

UCSF Benioff Children's Hospital

Antimicrobial Dosing Guideline for Neonates < 45 weeks Postmenstrual Age

Antimicrobial Stewardship Program (ASP)	M-F 8:00 am to 4:30 pm for focused questions on antimicrobial selection, dose, monitoring, duration of therapy and for approvals (Voalte: Pediatric Antimicrobial Stewardship Team - ID/ASP Pharmacist or Provider)	OAK/SF: Contact via Voalte
Pediatric ID Consult Service	For cases requiring in depth review and physician consultation please contact ID	
Online Resources	Pediatric Empiric Antimicrobial Therapy Guidelines , Clinical Pathways, Detailed Guidelines, Antimicrobial Susceptibility Profiles	idmp.ucsf.edu
Neonatal Antibiotic Renal Dosing		

Drug	Postmenstrual age (PMA equivalent to gestational age plus postnatal age)	Postnatal Age	Usual Dose
Acyclovir IV	< 45 weeks	ALL	20 mg/kg/dose q8h
Ampicillin IV (non-meningitis)	<= 34 weeks	<= 7 days	50 mg/kg/dose q12h
	<= 34 weeks	> 7 days	75 mg/kg/dose q12h
	> 35 to < 45 weeks	ALL	50 mg/kg/dose q8h
Ampicillin IV (meningitis)	< 45 weeks	<= 7 days	100 mg/kg/dose q8h
		> 7 days	75 mg/kg/dose q6h
Azithromycin IV/PO	< 45 weeks	ALL	10 mg/kg/dose q24h
Cefazolin IV	<= 29 weeks	0 to 28 days	25 mg/kg/dose q12h
		> 28 days	25 mg/kg/dose q8h
	30 to 36 weeks	0 to 14 days	25 mg/kg/dose q12h
		> 14 days	25 mg/kg/dose q8h
	37 to < 45 weeks	0 to 7 days	25 mg/kg/dose q12h
		> 7 days	25 mg/kg/dose q8h
Cefepime IV Note: same dosing for	< 45 weeks	<= 28 days	50 mg/kg/dose q12h
		> 28 days	50 mg/kg/dose q8h
Ceftriaxone IV	May be considered in neonates >= 41 weeks corrected GA and > 14 days post-natal age without hyperbilirubinemia or any anticipated calcium containing solutions within 48 hours of ceftriaxone therapy. Consult pharmacist for verification criteria and dosing guidance.		
Ceftazidime IV Note: same dosing for meningitis	<= 29 weeks	0 to 28 days	50 mg/kg/dose q12h
		> 28 days	50 mg/kg/dose q8h
	30 to 36 weeks	0 to 14 days	50 mg/kg/dose q12h
		> 14 days	50 mg/kg/dose q8h
	37 to < 45 weeks	0 to 7 days	50 mg/kg/dose q12h
		> 7 days	50 mg/kg/dose q8h
Clindamycin IV/PO	<= 29 weeks	0 to 28 days	7.5 mg/kg/dose q12h
		> 28 days	7.5 mg/kg/dose q8h
	30 to 36 weeks	0 to 14 days	7.5 mg/kg/dose q12h
		> 14 days	7.5 mg/kg/dose q8h
	37 to < 45 weeks	0 to 7 days	7.5 mg/kg/dose q12h
		> 7 days	7.5 mg/kg/dose q8h
Fluconazole IV/PO Treatment: LOAD 25 mg/kg/dose X1, followed by maintenance dose	<= 29 weeks	0 to 14 days	Prophylaxis: 6 mg/kg/dose q48h Treatment: 12 mg/kg/dose q48h
		> 14 days	Prophylaxis: 6 mg/kg/dose q24h Treatment: 12 mg/kg/dose q24h
	> 29 to < 45 weeks	0 to 7 days	Prophylaxis: 6 mg/kg/dose q48h Treatment: 12 mg/kg/dose q48h

		> 7 days	Prophylaxis: 6 mg/kg/dose q24h Treatment: 12 mg/kg/dose q24h
Gentamicin IV or Tobramycin IV Use a longer dosing interval for neonates with HIE or significant asphyxia e.g. increase from q24h to q36h Monitoring: Oak: contact pharm for dosing adjustments SF: dosing per pharm	<= 29 weeks	0 to 7 days	5 mg/kg/dose q48h
		8 to 28 days	4 mg/kg/dose q36h
		> 28 days	4 mg/kg/dose q24h
	30 to 34 weeks	0 to 7 days	4.5 mg/kg/dose q36h
		> 7 days	4 mg/kg/dose q24h
	35 to < 45 weeks	ALL	4 mg/kg/dose q24h
Meropenem IV	< 32 weeks	< 14 days	Non-meningitis: 20 mg/kg/dose q12h Meningitis: 40 mg/kg/dose q12h
		>= 14 days	Non-meningitis: 20 mg/kg/dose q8h Meningitis: 40 mg/kg/dose q8h
	>= 32 to < 45 weeks	ALL	Non-meningitis: 20 mg/kg/dose q8h Meningitis: 40 mg/kg/dose q8h
Metronidazole IV/PO LOAD 15 mg/kg/dose X1, followed 8 to 12 hours later with maintenance dose	<= 25 weeks	ALL	7.5 mg/kg/dose q24h
	26 to 27 weeks	ALL	10 mg/kg/dose q24h
	28 to 33 weeks	ALL	7.5 mg/kg/dose q12h
	34 to 40 weeks	ALL	7.5 mg/kg/dose q8h
	> 41 to < 45 weeks	ALL	10 mg/kg/dose q8h
Nafcillin IV or Oxacillin IV	<= 29 weeks	0 to 28 days	Non-meningitis: 25 mg/kg/dose q12h Meningitis: 50 mg/kg/dose q12h
		> 28 days	Non-meningitis: 25 mg/kg/dose q8h Meningitis: 50 mg/kg/dose q8h
	30 to 36 weeks	0 to 14 days	Non-meningitis: 25 mg/kg/dose q12h Meningitis: 50 mg/kg/dose q12h
		> 14 days	Non-meningitis: 25 mg/kg/dose q8h Meningitis: 50 mg/kg/dose q8h
	37 to < 45 weeks	0 to 7 days	Non-meningitis: 25 mg/kg/dose q12h Meningitis: 50 mg/kg/dose q12h
		> 7 days	Non-meningitis: 25 mg/kg/dose q8h Meningitis: 50 mg/kg/dose q8h
Penicillin G IV (aqueous) congenital syphilis and non-meningitis	< 45 weeks	<= 7 days	50,000 units/kg/dose q12h
		> 7 days	50,000 units/kg/dose q8h
Penicillin G IV (aqueous) meningitis	< 45 weeks	<= 7 days	150,000 units/kg/dose q8h
		> 7 days	125,000 units/kg/dose q6h
Piperacillin and Tazobactam IV (Dose for piperacillin component)	<= 29 weeks	0 to 28 days	100 mg/kg/dose q12h
		> 28 days	100 mg/kg/dose q8h
	30 to 36 weeks	0 to 14 days	100 mg/kg/dose q12h
		> 14 days	100 mg/kg/dose q8h
	37 to < 45 weeks	0 to 7 days	100 mg/kg/dose q12h
		> 7 days	100 mg/kg/dose q8h
Sulfamethoxazole and Trimethoprim (Bactrim/Septa)	Not usually recommended < 48 weeks PMA		
Vancomycin IV Oak: contact pharm for dosing adjustments SF: dosing per pharm	<= 29 weeks	ANY	10 mg/kg/dose q12h
	30 to 36 weeks	ANY	12.5 mg/kg/dose q12h
	37 to < 45 weeks	ANY	15 mg/kg/dose q12h