

Displacement values and reconstitution guidelines for common antibiotics in the Children's Hospital

Antibiotic	Reconstitution with water for injection	Concentration of reconstituted solution	Extra information
Aciclovir <i>All brands</i>	250mg – 10ml	25mg/ml	<p>Must be diluted further with sodium chloride 0.9% or glucose 5% to maximum concentration of 5mg/ml</p> <p>Infuse all doses over 60 minutes</p> <p>If total dose is a whole vial use ecoflac device unless fluid volume too large.</p> <p>Order subsequent doses from pharmacy.</p>
Amoxicillin <i>All brands</i>	250mg - 4.8ml 500mg – 9.6ml	50mg/ml	<p>Doses over 30mg/kg must be infused over 30 minutes</p> <p>May be diluted further with sodium chloride 0.9% if necessary</p> <p>If whole vial use ecoflac device unless fluid volume too large. Shake vigorously. A transient pink colour may develop during reconstitution but the product may still be used. Use reconstituted solution immediately.</p>
	250mg – 2.3ml 500mg – 4.6ml	100mg/ml <u>(Neonate Only)</u>	
Benzylpenicillin <i>All brands</i>	600mg - 5.6ml 1200mg - 11.2ml	100mg/ml	<p>Further dilute to a concentration of at least 60mg in 1mL using glucose 5% or sodium chloride 0.9% when giving as an infusion.</p> <p>Doses of 25mg/kg bolus over 3-5 mins</p> <p>Doses of doses greater than or equal to 50mg/kg to be infused over 15-30 mins If whole vial use ecoflac device unless fluid volume too large.</p>

Cefotaxime <i>All brands</i>	500mg – 4.8ml	100mg/ml	<p>Further dilution not required. However, Cefotaxime has a high osmolality. When administering cefotaxime to neonates and small infants, consider diluting to a concentration of 50mg in 1mL to reduce the risk of adverse effects.</p> <p>Where giving an infusion, dilute appropriate dose with glucose 5% or sodium chloride 0.9% to 20mg in 1mL.</p> <p>If whole vial use ecoflac device unless fluid volume too large.</p>
	1000mg – 4.5ml 2000mg – 8.8ml	200mg/ml	
Cefuroxime <i>All brands</i>	750mg - 7ml 1500mg - 14ml	100mg/ml	<p>Further dilution not required.</p> <p>Administer as a slow IV bolus over 3-5 mins</p> <p>If whole vial use ecoflac device unless fluid volume too large.</p>
Ceftriaxone <i>All brands</i>	1g – 9.3ml 2g – 18.7ml	100mg/ml	<p>Must be diluted further with sodium chloride 0.9% to a maximum concentration of 50mg/ml.</p> <p>Infuse all doses over 30 minutes UNLESS administering to a neonate, whereby infusion must go over 60 minutes.</p> <p>If whole vial use ecoflac device unless fluid volume too large.</p>
Co-amoxiclav <i>All brands</i>	600mg - 9.6ml 1200mg - 19.3ml	60mg/ml	<p>Further dilution not required. A transient pink colouration may develop during reconstitution, the product is safe to use.</p> <p>Administer as a slow IV bolus over 3-5 minutes</p> <p>Administration via IV bolus is unlicensed in children under 3 months, consider giving as infusion.</p> <p>Infusion: Dilute the required amount of reconstituted solution to a concentration of 10mg in</p>

			<p>1mL with sodium chloride 0.9%</p> <p>Dilute and give over 30-40 minutes using an infusion pump. If whole vial use ecoflac device unless fluid volume too large.</p>
<p>Flucloxacillin <i>All brands</i></p>	<p>250mg - 4.8ml</p> <p>500mg – 9.6ml</p> <p>1000mg - 19.4ml</p>	<p>50mg/ml</p>	<p>Reconstitute with water for injections</p> <p>Administer doses ≤1000mg as slow IV bolus over 3-5 minutes.</p> <p>Doses >1000mg give as an IV infusion, give over 30-60 minutes using an infusion pump.</p> <p>For an IV infusion, Dilute the required dose with sodium chloride 0.9%, glucose 5% or glucose 10% to a convenient volume (concentration not critical).</p> <p>If whole vial use ecoflac device unless fluid volume too large.</p> <p>Flush with Sodium chloride 0.9%</p>
<p>Piperacillin & tazobactam <i>All brands</i></p>	<p>2.25g – 8.4ml</p> <p>4.5g – 17ml</p>	<p>225mg/ml</p>	<p>Must be diluted further with sodium chloride 0.9% to a concentration between 15-90mg/ml</p> <p>Swirl until dissolved. When swirled constantly, reconstitution generally occurs within 5-10 minutes</p> <p>Infuse all doses over 30 minutes</p> <p>If whole vial use ecoflac device unless fluid volume too large.</p> <p>Order subsequent doses from pharmacy unless full vials being used.</p>

Not all antibiotics listed will be kept as stock on all wards
If an antibiotic is not listed please contact pharmacy for advice