CEFOTAXIME

<table>
<tr><td>Trade Name</td><td>DBL Cefotaxime for Injection (Pfizer)</td></tr>
<tr><td>Class</td><td>3rd generation cephalosporin antibiotic.</td></tr>
<tr><td>Mechanism of Action</td><td>Inhibits bacterial cell wall synthesis</td></tr>
<tr><td>Indications</td><td>Bacterial sepsis caused by sensitive organisms

Good for Gram negative bacilli, moderate for Strep, poor for Staph.

Ineffective against Listeria monocytogenes and Enterococci, therefore use in conjunction with amoxycillin.</td></tr>
<tr><td>Contraindications</td><td>Known allergy to cefotaxime. Caution in severe renal failure.</td></tr>
<tr><td>Supplied As</td><td>0.5g powder vial
1g powder vial</td></tr>
<tr><td>Dilution for
DBL Cefotaxime Sodium for Injection (HOSPIRA BRAND and PFIZER BRAND)</td><td>IV and IM:
IV - Use Water as the diluent
IM - Use 1% Lidocaine as the diluent

<table>
<tr><th>Vial</th><th>Diluent Added</th><th>Final Volume</th><th>Concentration</th></tr>
<tr><td>1g</td><td>3.6mL**</td><td>4mL</td><td>250mg/mL</td></tr>
</table>
** Displacement value of 1g = 0.4mL (Hospira & Pfizer brands)

Note: 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.</td></tr>
<tr><td>Dosage</td><td>50 mg/kg/dose</td></tr>
<tr><td>Interval</td><td>
<table>
<tr><th></th><th>Day 0-7</th><th>Day ≥8</th></tr>
<tr><td>Sepsis</td><td>12 hrly</td><td>8 hrly</td></tr>
<tr><td>Meningitis</td><td>8 hrly</td><td>6 hrly</td></tr>
</table>
</td></tr>
<tr><td>Administration</td><td>IV: Slow push
IM: 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</td></tr>
</table>

Compatible With	**Solutions:** dextrose 5%, dextrose 10%, lactated Ringer's solution, sodium chloride 0.9%, water for injection. **Y –site:** acyclovir, adrenaline, alprostadil, amikacin*, aminophylline, aminoacid solution, aztreonam, atropine, benzylpenicillin, caffeine citrate, calcium chloride, calcium gluconate, cimetidine, clindamycin, dexamethasone, dexmedetomidine, digoxin, dopamine, epoetin alfa, erythromycin, famotidine, fentanyl, furosemide, gentamicin*, heparin, hydrocortisone, imipenem -cliastatin, indomethacin, insulin, lidocaine 1%, lorazepam, magnesium sulfate, meropenem, metoclopramide, metronidazole, midazolam, milrinone, morphine, noradrenaline, octreotide, ondansetron, paracetamol, pancuronium, pethidine, phenylephrine, piperacillin potassium chloride, propofol, ondansetron, remifentanil, sodium acetate, thiamine, tobramycin*,TPN, vasopressin. *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.
Incompatible With	Alkaline solutions e.g. sodium bicarbonate **Y site:** amiodarone, amphotericin, azithromycin, co-trimoxazole, diazoxide, dobutamine, fluconazole, ganciclovir, phenobarbital, phentolamine, phenytoin, protamine sulfate, sodium bicarbonate, and vancomycin. Note: Compatibility of cefotaxime with SMOF lipid has not been tested and hence it is not possible to recommend giving cefotaxime in the same line as lipid solution
Monitoring	N/A
Stability	Discard remaining solution in vial after reconstitution Use a new vial for each dose Vials are not designed for multidosing
Storage	Powder - room temperature, protect from light, manufacturers expiry.
Adverse Reactions	Hypersensitivity, development of resistance. Rare: arrhythmia (if given rapidly via a central venous catheter, rash, phlebitis, diarrhoea, blood dyscrasias.
Metabolism	30-40% protein bound. Some hepatic metabolism to active metabolite desacetylcefotaxime. 60-80% parent and metabolite excreted in urine. Serum half life 4-6hours.
Comments	*If treating meningitis, dose interval may need to be reduced when over 1 week of age irrespective of weight. Monitor CSF. Hospira: each 1g vial contains 48.2mg =2.1mmol of sodium Pfizer: each 1g vial contains 48 mg = 2.09 mmol of sodium

References	1.Drugs 1987 34(Suppl.2): 44-63 2. Pediatr Infect Dis 1990, 9: 92-96 3. Pediatr Infect Dis 1990, 9:111-121. 4.Diagn Microbiol Infect Dis 1995, 22:111-7 5. Neofax 1998, Eleventh Edition. www.micomedexsolutions.com 6. Waikato Drug manual 7. Medsafe data sheet www.medsafe.govt.nz 8. www.micromedexsolutions.com 9. NZFc www.nzf.org.nz 10. . www.anmfonline.org
Updated By	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) A Lynn, B Robertshawe Oct 2023 (routine update)