Neonatal IV Anti-infective Dosing Chart

The purpose of this chart is to assist in empiric dosing strategies for neonates 0-28 days and all patients weighing less than 2 kg. Listed doses take into consideration developing renal function of the newborn. In general, renal dose adjustment for neonates is not needed unless urine output (UOP) is down. Some experts recommend withholding dose adjustments until UOP is < 1 mL/kg/hr for at least 24 hours. SCr values in neonates, especially premature neonates, do not accurately reflect true renal function. Dosing modifications should not be based on rising SCr values alone and should be considered in conjunction with a decrease in urine output. For assistance with dose modifications based on organ dysfunction, please consult the NICU pharmacist.

Weight & Post-natal age	**< 2 kg & 0-7 days**	**< 2 kg & 8-28 days**	**< 2kg & > 28 days**	**≥ 2 kg & 0-7 days**	**≥ 2 kg & 8-28 days**	**Comments**
Acyclovir	20 mg/kg q8h	20 mg/kg q8h	20 mg/kg q8h	20 mg/kg q8h	20 mg/kg q8h	Monitor renal function
Amikacin	Refer to Aminoglycoside Clinical Practice Guideline					
Amphotericin B, conventional	1 mg/kg q24h	1 mg/kg q24h	1 mg/kg q24h	1 mg/kg q24h	1 mg/kg q24h	Preferred formulation
Amphotericin B, lipid formulation	5 mg/kg q24h	5 mg/kg q24h	5 mg/kg q24h	5 mg/kg q24h	5 mg/kg q24h	
Ampicillin	50 mg/kg q12h	75 mg/kg q12h	50 mg/kg q6h	50 mg/kg q8h	50 mg/kg q8h	Bacteremia
Ampicillin, high dose	100 mg/kg q8h	100 mg/kg q8h	75 mg/kg q6h	100 mg/kg q8h	75 mg/kg q6h	Meningitis (300-400 mg/kg/day), endocarditis
Azithromycin	10 mg/kg q24h	10 mg/kg q24h	10 mg/kg q24h	10 mg/kg q24h	10 mg/kg q24h	
Cefazolin	25 mg/kg q12h	25 mg/kg q12h	25 mg/kg q8h	25 mg/kg q8h	25 mg/kg q8h	
Cefepime	30 mg/kg q12h	30 mg/kg q12h	50 mg/kg q8h	50 mg/kg q12h	50 mg/kg q12h	
Cefoxitin	35 mg/kg q12h	35 mg/kg q8h	35 mg/kg q8h	35 mg/kg q12h	35 mg/kg q8h	
Ceftazidime	50 mg/kg q12h	50 mg/kg q8h	50 mg/kg q8h	50 mg/kg q12h	50 mg/kg q8h	
Ceftriaxone*	Not recommended				≥ 14 days: 50 mg/kg q24h	Urinary tract infection or pyelonephritis, acute otitis media
					≥ 14 days: 100 mg/kg q24h	Pneumonia, skin/soft tissue, intra-abdominal infection, bacteremia (except MSSA)
					≥ 14 days: 50 mg/kg q12h	Meningitis, Enterococcal endocarditis, MSSA bacteremia
Clindamycin	5 mg/kg q8h	5 mg/kg q8h	10 mg/kg q8h	7 mg/kg q8h	10 mg/kg q8h	

*Use not recommended in < 2 kg OR < 14 days old. Other contraindications exist based on bilirubin, postmenstrual age, and concomitant IV calcium.

Weight & Post-natal age	< 2 kg & 0-7 days	< 2 kg & 8-28 days	< 2kg & > 28 days	≥ 2 kg & 0-7 days	≥ 2 kg & 8-28 days	Comments
Fluconazole, prophylaxis	6 mg/kg twice weekly	6 mg/kg twice weekly	6 mg/kg twice weekly	6 mg/kg twice weekly	6 mg/kg twice weekly	
Fluconazole, treatment	12 mg/kg q24h	12 mg/kg q24h	12 mg/kg q24h	12 mg/kg q24h	12 mg/kg q24h	Loading dose 25 mg/kg followed 24h later by maintenance dose listed
Ganciclovir	6 mg/kg q12h	6 mg/kg q12h	6 mg/kg q12h	6 mg/kg q12h	6 mg/kg q12h	Monitor renal function
Gentamicin	Refer to Aminoglycoside Clinical Practice Guideline					
Meropenem	20 mg/kg q12h	20 mg/kg q8h	20 mg/kg q8h	20 mg/kg q8h	20 mg/kg q8h	e.g., sepsis, IAI
Meropenem, high dose	40 mg/kg q12h	40 mg/kg q8h	40 mg/kg q8h	40 mg/kg q8h	40 mg/kg q8h	e.g., meningitis, bacteria with high MIC
Metronidazole	7.5 mg/kg q12h	7.5 mg/kg q12h	10 mg/kg q8h	7.5 mg/kg q8h	10 mg/kg q8h	Loading dose 15 mg/kg followed by maintenance dose listed 24h after
Micafungin	10 mg/kg q24h	10 mg/kg q24h	10 mg/kg q24h	10 mg/kg q24h	10 mg/kg q24h	Limited data available, doses up to 15 mg/kg have been reported
Nafcillin or oxacillin	25 mg/kg q12h	25 mg/kg q8h	37.5 mg/kg q6h	25 mg/kg q8h	25 mg/kg q6h	
Nafcillin or oxacillin, high dose	50 mg/kg q12h	50 mg/kg q8h	50 mg/kg q6h	50 mg/kg q8h	50 mg/kg q6h	e.g., CNS infection
Penicillin G	50,000 units/kg q12h	50,000 units/kg q8h	50,000 units/kg q8h	50,000 units/kg q12h	50,000 units/kg q8h	Congenital syphilis, GBS sepsis (not meningitis)
Penicillin G, high dose	150,000 units/kg q8h	125,000 units/kg q6h	125,000 units/kg q6h	150,000 units/kg q8h	125,000 units/kg q6h	GBS meningitis
Piperacillin/ tazobactam	100 mg/kg q8h	100 mg/kg q8h	100 mg/kg q8h	100 mg/kg q8h	100 mg/kg q8h	Based on piperacillin component
Rifampin	10 mg/kg q24h	15 mg/kg q24h	15 mg/kg q24h	10 mg/kg q24h	15 mg/kg q24h	Monotherapy not recommended
Tobramycin	Refer to Aminoglycoside Clinical Practice Guideline					
Vancomycin	Refer to Vancomycin Clinical Practice Guideline					

References:

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