

ANTIMICROBIAL DOSING RECOMMENDATIONS FOR PEDIATRIC PATIENTS¹

	CrCl ² > 50 ml/min	CrCl ² 50-30 ml/min	CrCl ² 29-10 ml/min	CrCl ² < 10 ml/min & Hemodialysis ³	CRRT ⁴
CEFAZOLIN	For Normal Renal Function: 50-100 mg/kg/day ÷ q8h. Max Daily Dose=6 gm.				
Mild/mod infection	17 mg/kg/dose q8h	-----	17 mg/kg/dose q12h	17 mg/kg/dose q24h	17 mg/kg/dose q12h
Severe infection	33 mg/kg/dose q8h		33 mg/kg/dose q12h	33 mg/kg/dose q24h	35 mg/kg/dose q12h
CEFOTAXIME	For Normal Renal Function: 100-200 mg/kg/day ÷ q6-8h . Max Daily Dose=12 gm.				
Mild/mod infection	50 mg/kg/dose q8-12h	-----	50 mg/kg/dose q 12h	50 mg/kg/dose q24h	50 mg/kg/dose q12h
Severe infection	50 mg/kg/dose q6-8h		50 mg/kg/dose q12h	50 mg/kg/dose q24h	50mg/kg/dose q8h
CEFOTETAN	For Normal Renal Function: 40-80 mg/kg/day ÷ q12h. Max Daily Dose=4 gm.				
Mild/mod infection	20 mg/kg/dose q12h	-----	20 mg/kg/dose q24h	20 mg/kg/dose q48h	20 mg/kg/dose q24h
Severe infection	40 mg/kg/dose q12h		40 mg/kg/dose q24h	40 mg/kg/dose q48h	40 mg/kg/dose q24h
CEFUROXIME	For Normal Renal Function: 75-150 mg/kg/day ÷ q8h. Max Daily Dose=9 gm.				
Mild/mod infection	25 mg/kg/dose q8h	-----	25 mg/kg/dose q12h	25 mg/kg/dose q24h	25 mg/kg/dose q12h
Severe infection	50 mg/kg/dose q8h		50 mg/kg/dose q12h	50 mg/kg/dose q24h	50 mg/kg/dose q12h
CEFTRIAXONE	For Normal Renal Function: 50-100 mg/kg/day ÷ q12-24h. Max Daily Dose=4 gm.				
Mild/mod infection	50 mg/kg/dose q24h	-----	-----	-----	-----
Severe infection/Endocarditis	75 mg/kg/dose q24h				
Meningitis	50 mg/kg/dose q12h				
CEFTAZIDIME	For Normal Renal Function: 100-150 mg/kg/day ÷ q8h. Max Daily Dose=6 gm.				
Mild/mod infection	33 mg/kg/dose q8h	33 mg/kg/dose q12h	33 mg/kg/dose q24h	33 mg/kg/dose q48h	33 mg/kg/dose q12h
Severe infection	50 mg/kg/dose q8h	50 mg/kg/dose q12h	50 mg/kg/dose q24h	50 mg/kg/dose q48h	50 mg/kg/dose q12h
CEFEPIME	For Normal Renal Function: 100-150 mg/kg/day ÷ q8-12h. Max Daily Dose=6 gm.				
Mild/mod infection	50 mg/kg/dose q12h	50 mg/kg/dose q24h	50 mg/kg/dose q24h	50 mg/kg/dose q24h	50 mg/kg/dose q24h
Severe infection	50 mg/kg/dose q8h	50 mg/kg/dose q12h	50 mg/kg/dose q12h	50 mg/kg/dose q24h	50 mg/kg/dose q12h
Febrile neutropenia	50 mg/kg/dose q8h	50 mg/kg/dose q12h	50 mg/kg/dose 12h	50 mg/kg/dose q24h	50 mg/kg/dose q12h
PENICILLIN	For Normal Renal Function: 100,000-200,000 units/kg/day ÷ q4-6h. Max Daily Dose=24 million units.				
Mild/mod infection	17,000-35,000 units/kg/dose q4-6h	17,000-35,000 units/kg/dose q6h	17,000-35,000 units/kg/dose q8h	17,000-35,000 units/kg/dose q12h	17,000-35,000 units/kg/dose q6h
Severe infection	40,000 units/kg/dose q4h	40,000 units/kg/dose q6h	40,000 units/kg/dose q8h	40,000 units/kg/dose q12h	40,000 units/kg/dose q6h
AMPICILLIN	For Normal Renal Function: 100-400 mg/kg/day ÷ q6h. Max Daily Dose=12 gm.				
Mild/mod infection	25-50 mg/kg/dose q6h	25-50 mg/kg/dose q8h	25-50 mg/kg/dose q12h	25-50 mg/kg/dose q24h	25-50 mg/kg/dose q8h
Severe infection	50-100 mg/kg/dose q6h	50-100 mg/kg/dose q8h	50-100 mg/kg/dose q8-12h	50-100 mg/kg/dose q12-24h	50-100 mg/kg/dose q8h
AMPICILLIN/SULBACTAM	For Normal Renal Function: 100-400 mg/kg/day of ampicillin component ÷ q6h. Max Daily Dose=12 gm				
Mild/mod infection	25-50 mg/kg/dose q6h	25-50 mg/kg/dose q8h	25-50 mg/kg/dose q12h	25-50 mg/kg/dose q24h	25-50 mg/kg/dose q8h
Severe infection	50-100 mg/kg/dose q6h	50-100 mg/kg/dose q8h	50-100 mg/kg/dose q8-12h	50-100 mg/kg/dose q12-24h	50-100 mg/kg/dose q8h
PIPERACILLIN	For Normal Renal Function: 200-400 mg/kg/day ÷ q6h. Max Daily Dose=16 gm.				
Mild/mod infection	50 mg/kg/dose q6h	-----	50 mg/kg/dose q8-12h	25-50 mg/kg/dose q12-24h	25-50 mg/kg/dose q8h



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	CrCl ² > 50 ml/min	CrCl ² 50-30 ml/min	CrCl ² 29-10 ml/min	CrCl ² < 10 ml/min & Hemodialysis ³	CRRT ⁴
Severe infection	75-100 mg/kg/dose q6h		75-100 mg/kg/dose q8h	75-100 mg/kg/dose q12h	75-100 mg/kg/dose q8h
PIPERACILLIN/TAZOBACTAM	For Normal Renal Function: 200-400 mg/kg/day of piperacillin component ÷ q6h. Max Daily Dose=16 gm.				
Mild/mod infection	50 mg/kg/dose q6h		50 mg/kg/dose q8-12h	25-50 mg/kg/dose q12-24h	25-50 mg/kg/dose q8h
Severe infection	75-100 mg/kg/dose q6h	-----	75-100 mg/kg/dose q8h	75-100 mg/kg/dose q12h	75-100 mg/kg/dose q8h
NAFCILLIN	For Normal Renal Function: 100-200 mg/kg/day ÷ q6h. Max Daily Dose=12 gm.				
Mild/mod infection	25 mg/kg/dose q6h	-----	-----	-----	-----
Severe infection	50 mg/kg/dose q6h				
VANCOMYCIN⁵	For Normal Renal Function: 40-60 mg/kg/day ÷ q6h. Max Daily Dose = 4 gm.				
Mild/mod infection	10 mg/kg/dose q6h	10 mg/kg/dose q12h	10 mg/kg/dose q24-48h	10 mg/kg/dose x1	10 mg/kg/dose q12h
Severe infection/CNS	15 mg/kg/dose q6h	15 mg/kg/dose q12h	15 mg/kg/dose q24-48h	15 mg/kg/dose x1	15 mg/kg/dose q12h
GENTAMICIN/TOBRAMYCIN⁵	For Normal Renal Function: 6-7.5 mg/kg/day ÷ q8h.				
Mild/mod infection	2 mg/kg/dose q8h	2 mg/kg/dose q12h	2 mg/kg/dose q18-24h	2 mg/kg/dose q48h	2 mg/kg/dose q12h
Severe infection	2.5 mg/kg/dose q8h	2.5 mg/kg/dose q12h	2.5 mg/kg/dose q 18-24h	2.5 mg/kg/dose q48h	2.5 mg/kg/dose q12h
AMIKACIN⁵	For Normal Renal Function: 15-22.5 mg/kg/day ÷ q8h.				
Mild/mod infection	5 mg/kg/dose q8h	5 mg/kg/dose q12h	5 mg/kg/dose q18-24h	5 mg/kg/dose q48h	5 mg/kg/dose q12h
Severe infection	7.5 mg/kg/dose q8h	7.5 mg/kg/dose q12h	7.5 mg/kg/dose q18-24h	7.5 mg/kg/dose q48h	7.5 mg/kg/dose q12h
AZTREONAM	For Normal Renal Function: 90-120 mg/kg/day ÷ q6-8h. Max Daily Dose = 8 gm.				
Mild/mod infection	22.5-30 mg/kg/dose q6-8h	25 mg/kg/dose q8-12h	25 mg/kg/dose q12h	25 mg/kg/dose q24h	25 mg/kg/dose q8-12h
Severe infection	30 mg/kg/dose q6h	30 mg/kg/dose q8h	30 mg/kg/dose q12h	30 mg/kg/dose q12h	30 mg/kg/dose q8h
CIPROFLOXACIN IV/PO	For Normal Renal Function: 20-30mg/kg/day ÷ q8-12h. Max Daily Dose = 1.2gm IV, 1.5gm PO				
Mild/mod infection	IV: 10 mg/kg/dose q8-12h PO:10mg/kg/dose q12h	10 mg/kg/dose q12h	10 mg/kg/dose q18-24h	10 mg/kg/dose q24h	10mg/kg/dose q12h
Severe infection	IV: 15 mg/kg/dose q8h PO:15mg/kg/dose q12h	15 mg/kg/dose q12h	15 mg/kg/dose q18h	15 mg/kg/dose q24h	10 mg/kg/dose q12h
LEVOFLOXACIN IV/PO	For Normal Renal Function: <= 5 yo 10-20 mg/kg/day ÷ q12h, > 5 yo 5-10 mg/kg/day ÷ q24h. Max Daily Dose = 1 gm				
Mild/mod infection	<= 5 yo 5 mg/kg/dose q12h > 5 yo 5 mg/kg/dose q24h	5 mg/kg/dose q24h	5 mg/kg/dose q24h	5 mg/kg/dose q48h	5 mg/kg/dose q24h
Severe infection	>=5yo 10 mg/kg/dose q12h > 5 yo 10 mg/kg/dose q24h	10 mg/kg/dose q24h	10 mg/kg/dose q24h	10 mg/kg/dose q48h	10 mg/kg/dose q24h
MEROPENEM	For Normal Renal Function: 60-120 mg/kg/day ÷ q8h. Max Daily Dose = 6 gm				
Mild/mod infection	20 mg/kg/dose q8h	20 mg/kg/dose q12h	10 mg/kg/dose q12h	10 mg/kg/dose q24h	10 mg/kg/dose q12h



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Severe infection	25-33 mg/kg/dose q8h	25-33 mg/kg/dose q12h	12.5-17 mg/kg/dose q12h	12.5-17 mg/kg/dose q24h	25-33 mg/kg/dose q12h
Meningitis/CF	40 mg/kg/dose q8h	40 mg/kg/dose q12h	20 mg/kg/dose q12h	20 mg/kg/dose q24h	20 mg/kg/dose q12h
CLINDAMYCIN IV	For Normal Renal Function: 25-40 mg/kg/day ÷ q6-8h. Max Daily Dose = 4.8 gm				
Mild/mod infection	6.25-12.5 mg/kg/dose q6-8h	-----	-----	-----	-----
Severe infection	10-13 mg/kg/dose q6-8h	-----	-----	-----	-----
ERYTHROMYCIN IV/PO	For Normal Renal Function: 24-40 mg/kg/day ÷ q6h (IV), q6-8 (PO). Max Daily Dose = 4 gm				
	IV: 6.25-10 mg/kg/dose q6h	-----	-----	-----	-----
PO: BASE AND EES DOSING	PO: 10-12.5 mg/kg/dose q6-8h	-----	-----	-----	-----
AZITHROMYCIN IV/PO	For Normal Renal Function: Maintenance 5 mg/kg/day ÷ q24h. Max Daily Dose = 500mg IV, 1 gm PO				
	10 mg/kg load, then 5 mg/kg/day q24h	-----	-----	-----	-----
RIFAMPIN IV/PO	For Normal Renal Function: 10-20 mg/kg/day ÷ q12-24h . Max Daily Dose = 1.2 gm				
	5-10 mg/kg/dose q12-24h	-----	-----	-----	-----
QUNIUPRISTIN/DALFOPRISTIN	For Normal Renal Function: 15-22.5 mg/kg/day ÷ q8-12h.				
VRE	7.5 mg/kg/dose q8h	-----	-----	-----	-----
Skin infection	7.5 mg/kg/dose q12h	-----	-----	-----	-----
LINEZOLID IV/PO	For Normal Renal Function: <= 12 yo 30 mg/kg/day ÷ q8h, > 12 yo 20 mg/kg/day ÷ q12h. Max Daily Dose = 1.2 gm				
<=12yo:	10 mg/kg/dose q8h	-----	-----	-----	-----
> 12 yo:	10 mg/kg/dose q12h	-----	-----	-----	-----
METRONIDAZOLE IV/PO	For Normal Renal Function: 20-30 mg/kg/day ÷ q6-8h. Max Daily Dose = 4 gm				
Mild/mod infection	5-7 mg/kg/dose q6-8h	-----	-----	-----	-----
Severe infection	7.5-10 mg/kg/dose q6-8h	-----	-----	-----	-----
ACYCLOVIR IV	For Normal Renal Function: 15-45 mg/kg/day ÷ q8h. Max Daily Dose = 3 gm				
Mild/mod infection	5-8 mg/kg/dose q8h	5-8 mg/kg/dose q12h	5-8 mg/kg/dose q12h	5-8 mg/kg/dose q24h	5 mg/kg/dose q12h
Severe infection	10-15 mg/kg/dose q8h	10-15 mg/kg/dose q12h	10-15 mg/kg/dose q12h	10-15 mg/kg/dose q24h	10 mg/kg/dose q12h
GANCICLOVIR IV (Induction)	For Normal Renal Function: 7.5-10 mg/kg/day ÷ q8-12h.				
	2.5-5 mg/kg/dose q8-12h	2.5 mg/kg/dose q12h	2.5 mg/kg/dose q24h	1.25-2.5 mg/kg/dose q24h	2.5 mg/kg/dose q12h
FOSCARNET (Induction)	For Normal Renal Function: 180 mg/kg/day ÷ q8h.				
	60 mg/kg/dose q8h	55-85 mg/kg/dose q12h	25-55 mg/kg/dose q24h	10-25 mg/kg/dose q24h	55-85 mg/kg/dose q12h
PENTAMIDINE	For Normal Renal Function: 4 mg/kg/day ÷ q24h.				
	4 mg/kg/dose q24h	-----	-----	-----	-----



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AMPHOTERICIN B	For Normal Renal Function: 0.5-1 mg/kg/day ÷ q24h.				
	0.5-1 mg/kg/dose q24h	-----	-----	-----	-----
ABELCET®	For Normal Renal Function: 3-5 mg/kg/day ÷ q24h.				
	3-5 mg/kg/dose q24h	-----	-----	-----	-----
AMBISOME®	For Normal Renal Function: 3-5 mg/kg/day ÷ q24h.				
	3-5 mg/kg/dose q24h	-----	-----	-----	-----
FLUCONAZOLE IV/PO	For Normal Renal Function: 3-12 mg/kg/day ÷ q24h.				
Mucocutaneous	3 mg/kg/dose q24h	-----	1.5 mg/kg/dose q24h	1.5 mg/kg/dose q24h	3 mg/kg/dose q24h
Urinary Tract Infection	3 mg/kg/dose q24h		1.5 mg/kg/dose q24h	1.5 mg/kg/dose q24h	3 mg/kg/dose q24h
Systemic	6-12 mg/kg/dose q24h		3-6 mg/kg/dose q24h	3-6 mg/kg/dose q24h	6 mg/kg/dose q24h
ITRACONAZOLE PO ⁶	For Normal Renal Function: 3-10 mg/kg/day ÷ q12-24h.				
Mild/mod infection	3-5 mg/kg/dose q24h	-----	-----	-----	-----
Severe infection	2.5-5 mg/kg/dose q12h				
VORICONAZOLE IV/PO	For Normal Renal Function: Maintenance dose 8 mg/kg/day ÷ q12h.				
	Load: 6 mg/kg/dose q12h x2	7	7	7	7
	Maint: 4 mg/kg/dose q12h				
CASPOFUNGIN IV	For Normal Renal Function : 50 mg/m²/day q24h, ÷ q24h.				
	50mg/m ² /dose q24h	-----	-----	-----	-----
TMP/SMZ (BACTRIM) IV/PO	For Normal Renal Function : 5-20 mg/kg/day of trimethoprim component ÷ q6-12h (IV), q12h (PO).				
Mild/mod infection	2.5-5 mg/kg/dose q12h	2.5-5 mg/kg/dose q12h	2.5-5 mg/kg/dose q12h	2.5-5 mg/kg/dose q24h	2.5-5 mg/kg/dose q12h
Severe infection	IV: 5-10 mg/kg/dose q6-12h PO: 5-10mg/kg/dose q12h	5-10 mg/kg/dose q8-12h	5-10 mg/kg/dose q8-12h	5-10 mg/kg/dose q24h	5-10 mg/kg/dose q8-12h

- Dosing recommendations may fall outside manufacturer guidelines.
- CrCl (ml/min) = [K X Ht(cm)] / SCr (mg/dl), K = 0.33 low birth wt infants, 0.45 for term infants, 0.55 for girls and children, 0.70 for adolescent boys.
- Schedule dose after hemodialysis; if dosed multiple times daily, schedule subsequent doses after hemodialysis.
- CRRT = Continuous renal replacement therapy, including CVVH, CVVHD, and CVVHDF at a rate of 2000 ml/1.73 m²/hour.
- For consultation with the Pharmacokinetic Service page 9270.**
- Itraconazole IV is non-formulary.
- Recommend oral formulation, IV vehicle (SCECD) can accumulate when CrCl < 50 ml/min. Only use IV formulation if benefit/risk to patient justifies use.

