

# CEFOTAXIME

<b>Trade Name</b>	DBL Cefotaxime for Injection (Hospira)											
<b>Class</b>	3rd generation cephalosporin antibiotic.											
<b>Mechanism of Action</b>	Inhibits bacterial cell wall synthesis											
<b>Indications</b>	<p>Bacterial sepsis caused by sensitive organisms</p> <p>Good for Gram negative bacilli, moderate for Strep, poor for Staph.</p> <p>Ineffective against Listeria monocytogenes and Enterococci, therefore use in conjunction with amoxicillin.</p>											
<b>Contraindications</b>	Known allergy to cefotaxime. Caution in severe renal failure.											
<b>Supplied As</b>	0.5g powder vial 1g powder vial											
<b>Dilution for DBL Cefotaxime Sodium for Injection (HOSPIRA BRAND and PFIZER BRAND)</b>	<b>IV and IM:</b>											
	IV - Use Water as the diluent IM - Use 1% Lignocaine as the diluent											
	<b>Vial</b>	<b>Diluent Added</b>	<b>Final Volume</b>									
	1g	3.6mL**	4mL									
	** Displacement value of 1g = 0.4mL (Hospira & Pfizer brands)											
	<p><b>Note:</b> the displacement value for cefotaxime may vary depending on the brand being used, if you think there has been a change in brand check with Pharmacy.</p>											
<b>Dosage</b>	50 mg/kg/dose											
<b>Interval</b>	<table border="1"> <thead> <tr> <th></th> <th>Day 0-7</th> <th>Day ≥8</th> </tr> </thead> <tbody> <tr> <td><b>Sepsis</b></td> <td>12 hrly</td> <td>8 hrly</td> </tr> <tr> <td><b>Meningitis</b></td> <td>8 hrly</td> <td>6 hrly</td> </tr> </tbody> </table>				Day 0-7	Day ≥8	<b>Sepsis</b>	12 hrly	8 hrly	<b>Meningitis</b>	8 hrly	6 hrly
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<b>Administration</b>	<p><b>IV:</b> Slow push</p> <p><b>IM:</b> Inject dose into a large muscle (buttock, thigh)                  IM dose volume should be kept between 0.5-1ml if possible to decrease the pain for the baby                  See IM drug guideline in Drugs folder and Handbook</p>											

<b>Compatible With</b>	<p>Dextrose 5%, dextrose 10%, lactated ringers solution, sodium chloride 0.9%, water for injection.</p> <p><b>Y –site:</b> acyclovir, adrenaline, alprostadil, amikacin*, aztreonam, benzylpenicillin, caffeine citrate, calcium gluconate, cimetidine, clindamycin, dexamethasone, dexmedetomidine, digoxin, dopamine, erythromycin, famotidine, furosemide, gentamicin*, heparin, hydrocortisone, insulin, lignocaine 1%, lorazepam, magnesium sulfate, metoclopramide, metronidazole, midazolam, milrinone, morphine, noradrenaline, octreotide, ondansetron, pancuronium, pethidine, piperacillin potassium chloride, propofol, and remifentanil, tobramycin*, TPN, vasopressin.</p> <p>*Note: Literature reports on compatibility of aminoglycoside antibiotics with cefotaxime are conflicting. Micromedex lists amikacin, gentamicin and tobramycin as being compatible with cefotaxime via Y-site connection however direct mixing of these agents in a syringe or bag should be avoided</p>
<b>Incompatible With</b>	<p>Alkaline solutions e.g. sodium bicarbonate</p> <p><b>Y site:</b> aminophylline, amiodarone, amphotericin, azithromycin, co-trimoxazole, dobutamine, fluconazole, ganciclovir, phenobarbital, phentolamine, phenytoin, protamine sulfate, sodium bicarbonate, and vancomycin.</p>
<b>Monitoring</b>	N/A
<b>Stability</b>	<p>Discard remaining solution in vial after reconstitution</p> <p>Use a new vial for each dose</p> <p>Vials are not designed for multidosing</p>
<b>Storage</b>	Powder - room temperature, protect from light, manufacturers expiry.
<b>Adverse Reactions</b>	<p>Hypersensitivity, development of resistance.</p> <p>Rare: rash, phlebitis, diarrhoea, blood dyscrasias.</p>
<b>Metabolism</b>	30-40% protein bound. Some hepatic metabolism to active metabolite desacetylcefotaxime. 60-80% parent and metabolite excreted in urine. Serum half life 4-6hours.
<b>Comments</b>	<p>*If treating meningitis, dose interval may need to be reduced when over 1 week of age irrespective of weight. Monitor CSF.</p> <p>Hospira: each 1g vial contains 48.2mg =2.1mmol of sodium</p> <p>Pfizer: each 1g vial contains 48 mg = 2.09 mmol of sodium</p>
<b>References</b>	<ol style="list-style-type: none"> <li>1. Drugs 1987 34(Suppl.2): 44-63</li> <li>2. Pediatr Infect Dis 1990, 9: 92-96</li> <li>3. Pediatr Infect Dis 1990, 9:111-121.</li> <li>4. Diagn Microbiol Infect Dis 1995, 22:111-7</li> <li>5. Neofax 1998, Eleventh Edition.</li> <li>6. Waikato Drug manual</li> <li>7. Medsafe data sheet <a href="http://www.medsafe.govt.nz">www.medsafe.govt.nz</a></li> <li>8. <a href="http://www.micromedexsolutions.com">www.micromedexsolutions.com</a></li> <li>9. NZFc <a href="http://www.nzf.org.nz">www.nzf.org.nz</a></li> <li>10. <a href="https://www.seslhd.health.nsw.gov.au/royal-hospital-for-women/australasian-neonatal-medicines-formulary-anmf">https://www.seslhd.health.nsw.gov.au/royal-hospital-for-women/australasian-neonatal-medicines-formulary-anmf</a></li> </ol>

<b>Updated By</b>	P Schmidt, B Robertshawe    October 2004 A Lynn, B Robertshawe        March 2009, April 2012 A Lynn, B Robertshawe        Nov 2012 (re-order profile, discard vial) A Lynn, B Robertshawe        Jan 2013 (dosing clarification) A Lynn, M Wallenstein, B Robertshawe    Sept 2020 (dosing) B Robertshawe, A Lynn    (Addition of Pfizer brand details)