

### Intravenous Antibiotic Dosing for Children in Theatres - March 2015

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Original Author: Chloe Benn, 2005.

These are standard doses; adjustments may need to be made depending on the clinical condition of the patient. To be used for all term infants over 4 weeks old and PCA > 41 weeks.

Drug	Age	Dose	Frequency	Administration
				All compatible with 0.9% sodium chloride, 5% glucose, and water for injection (WFI) unless specified
Amikacin	1 month - 18 years	15mg/kg (max 1.5g daily)	24 hourly	Dilute to 2.5mg/mL and infuse over 30 – 60 minutes. Check renal function. Use ideal body weight if patient is over-weight. <b>Do not dilute with WFI.</b>
Benzylpenicillin	1 month - 18 years	25mg/kg (max 2.4g)	6 hourly	50mg/kg in severe infection every 4 - 6 hours. (Maximum dose 2.4g every 4 hours). For 50mg/kg: Dilute each 600mg with at least 10mL and infuse over at least 30 minutes.
Cefuroxime	1 month -18 years	50mg/kg (max 1.5g STAT)	8 hourly (Maximum 750mg)	Increase to 50 – 60mg/kg (max 1.5mg) every 6 - 8 hours in severe infection. Max conc 100mg/mL. Bolus over 3 – 5 minutes.
Co-amoxiclav (Augmentin®)	1 - 3 months	30mg/kg	12 hourly	Max conc 60mg/mL Bolus over 3 - 5 minutes.
	3 months -18 years	30mg/kg (max 1.2g)	8 hourly	Can further dilute to 5-10 mL with Water For Injections <b>Incompatible with glucose.</b>
Flucloxacillin	1 month - 18 years	12.5mg - 25mg/kg (max 1g)	6 hourly	Dose doubled in severe infections. Max conc 50mg/mL Bolus over 3 - 5 minutes
Metronidazole	1 - 2 month	15mg/kg as a single load, followed after 8 hours by 7.5mg/kg 8 hourly	8 hourly	Max conc 5mg/mL. Infuse over 20-30 minutes. Dilution not required.
	2 months -18 years	7.5mg/kg (max 500mg)	8 hourly	
Teicoplanin	1 month -18 years	10mg/kg (max 400mg) every 12 hours for 3 doses then 6mg/kg 24 hourly (max 400mg)	Every 12 hours for 3 doses then move to next dose of 6mg/kg 24 hourly	Max conc 400mg/3mL. Bolus over 5 minutes. In severe infections or in neutropenia, initially 10mg/kg (max 400mg) every 12 hours for 3 doses then 10mg/kg (max 400mg) 24 hourly.
Vancomycin	1 month -18 years	15mg/kg	8 hourly (max 2g in 24 hours)	Dilute up to 5mg/mL and infuse over at least 1 hour (max 1mg/min for doses over 500mg). Check renal function. <b>Do not dilute with WFI.</b>

Advice is available from pharmacy bleep 1063/1135 ext. 60133/60132

Note for obese patients dose should be according to adjusted body weight or ideal body weight

**Red colour:** are contra-indicated in all patients with a true penicillin allergy – mild or severe reaction.

**Orange colour:** should be avoided in patients with severe reactions to penicillins (immediate or delayed).

**Green colour:** are safe to use in all forms of penicillin allergy.

#### References:

BNFc online Dec 14

BLT paediatric IV monographs

Guys and St Thomas' King College and University Lewisham Hospital's Paediatric formulary 8<sup>th</sup> edition