

ANTIBIOTICS

Neonatal dosing to be used till post conceptual age (PCA) of 44 weeks.

PCA is equivalent to gestational age + postnatal age. For example, for a baby born at 28 weeks gestation and is now 21 days old, the PCA would be 31 weeks.

For PCA above 45 weeks, please refer to the dosing indicated for child.

All routes are intravenous (IV) unless otherwise specified.

Drug	Dosing	Remarks
Ampicillin	<p>Neonates: 50mg/kg/dose, interval depends on PMA</p> <p>PCA \leq 29 wk: (\leq 28 days: q12h, $>$28 days: q8h)</p> <p>PCA 30-36wk: (\leq 14 days: q12h, $>$14 days: q8h)</p> <p>PCA 37-44wk: (\leq 7 days: q12h, $>$7 days: q8h)</p> <p>Child: 25-37.5mg/kg/dose q6h</p> <p>50mg/kg for single dose cardiac prophylaxis</p>	

PAEDIATRIC ANAESTHESIA

Drug	Dosing	Remarks
Amikacin	<p>Neonates</p> <p>PCA \leq 29 wk:</p> <p style="padding-left: 40px;">\leq 7 days: 18mg/kg q48h</p> <p style="padding-left: 40px;">8-28 days: 15mg/kg q36h</p> <p style="padding-left: 40px;">\geq 29 days: 15mg/kg q24h</p> <p>PCA 30-34 wk:</p> <p style="padding-left: 40px;">\leq 7 days: 18mg/kg q36h</p> <p style="padding-left: 40px;">\geq 8 days: 15mg/kg q24h</p> <p>PCA 35-44wk:</p> <p style="padding-left: 40px;">15mg/kg q24h</p> <p>Child: 15-22.5mg/kg/day q8-12h</p> <p>Adult: 15mg/kg/day q8-12h (max 1.5g/day)</p>	<p>Infuse over 30-60min.</p> <p><u>Therapeutic levels:</u></p> <p>Target peak: 30-40 μg/ml</p> <p>Target trough: $<10\mu$g/ml</p> <p>(*ideal trough: 4-5μg/ml, especially if existing nephrotoxic drugs or poor renal function)</p>

PAEDIATRIC ANAESTHESIA

Drug	Dosing	Remarks
Augmentin	<p>Neonates: <7 days: 30mg/kg q12h (based on Co-amoxiclav) ≥7 days: 30mg/kg q8h (based on Co-amoxiclav)</p> <p>Child: 30mg/kg/dose q8h (up to 40mg/kg/dose q8h)</p>	
Cefazolin	<p>Neonates: 25mg/kg/dose < 2kg: (≤7 days q12h; >7 days q12h) > 2kg: (≤7 days q12h; >7 days q8h)</p> <p>Child: 25-30mg/kg/dose q6-8h</p>	
Ceftazidime	<p>Neonates: 50mg/kg/dose, interval depends on PMA PCA ≤ 29 wk: (≤ 28 days: q12h, >28 days: q8h) PCA 30-36wk: (≤ 14 days: q12h, >14 days: q8h) PCA 37-44wk: (≤ 7 days: q12h, >7 days: q8h)</p> <p>Child: 30-50mg/kg/dose q8h for mild-moderate infections 60-100mg/kg/dose q8h for severe infections/ meningitis</p>	

PAEDIATRIC ANAESTHESIA

Drug	Dosing	Remarks
Ceftriaxone	<p>Neonates: <2kg: 50mg/kg/dose q24h ≥2kg: (≤7 days) 50mg/kg/dose q24h (>7 days) 75mg/kg/dose q24h</p> <p>Child: 25-50mg/kg q12-24h 100mg/kg/day q12-24h for meningitis (max 2g q12h)</p>	
Ciprofloxacin	Child: 10-15mg/kg/dose q12h	
Clindamycin	<p>Neonates: 5mg/kg/dose, interval depends on PMA PCA ≤ 29 wk: (≤ 28 days: q12h, >28 days: q8h) PCA 30-36wk: (≤ 14 days: q12h, >14 days: q8h) PCA 37-44wk: (≤ 7 days: q12h, >7 days: q8h)</p> <p>Child: 5mg/kg/dose q6-8h Adult: 600mg-1.2g/day</p>	

PAEDIATRIC ANAESTHESIA

Drug	Dosing	Remarks
Cloxacillin	<p>Neonates: < 2kg: (≤ 7 days) 50mg/kg q12h (>7 days) 50mg/kg q8h > 2kg: (≤ 7 days) 50mg/kg q8h (>7 days) 50mg/kg q6h</p> <p>Child: 25mg/kg/dose q6h 50mg/kg/dose q6h in meningitis</p>	
Erythromycin	<p>Neonates: 10mg/kg/dose < 1kg: (≤ 14 days q12h; 15-28 days q8h) ≥ 1kg: (≤ 7 days q12h; 8-28 days q8h)</p> <p>Child: 10-12.5mg/kg/day q6h</p>	IV infusion over 30-60min.

PAEDIATRIC ANAESTHESIA

Drug	Dosing	Remarks
Gentamicin	<p>Neonates</p> <p>PCA \leq 29 wk:</p> <p style="padding-left: 40px;">\leq 7 days: 5mg/kg q48h</p> <p style="padding-left: 40px;">8-28 days: 4mg/kg q36h</p> <p style="padding-left: 40px;">\geq 29 days: 4mg/kg q24h</p> <p>PCA 30-34 wk:</p> <p style="padding-left: 40px;">\leq 7 days: 4.5mg/kg q36h</p> <p style="padding-left: 40px;">\geq 8 days: 4mg/kg q24h</p> <p>PCA 35-44wk: 4mg/kg q24h</p> <p>Child: 2-2.5mg/kg q8h</p> <p style="padding-left: 40px;">5mg/kg q24h for uncomplicated UTI over 1month old</p>	<p>Infuse over 30-60min.</p> <p>Do not mix with ampicillin.</p> <p><u>Therapeutic levels:</u></p> <p>Target peak: 8-10 μg/ml</p> <p>Target trough: <2 μg/ml (ideal trough: <1 μg/ml, especially if nephrotoxic drugs or poor renal function)</p>
Imipenem	<p>Child: 15-25mg/kg q6h (max 4g/day)</p>	<p>May cause convulsions, adjust dose in renal dysfunction</p>

PAEDIATRIC ANAESTHESIA

Drug	Dosing	Remarks
Meropenem	<p>Neonate: 20mg/kg/dose, interval depends on PMA PCA < 32wk: (≤ 14 days: q12h, >14 days: q8h) PCA ≥ 32wk: (≤ 7 days: q12h, >7 days: q8h)</p> <p>Child: 20mg/kg q8h 40mg/kg q8h for meningitis</p>	
Metronidazole	<p>Neonate: Loading dose 15mg/kg Maintenance dose 7.5mg/kg/dose, dosing interval depending on PCA PCA ≤ 29 wk: (≤ 28 days: q48h, >28 days: q24h) PCA 30-36wk: (≤ 14 days: q24h, >14 days: q12h) PCA 37-44wk: (≤ 7 days: q24h, >7 days: q12h)</p> <p>Child: 7.5-10mg/kg q6-8h</p>	

PAEDIATRIC ANAESTHESIA

Drug	Dosing	Remarks
Piperacillin/ Tazobactam (Tazocin)	<p>Neonates: 50-100mg (piperacillin) /kg/dose PCA ≤ 29 wk: (≤ 28 days: q12h, >28 days: q8h) PCA 30-36wk: (≤14 days: q12h, >14 days: q8h) PCA 37-44wk: (≤7 days: q12h, >7 days: q8h)</p> <p>Child: <2 months: 80mg Piperacillin /kg/dose q8h ≥2 months: 80mg Piperacillin /kg/dose q6h</p>	
Vancomycin	<p>Neonates: 15mg/kg/dose PCA ≤ 29 wk: (≤ 14 days: q18h, >14 days: q12h) PCA 30-36wk: (≤14 days: q12h, >14 days: q8h) PCA 37-44wk: (≤7 days: q12h, >7 days: q8h)</p> <p>Child: 15mg/kg/dose q6h</p> <p>Adult: 2-4g/day q6-12h</p>	<p>Each dose to be infused over 60min.</p> <p><u>Therapeutic levels:</u> Peak: 30-40 µg/ml Trough: 15-20 µg/ml (complicated infections); 10-15 µg/ml (others)</p>

References:

1. KKH Neonatal Drug Dosing Booklet, 3rd edition (2014), available on KKH intranet
2. KKH Paediatric Medicine Clinical Guidelines, Appendix - Drugs – Infections (March 2015), available on KKH intranet