

Neonatal Drug Guidelines
UCSF Benioff Children's Hospital
 2019 – 2021

<u>Drug</u>	<u>Dose</u>	<u>Interval</u>	<u>Mode</u>
Antibacterials/Antifungals/Antivirals:			
Acyclovir	20 mg/kg/dose	q 8 hours	IV
Amphotericin	Conventional (Fungizone®)	1 mg/kg/dose	q 24 hours
	Liposomal (Ambisome®)	5 mg/kg/dose	q 24 hours
Ampicillin	Meningitis	100 mg/kg/dose	see Interval A
	Non-meningitis	50 mg/kg/dose	see Interval A
Azithromycin	(pertussis)	10 mg/kg/dose	q 24 hours x 5 days
Cefazolin	25 mg/kg/dose	see Interval B	IV
Cefepime		50 mg/kg/dose	q 12 hours
	Meningitis		q 8 hours
Cefotaxime	50 mg/kg/dose	see Interval A	IV
	Meningitis	see Interval C	IV
Ceftriaxone	<i>May be considered in neonates ≥ 41 weeks corrected GA and > 14 days PNA without hyperbilirubinemia or any anticipated calcium containing IV solutions within 48 hours of ceftriaxone therapy. Consult pharmacist for verification of criteria and dosing guidance.</i>		
Ceftazidime	50 mg/kg/dose	see Interval B	IV
Clindamycin	see Column E	q 8 hours	IV
Fluconazole	Treatment	LOAD 25 mg/kg x1, then 12 mg/kg/dose	q 24 hours
	Prophylaxis	6 mg/kg/dose:	
		≤ 29 wks corr. GA & ≤ 28 d PNA:	q 72 hours
> 29 wks corr. GA or > 28 d PNA:	q 48 hours		
Gentamicin and Tobramycin	see chart at bottom for dosing and interval		IV
Meropenem	20 mg/kg/dose (40 mg/kg/dose for meningitis/pseudomonas)	< 32 weeks GA & < 14 days PNA	q 12 hours
		> 32 weeks GA or ≥ 14 days PNA	q 8 hours
			IV
Metronidazole	LOAD 15 mg/kg x1,	≤ 33 weeks corr. GA: 7.5 mg/kg/dose	q 12 hours
	followed 8-12 hours later by:	34-40 weeks corr. GA: 7.5 mg/kg/dose	q 8 hours
		≥ 41 weeks corr. GA: 10 mg/kg/dose	q 8 hours
Nafcillin	50 mg/kg/dose	see Interval A	IV
PenicillinG (aq) congenital syphilis:	50,000 units/kg/dose x 10 days	see Interval A	IV
Piperacillin/tazobactam	Sepsis: 80 mg piperacillin/kg/dose	see Interval C	IV
	Pseudomonas: 100 mg piperacillin/kg/dose		
TMP/SMX (Bactrim/Septtra)	<i>Generally avoided ≤44 weeks corrected Gestational Age</i>		
Vancomycin	≤ 29 wks corr. GA: 10 mg/kg/dose	q 12 hours	
	> 29 wks corr. GA: 15 mg/kg/dose	see Interval D	IV

Corrected Gestational age (weeks)	Postnatal age (days)	Interval A	Interval B	Interval C	Interval D	Column E
≤ 29	0 – 28	q 12°	q 12°	q 12°	see drug entry	4 mg/kg/dose
	> 28	q 8°	q 8°	q 8°		
30 – 36	0 – 14	q 12°	q 12°	q 8°	q 12°	6 mg/kg/dose
	> 14	q 8°	q 8°	q 6°	q 8°	
37 – 44	0 – 7	q 12°	q 12°	q 8°	q 12°	8 mg/kg/dose
	> 7	q 8°	q 8°	q 6°	q 8°	
≥ 45	All	q 6°	q 8°	q 6°	q 6°	10 mg/kg/dose

Chart below is for dosing of Gentamicin & Tobramycin ONLY

BIRTH to 1 MONTH

Gestational Age (weeks)	Dose	Interval
≤ 28	3.5 mg/kg/dose	q 36 hours
29 – 34	3.5 mg/kg/dose	q 24 hours
≥ 35	5 mg/kg/dose	q 24 hours (q36h for HIE or significant asphyxia)

> 1 MONTH POSTNATAL

Corrected Gestational Age (weeks)	Dose	Interval
< 35	2.5 mg/kg/dose	q 12 hours
≥ 35		q 8 hours [^]

< 35 week GA: Order Peak/Trough with 4th dose
 ≥ 35 week GA: Order Trough ONLY with 4th dose
 (for HIE or significant asphyxia, P/T with 3rd dose)

[^]Renal or cardiac dysfunction, use 2.5 mg/kg/dose IV q12 to 24 hours

For most current ICN dosing card guidelines: http://carelinks.ucsfmedctr.org/clinical_guidelines.asp

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Anticonvulsants:

Fosphenytoin	20 mg PE/kg (loading)	one time	IV
	5 – 8 mg/kg/day (maintenance)	divided q 8 hours	IV
Levetiracetam (Keppra®)	60 mg/kg (loading)	one time	IV
	10 mg/kg/dose (maintenance)	q8h	IV/PO
Lorazepam (Ativan®)	0.05 – 0.1 mg/kg	may repeat q 5 min x 3 doses	IV
Midazolam Buccal	0.25 – 0.5 mg/kg/dose	may repeat q 5 min if needed	Buccal
Midazolam Bolus/Infusion	0.1 mg/kg IV x 1 dose, then infusion	0.1 mg/kg/hour	IV
Phenobarbital	20 mg/kg (loading)		IV
	3 – 5 mg/kg/day (maintenance)	divided q 12 hours	IV/PO
Phenytoin	5 – 8 mg/kg/day (maintenance)	divided q8 hours	PO

Cardiovascular:

Alprostadil (PGE-1)	0.00625 – 0.1 mcg/kg/min	IV Infusion	IV
Calcium Chloride 10%	20 mg/kg/dose	Code ONLY	IV
Calcium Gluconate	Start at 50 (max 200) mg/kg/dose	q 6 hours	IV
Captopril	Start 0.1 mg/kg/dose x 1 as test dose then q8h as tolerated		PO
Dexmedetomidine	0.05 – 0.6 mcg/kg/hour	IV Infusion	IV
Dopamine/Dobutamine	2.5 – 30 mcg/kg/min	IV Infusion	IV
Epinephrine	0.01 – 0.5 mcg/kg/min	IV Infusion	IV
Hydralazine	0.1 – 0.2 mg/kg/dose	q 6 – 8 hours*	IV
Indomethacin	see Indomethacin order set		
Milrinone	0.25 – 1 mcg/kg/min	IV Infusion	IV
Vasopressin	0.0001 – 0.003 units/kg/min	IV Infusion	IV

Diuretics:

Chlorothiazide (Diuril®)	1 – 4 mg/kg/dose	q 12 hours	IV
	10 – 20 mg/kg/dose	q 12 hours	PO
Furosemide (Lasix®)	0.5 – 1 mg/kg/dose	varies	IV
	1 – 2 mg/kg/dose	varies	PO
Spirolactone (Aldactone®)	1 mg/kg/dose	q 12 hours	PO

Gastrointestinal:

Famotidine (Pepcid®)	0.5 mg/kg/dose	q 12 – 24 hours	IV/PO
Lansoprazole (Prevacid®)	1 mg/kg/dose	q 12 – 24 hours*	PO
Metoclopramide (Reglan®)	0.1 – 0.2 mg/kg/dose	q 6 hours	IV/PO
Ursodiol (Actigall®)	10 mg/kg/dose	q 8 hours	PO

Miscellaneous:

Arginine Chloride	mg = ((0.2 x kg x (103 – Cl)) x 140)	q6h x 1 – 3 doses	IV/PO	
Darbepoetin	10 mcg/kg/dose	once weekly on Mon or Thur	SQ/IV	
Ferrous sulfate	<i>See ICN Iron Supplementation and Monitoring Guidelines for specific dosing</i>			
w/ Darbo	3 – 12 mg/kg/day elemental iron	once or twice daily	PO	
w/o Darbo	0 – 4 mg/kg/day elemental iron	once or twice daily	PO	
Iron Dextran	0.1 – 0.2 mg/kg/day	once daily	IV	
Iron Sucrose	Pre-term w/Darbo	6 mg/kg/dose	once weekly on Mon or Thur	IV
	Pre-term or Term w/o Darbo	3 mg/kg/dose	once weekly on Mon or Thur	IV
Sodium Bicarbonate	Dose (mEq) = base deficit (mEq/L) x (0.3 x kg)		IV	

Paralytics:

Rocuronium	1 mg/kg/dose	q 1 – 2 hours prn movement*	IV
Vecuronium	0.1 mg/kg/dose	q 1 – 2 hours prn movement*	IV

Respiratory:

Caffeine citrate	20 mg/kg/dose (loading dose)		PO
	5 – 10 mg/kg/dose (maintenance)	q 24 hours	PO
Poractant Alfa (Curosurf®)	2.5 mL/kg/dose, repeat dose	1.25 mL/kg/dose x 2 q 12 hours	ETT
Racemic Epinephrine 2.25%	0.25 mL diluted in 3 mL NS	q 1 hour, max 4 doses	IH

Sedation/Analgesia:

IV Acetaminophen:	10 mg/kg (PMA wks <33=q12h; 33-36=q8h; ≥37=q6h)		IV
Fentanyl	1 – 2 mcg/kg/dose	q 1 hour prn	IV
	1 mcg/kg/hour	IV Infusion	IV
Lorazepam (Ativan®)	0.05 – 0.1 mg/kg/dose	q 6 – 8 hours prn*	IV/PO
Midazolam (Versed®)	0.05 – 0.1 mg/kg/dose	q 2 – 4 hours prn*	IV
	0.25 mg/kg/dose	x 1 dose for procedure	PO
Morphine (Duramorph®)	0.05 – 0.1 mg/kg/dose	q 2 – 6 hours prn*	IV
	10 – 30 mcg/kg/hr	IV infusion	IV
Naloxone	Oversedation = 1 – 5 mcg/kg/dose, Code Dose = 0.1 mg/kg/dose		IV
Pentobarbital	1 – 2 mg/kg/dose, may repeat	for procedure	IV

References:

Taketomo et al.: Pediatric Dosage Handbook, ed. 25, 2018-2019, Young and Mangum: Neofax, Accessed 2019.
University of California San Francisco Intensive Care Nursery Housestaff Manual, ed. 8, 2003.
Please contact Sarah Scarpace Lucas, PharmD, Jonathan Faldasz, PharmD, for questions related to dosing card content

* Order must be entered with a single dosing time interval