ⁵	S≤ MIC µg/mL	I MIC µg/mL	R≥ MIC µg/mL	EUCAST INTERPRETATIVE CRITERIA ⁶	S≤ MIC µg/mL	R> MIC µg/mL	QUALITY CONTROL	MIC µg/mL 48 hours	
AMPHOTERICIN B 0.002 - 32 µg/mL	AMB	Not available				<i>C. albicans</i> <i>C. glabrata</i> <i>C. krusei</i> <i>C. parapsilosis</i> <i>C. tropicalis</i> <i>A. fumigatus</i> <i>A. niger</i>	1 1 1 1 1 1 1	1 1 1 1 1 2 2	<i>C. parapsilosis</i> <i>C. krusei</i> <i>C. albicans</i>	ATCC® 22019 ATCC® 6258 ATCC® 90028	0.25-1 0.5-2 0.125-0.5
ANIDULAFUNGIN 0.002 - 32 µg/mL	AND	<i>C. albicans</i> 0.25 <i>C. glabrata</i> 0.12 <i>C. tropicalis</i> 0.25 <i>C. krusei</i> 0.25 <i>C. parapsilosis</i> 2 <i>C. guilliermondii</i> 2	0.5 0.25 0.5 0.5 1 4 4	1 0.5 1 1 8 8	<i>C. albicans</i> <i>C. glabrata</i> <i>C. krusei</i> <i>C. parapsilosis</i> <i>C. tropicalis</i>	0.03 0.06 0.06 0.002 0.06	0.03 0.06 0.06 4 0.06	<i>C. parapsilosis</i> <i>C. krusei</i> <i>C. albicans</i>	ATCC® 22019 ATCC® 6258 ATCC® 90028	0.5-4 0.016-0.125 0.002-0.008	
CASPOFUNGIN 0.002 - 32 µg/mL	CAS	<i>C. albicans</i> 0.25 <i>C. glabrata</i> 0.12 <i>C. tropicalis</i> 0.25 <i>C. krusei</i> 0.25 <i>C. parapsilosis</i> 2 <i>C. guilliermondii</i> 2	0.5 0.25 0.5 0.5 1 8 8	1 0.5 1 1 8 8	Not available			<i>C. parapsilosis</i> <i>C. krusei</i> <i>C. albicans</i>	ATCC® 22019 ATCC® 6258 ATCC® 90028	0.25-2 0.25-1 0.064-0.25	
FLUCONAZOLE 0.016 - 256 µg/mL	FLU	<i>C. albicans</i> 2 <i>C. glabrata</i> - <i>C. parapsilosis</i> 2 <i>C. tropicalis</i> 2	4 32 64 8 4 8	8 64 8 8	<i>C. albicans</i> <i>C. glabrata</i> <i>C. parapsilosis</i> <i>C. tropicalis</i>	2 0.002 2 2	4 32 4 4	<i>C. parapsilosis</i> <i>C. krusei</i> <i>C. albicans</i>	ATCC® 22019 ATCC® 6258 ATCC® 90028	1-8 128->256 0.125-0.5	
FLUCYTOSINE 0.002 - 32 µg/mL	FC	Not available				Not available		<i>C. parapsilosis</i> <i>C. krusei</i> <i>C. albicans</i>	ATCC® 22019 ATCC® 6258 ATCC® 90028	0.064-0.25 ≥32 0.5-2	
ITRACONAZOLE 0.002 - 32 µg/mL	ITC	Not available				<i>C. albicans</i> <i>C. parapsilosis</i> <i>C. tropicalis</i> <i>A. flavus</i> <i>A. fumigatus</i> <i>A. nidulans</i> <i>A. terreus</i>	0.06 0.12 0.12 1 1 1 1	0.06 0.12 0.12 2 2 2 2	<i>C. parapsilosis</i> <i>C. krusei</i> <i>C. albicans</i>	ATCC® 22019 ATCC® 6258 ATCC® 90028	0.064-0.25 0.25-1 0.064-0.25
ISAVUCONAZOLE 0.002 - 32 µg/mL	IVU	Not available				<i>A. fumigatus</i> <i>A. nidulans</i> <i>A. terreus</i>	1 0.25 1	1 0.25 1	<i>C. parapsilosis</i> <i>C. krusei</i> <i>C. albicans</i>	ATCC® 22019 ATCC® 6258 ATCC® 90028	0.008-0.032 0.125-1 0.008-0.032
KETOCONAZOLE 0.002 - 32 µg/mL	KE	Not available				Not available		<i>C. parapsilosis</i> <i>C. krusei</i> <i>C. albicans</i>	ATCC® 22019 ATCC® 6258 ATCC® 90028	0.032-0.125 0.25-1 0.008-0.032	
MICAFUNGIN 0.002 - 32 µg/mL	MYC	<i>C. albicans</i> 0.25 <i>C. glabrata</i> 0.06 <i>C. tropicalis</i> 0.25 <i>C. krusei</i> 0.25 <i>C. parapsilosis</i> 2 <i>C. guilliermondii</i> 2	0.5 0.12 0.5 1 0.5 1 4 8 4 8	1 0.25 1 1 1 8 8	<i>C. albicans</i> <i>C. glabrata</i> <i>C. parapsilosis</i>	0.016 0.03 0.002	0.016 0.03 2	<i>C. parapsilosis</i> <i>C. krusei</i> <i>C. albicans</i>	ATCC® 22019 ATCC® 6258 ATCC® 90028	0.25-2 0.032-0.25 0.004-0.032	
POSACONAZOLE 0.002 - 32 µg/mL	POS	Not available				<i>C. albicans</i> <i>C. parapsilosis</i> <i>C. tropicalis</i> <i>A. fumigatus</i> <i>A. terreus</i>	0.06 0.06 0.06 0.12 0.12	0.06 0.06 0.06 0.25 0.25	<i>C. parapsilosis</i> <i>C. krusei</i> <i>C. albicans</i>	ATCC® 22019 ATCC® 6258 ATCC® 90028	0.032-0.25 0.125-0.5 0.032-0.125
VORICONAZOLE 0.002 - 32 µg/mL	VO	<i>C. albicans</i> 0.12 <i>C. krusei</i> 0.5 <i>C. parapsilosis</i> 0.12 <i>C. tropicalis</i> 0.12	0.25-0.5 1 0.25-0.5 1 0.25-0.5	1 2 1 1 1	<i>C. albicans</i> <i>C. parapsilosis</i> <i>C. tropicalis</i> <i>A. fumigatus</i>	0.12 0.12 0.12 1	0.12 0.12 0.12 2	<i>C. parapsilosis</i> <i>C. krusei</i> <i>C. albicans</i>	ATCC® 22019 ATCC® 6258 ATCC® 90028	0.016-0.064 0.25-1 0.004-0.016	

ANTIMYCOBACTERIAL	CODE	INTERPRETATIVE CRITERIA	QUALITY CONTROL	MIC µg/mL
ETHAMBUTOL 0.016 - 256 µg/mL	EB	Not available	<i>M. tuberculosis</i>	0.064-0.25
ETHIONAMIDE 0.016 - 256 µg/mL	ET	Not available	<i>M. tuberculosis</i>	0.016-0.064
ISONIAZIDE 0.016 - 256 µg/mL	IZ	Not available	<i>M. tuberculosis</i>	0.016-0.064

RESISTANCE DETECTION

ESBL: Extended Spectrum Beta Lactamase	CODE	INTERPRETATIVE CRITERIA Refer to MTS26	QUALITY CONTROL	MIC µg/mL
CEFEPIME / CEFEPIME + CLAVULANIC ACID (4 µg/mL) 0.25-16 / 0.064-4 µg/mL	FEP/FEL	FEP ≥ 0.25 µg/mL and FEP/FEL ≥ 8 µg/mL or deformation of ellipse or phantom zone	<i>P. aeruginosa</i> ATCC® 27853	FEP 0.5-2 FEL 1-4
			<i>K. pneumoniae</i> ATCC® 700603	FEP 0.25-1 FEL 0.064-0.25
CEFOTAXIME / CEFOTAXIME + CLAVULANIC ACID (4 µg/mL) 0.25-16 / 0.016-1 µg/mL	CTX/CTL	CTX ≥ 0.5 µg/mL and CTX/CTL ≥ 8 µg/mL or deformation of ellipse or phantom zone	<i>E. coli</i> ATCC® 35218	CTX ≤ 0.25 CTL 0.016-0.064
			<i>K. pneumoniae</i> ATCC® 700603	CTX 1-4 CTL 0.125-1
CEFTAZIDIME / CEFTAZIDIME + CLAVULANIC ACID (4 µg/mL) 0.5-32 / 0.064-4 µg/mL	CAZ/CAL	CAZ ≥ 1 µg/mL and CAZ/CAL ≥ 8 µg/mL or deformation of ellipse or phantom zone	<i>E.coli</i> ATCC® 35218	CAZ ≤ 0.5 CAL ≤ 0.064
			<i>K. pneumoniae</i> ATCC® 700603	CAZ ≥ 8 CAL 0.125-0.5

MBL: Metallo Beta Lactamase	CODE	INTERPRETATIVE CRITERIA Refer to MTS27	QUALITY CONTROL	MIC µg/mL
IMIPENEM / IMIPENEM + EDTA 4-256 / 1-64 µg/mL 0.125-8 / 0.032-2 µg/mL	IMI/IMD	IMI/IMD ≥ 8 µg/mL or deformation of ellipse or phantom zone	<i>P. aeruginosa</i> ATCC® 27853	IMI ≤ 4 IMD 1-4
			<i>S. maltophilia</i> ATCC® 13636	IMI 64-256 IMD 1-4
MEROPENEM / MEROPENEM + EDTA 0.125-8 / 0.032-2 µg/mL	MRP/MRD	MRP/MRD ≥ 8 µg/mL or deformation of ellipse or phantom zone	<i>P. aeruginosa</i> ATCC® 27853	MBL negative
			<i>K. pneumoniae</i> ATCC® BAA-2146	MBL positive

GRD: Glycopeptide Resistance Detection	CODE	INTERPRETATIVE CRITERIA Refer to MTS28	QUALITY CONTROL	MIC µg/mL
VANCOMYCIN / TEICOPLANIN 0.5-32 / 0.5-32 µg/mL	VA/TEC	VA or TEC ≥ 8 µg/mL <ul style="list-style-type: none">• GISA: GRD+ and MIC Test Strip VA M.I.C. ≥ 4 µg/mL• hGISA: GRD+ and MIC Test Strip VA M.I.C. < 4 µg/mL	<i>S. aureus</i> ATCC® 29213	VA 0.5-2 TEC 1-4
			<i>S. aureus</i> ATCC® 700698	VA 1-8 TEC ≥ 32
			<i>S. aureus</i> ATCC® 700699	VA 4-16 TEC ≥ 32

AmpC	CODE	INTERPRETATIVE CRITERIA Refer to MTS29	Tentative QUALITY CONTROL	MIC µg/mL
CEFOTETAN / CEFOTETAN+ CLOXA CILLIN 0.5-32 / 0.5-32 µg/mL	CTT/CXT	CTT/CXT ≥ 8 µg/mL or deformation of ellipse or phantom zone	<i>K. pneumoniae</i> ATCC® 700603	CTT 0.5-2 CXT 0.5-2
			<i>K. pneumoniae</i> ATCC® BAA-1144	CTT ≥ 32 CXT 0.5-1

KPC: Klebsiella Producing Carbapenemase	CODE	INTERPRETATIVE CRITERIA Refer to MTS35	QUALITY CONTROL	Result
ERTAPENEM / ERTAPENEM + PHENYLBORONIC ACID 0.125-8 / 0.032-2 µg/mL	ETP/EBO	ETP/EBO ≥ 8 µg/mL or deformation of ellipse or phantom zone	<i>K. pneumoniae</i> ATCC® BAA-1706	KPC negative
MEROPENEM / MEROPENEM + PHENYLBORONIC ACID 0.125-8 / 0.032-2 µg/mL	MRP/MBO	MRP/MBO ≥ 8 µg/mL or deformation of ellipse or phantom zone	<i>K. pneumoniae</i> ATCC® BAA-1705	KPC positive

NB. These tests are NOT intended for the determination of the MIC.

References

1. CLSI. Performance Standards for Antimicrobial Susceptibility Testing; 27th ed. CLSI Supplement M100S. Wayne, PA: Clinical and Laboratory Standards Institute; 2017.
2. The European Committee on Antimicrobial Susceptibility Testing. Breakpoint tables for interpretation of MICs and zone diameters. Version 7.0, 2017. <http://www.eucast.org>.
3. The European Committee on Antimicrobial Susceptibility Testing. Routine and extended internal quality control for MIC determination and disk diffusion as recommended by EUCAST. Version 7.0, 2017. <http://www.eucast.org>.
4. CLSI. Performance Standards for Antimicrobial Disk and Dilution Susceptibility Tests for Bacteria Isolated From Animals; Approved Standard - Third Edition. CLSI document M31-A3. Wayne, PA: Clinical and Laboratory Standards Institute; 2008.
5. CLSI. Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts; Fourth Informational Supplement. CLSI document M27-S4. Wayne, PA: Clinical and Laboratory Standards Institute; 2012.
6. The European Committee on Antimicrobial Susceptibility Testing. Antifungal Agents. Breakpoint tables for interpretation of MICs. Version 8.0, valid from 2015-11-16.
7. The European Committee on Antimicrobial Susceptibility Testing. Routine and extended internal quality control for antifungal susceptibility testing as recommended by EUCAST. Version 1.0, 2015. <http://www.eucast.org>.



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