

Dosages

EUCAST Clinical Breakpoint Tables v. 9.0, valid from 2019-01-01

EUCAST breakpoints are based on the following dosages (see section 8 in Rationale Documents). Alternative dosing regimens which result in equivalent exposure are acceptable. The table should not be considered an exhaustive guidance for dosing in clinical practice, and does not replace specific local, national, or regional dosing guidelines.

Penicillins	Standard dose	High dose	Special situations
Benzylpenicillin	0.6 g (1 MU) x 4 iv	1.2 g (2 MU) x 4-6 iv	Meningitis: For a dose of 2.4 g (4 MU) x 6 iv, isolates with MIC ≤ 0.06 mg/L are susceptible. Pneumonia caused by <i>S. pneumoniae</i>: breakpoints are related to dosage: For a dose of 1.2 g (2 MU) x 4 iv, isolates with MIC ≤ 0.5 mg/L are susceptible. For a dose of 2.4 (4 MU) g x 4 iv or 1.2 g (2 MU) x 6 iv, isolates with MIC ≤ 1 mg/L are susceptible. For a dose of 2.4 g (4 MU) x 6 iv, isolates with MIC ≤ 2 mg/L are susceptible.
Ampicillin	2 g x 3 iv	2 g x 4 iv	Meningitis: 2 g x 6 iv
Ampicillin-sulbactam	(2 g ampicillin + 1 g sulbactam) x 3 iv	(2 g ampicillin + 1 g sulbactam) x 4 iv	
Amoxicillin iv	1 g x 3-4 iv Under review	2 g x 6 iv	Meningitis: 2 g x 6 iv
Amoxicillin oral	0.5 g x 3	0.75 g -1 g x 3	<i>H. influenzae</i>: High dose only
Amoxicillin-clavulanic acid iv	(1 g amoxicillin + 0.2 g clavulanic acid) x 3-4 iv Under review	(2 g amoxicillin + 0.2 g clavulanic acid) x 3 iv	
Amoxicillin-clavulanic acid oral	(0.5 g amoxicillin + 0.125 g clavulanic acid) x 3	(0.875 g amoxicillin + 0.125 g clavulanic acid) x 3	<i>H. influenzae</i>: High dose only
Piperacillin	4 g x 3 iv	4 g x 4 iv	<i>Pseudomonas spp.</i>: High dose only
Piperacillin-tazobactam	(4 g piperacillin + 0.5 g tazobactam) x 3 iv	(4 g piperacillin + 0.5 g tazobactam) x 4 iv	<i>Pseudomonas spp.</i>: High dose only
Ticarcillin	3 g x 4 iv	3 g x 6 iv	<i>Pseudomonas spp.</i>: High dose only
Ticarcillin-clavulanic acid	(3 g ticarcillin + 0.1/0.2 g clavulanic acid) x 4 iv	(3 g ticarcillin + 0.1 g clavulanic acid) x 6 iv	<i>Pseudomonas spp.</i>: High dose only
Phenoxymethylpenicillin	0.5-2 g x 3-4 oral depending on species and/or infection type	None	
Oxacillin	1 g x 4 iv	1 g x 6 iv	
Cloxacillin	0.5 g x 4 oral or 1 g x 4 iv	1 g x 4 oral or 2 g x 6 iv	
Dicloxacillin	0.5-1 g x 4 oral or 1 g x 4 iv	2 g x 4 oral or 2 g x 6 iv	
Flucloxacillin	1 g x 3 oral or 2 g x 4 iv (or 1 g x 6 iv)	1 g x 4 oral or 2 g x 6 iv	
Mecillinam	0.2 g x 3 oral	0.4 g x 3 oral	

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Cephalosporins	Standard dose	High dose	Special situations
Cefaclor	0.25-1 g x 3 oral depending on species and/or infection type	None	<i>Staphylococcus</i> spp.: Minimum dose 0.5 g x 3
Cefadroxil	0.5-1 g x 2 oral depending on species and/or infection type	None	
Cefalexin	0.25-1 g x 2-3 oral depending on species and/or infection type	None	
Cefazolin	1 g x 3-4 (or 2 g x 3) iv depending on species and/or infection type	None	
Cefepime	1 g x 3 or 2 g x 2 iv	2 g x 3 iv	<i>Pseudomonas</i> spp.: High dose only
Cefixime	0.2-0.4 g x 2 oral	None	Gonorrhoea: 0.4 g oral as a single dose
Cefotaxime	1 g x 3 iv	2 g x 3 iv	Meningitis: 2 g x 4 iv <i>S. aureus</i> : High dose only Gonorrhoea: 0.5 g im as a single dose
Cefpodoxime	0.1-0.2 g x 2 oral depending on species and/or infection type	None	
Ceftaroline	0.6 g x 2 iv over 1 hour	0.6 g x 3 iv over 2 hours	<i>S. aureus</i> in complicated skin and skin structure infections: There is some PK-PD evidence to suggest that isolates with MICs of 4 mg/L could be treated with high dose.
Ceftazidime	1 g x 3 iv	2 g x 3 iv or 1 g x 6 iv	<i>Pseudomonas</i> spp.: High dose only
Ceftazidime-avibactam	(2 g ceftazidime + 0.5 g avibactam) x 3 over 2 hours	None	
Ceftibuten	0.4 g x 1 oral	None	
Ceftobiprole	0.5 g x 3 iv over 2 hours	None	
Ceftolozane-tazobactam	(1 g ceftolozane + 0.5 g tazobactam) x 3 iv over 1 hour	Under evaluation	
Ceftriaxone	1 g x 1 iv	2 g x 2 iv	Meningitis: 4 g x 1 iv <i>S. aureus</i> : High dose only Gonorrhoea: 0.5 g im as a single dose
Cefuroxime iv	0.75 g x 3 iv	1.5 g x 3 iv	<i>E. coli</i> , <i>Klebsiella</i> spp. (except <i>K. aerogenes</i>), <i>Raoultella</i> spp. and <i>P. mirabilis</i> : High dose only
Cefuroxime oral	0.25-0.5 g x 2 oral depending on species and/or infection type	None	

Carbapenems	Standard dose	High dose	Special situations
Doripenem			
Ertapenem	1 g x 1 iv over 30 minutes	None	
Imipenem	0.5 g x 4 iv over 30 minutes	1 g x 4 iv over 30 minutes	<i>Pseudomonas</i> spp.: High dose only <i>Acinetobacter</i> spp.: High dose only
Meropenem	1 g x 3 iv over 30 minutes	2 g x 3 iv over 3 hours	Meningitis: 2 g x 3 iv over 30 minutes (or 3 hours)
Meropenem-vaborbactam	(2 g meropenem + 2 g vaborbactam) x 3 iv over 3 hours	None	

Monobactams	Standard dose	High dose	Special situations
Aztreonam	1 g x 3 iv	2 g x 4 iv	<i>Pseudomonas</i> spp.: High dose only

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Fluoroquinolones	Standard dose	High dose	Special situations
Ciprofloxacin	0.5 g x 2 oral or 0.4 g x 2 iv	0.75 g x 2 oral or 0.4 g x 3 iv	<i>Pseudomonas</i> spp.: High dose only <i>Acinetobacter</i> spp.: High-dose-only <i>Staphylococcus</i> spp.: High dose only <u>± combination</u> Genorrhoea: 0.5 g oral as a single dose
Levofloxacin	0.5 g x 1 oral or 0.5 g x 1 iv	0.5 g x 2 oral or 0.5 g x 2 iv	<i>Pseudomonas</i> spp.: High dose only <i>Acinetobacter</i> spp.: High-dose-only Streptococcus groups A, B, C and G: High dose only <i>S. pneumoniae</i> : High dose only
Moxifloxacin	0.4 g x 1 oral or 0.4 g x 1 iv	None	
Norfloxacin	0.4 g x 2 oral	None	
Ofloxacin	0.2 g x 2 oral or 0.2 g x 2 iv	0.4 g x 2 oral or 0.4 g x 2 iv	<i>Staphylococcus</i> spp.: High dose only <u>± combination</u>

Aminoglycosides	Standard dose	High dose	Special situations
Amikacin	20 mg/kg x 1 iv	30 mg/kg x 1 iv	Enterobacterales: High dose only <i>Pseudomonas</i> spp.: High dose only <i>Acinetobacter</i> spp.: High dose only
Gentamicin	5 mg/kg x 1 iv	7 mg/kg x 1 iv	Enterobacterales: High dose only <i>Pseudomonas</i> spp.: High dose only <i>Acinetobacter</i> spp.: High dose only
Netilmicin	5 mg/kg x 1 iv	7 mg/kg x 1 iv	Enterobacterales: High dose only <i>Pseudomonas</i> spp.: High dose only <i>Acinetobacter</i> spp.: High dose only
Tobramycin	5 mg/kg x 1 iv	7 mg/kg x 1 iv	Enterobacterales: High dose only <i>Pseudomonas</i> spp.: High dose only <i>Acinetobacter</i> spp.: High dose only

Glycopeptides and lipoglycopeptides	Standard dose	High dose	Special situations
Dalbavancin	1 g x 1 iv over 30 minutes on day 1 If needed, 0.5 g x 1 iv over 30 minutes on day 8	None	
Oritavancin	1.2 g x 1 (single dose) iv over 3 hours	None	
Teicoplanin	0.4 g x 1 iv	0.8 g x 1 iv	
Telavancin	10 mg/kg x 1 iv over 1 hour	None	
Vancomycin	0.5 g x 4 iv or 1 g x 2 iv or 2 g x 1 by continuous infusion	None	Based on body weight. Therapeutic drug monitoring should guide dosing.

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Macrolides, lincosamides and streptogramins	Standard dose	High dose	Special situations
Azithromycin	0.5 g x 1 oral or 0.5 g x 1 iv	None	Gonorrhoea: 2 g oral as a single dose
Clarithromycin	0.25 g x 2 oral	0.5 g x 2 oral	
Erythromycin	0.5 g x 2-4 oral or 0.5 g x 2-4 iv	1 g x 4 oral or 1 g x 4 iv	
Roxithromycin	0.15 g x 2 oral	None	
Telithromycin	0.8 g x 1 oral	None	
Clindamycin	0.3 g x 2 oral or 0.6 g x 3 iv	0.3 g x 4 oral or 0.9 g x 3 iv	
Quinupristin-dalfopristin	7.5 mg/kg x 2 iv	7.5 mg/kg x 3 iv	

Tetracyclines	Standard dose	High dose	Special situations
Doxycycline	0.1 g x 1 oral	0.2 g x 1 oral	
Eravacycline	1 mg/kg x 2 iv	None	
Minocycline	0.1 g x 2 oral	None	
Tetracycline	0.25 g x 4 oral	0.5 g x 4 oral	
Tigecycline	0.1 g loading dose followed by 50 mg x 2 iv	None	

Oxazolidinones	Standard dose	High dose	Special situations
Linezolid	0.6 g x 2 oral or 0.6 g x 2 iv	None	
Tedizolid	0.2 g x 1 oral	None	

Miscellaneous agents	Standard dose	High dose	Special situations
Chloramphenicol	1 g x 4 oral or 1 g x 4 iv	2 g x 4 oral or 2 g x 4 iv	<i>Neisseria meningitidis</i> : High dose only
Colistin	4.5 MU x 2 iv with a loading dose of 9 MU	None	
Daptomycin	4 mg/kg x 1 iv	6 mg/kg x 1 iv	
Fosfomycin iv	4 g x 3 iv	8 g x 3 iv	
Fosfomycin oral	3 g x 1 oral as a single dose	None	
Fusidic acid	0.5 g x 2 oral or 0.5 g x 2 iv	0.5 g x 3 oral or 0.5 g x 3 iv	
Metronidazole	0.4 g x 3 oral or 0.4 g x 3 iv	0.5 g x 3 oral or 0.5 g x 3 iv	
Nitrofurantoin	50-100 mg x 3-4 oral	None	Dosing is dependent on drug formulation.
Nitroxoline	0.25 g x 3 oral	None	
Rifampicin	0.6 g x 1 oral or 0.6 g x 1 iv	0.6 g x 2 oral or 0.6 g x 2 iv	
Spectinomycin	2 g x 1 im	None	Gonorrhoea: 2 g im as a single dose
Trimethoprim	0.16 g x 2 oral	None	
Trimethoprim-sulfamethoxazole	(0.16 g trimethoprim + 0.8 g sulfa) x 2 oral or (0.16 g trimethoprim + 0.8 g sulfa) x 2 iv	(0.24 g trimethoprim + 1.2 g sulfa) x 2 oral or (0.24 g trimethoprim + 1.2 g sulfa) x 2 iv	<i>Stenotrophomonas maltophilia</i> : High dose only