CEFUROXIME

<table>
<tr><td>Trade Name</td><td>Cefuroxime Actavis® or Cefuroxime AFT®</td></tr>
<tr><td>Class</td><td>Antibiotic - second generation cephalosporin.</td></tr>
<tr><td>Mechanism of Action</td><td>Inhibition of bacterial cell wall synthesis through binding to essential proteins.
Resistant to most β-lactamases and has activity against a wide range of gram-positive and gram-negative organisms including H.influenzae.</td></tr>
<tr><td>Indications</td><td>Broad-spectrum antibiotic indicated for empiric treatment of infection or where sensitivity is established.
Biliary tract infection, meningitis, septicaemia, pneumonia, peritonitis, UTIs.
Infection prophylaxis or treatment after surgery.</td></tr>
<tr><td>Contraindications</td><td>Known hypersensitivity to cefuroxime or other cephalosporins.
Caution in patients with a known penicillin allergy.</td></tr>
<tr><td>Supplied As</td><td>750mg powder vials</td></tr>
<tr><td>Dilution</td><td>Cefuroxime Actavis
<table>
<tr><th>Vial</th><th>Water Added</th><th>Final Volume</th><th>Concentration</th></tr>
<tr><td>750mg</td><td>7mL*</td><td>7.5mL</td><td>100mg/mL</td></tr>
</table>
*Displacement value = 0.5mL

Cefuroxime AFT
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<tr><th>Vial</th><th>Water Added</th><th>Final Volume</th><th>Concentration</th></tr>
<tr><td>750mg</td><td>6.7mL*</td><td>7.5mL</td><td>100mg/mL</td></tr>
</table>
*Displacement value = 0.8mL
Reconstituted solution is pale yellow</td></tr>
<tr><td>Dosage</td><td>Prophylaxis: 25mg/kg/dose
Severe infection: 50mg/kg/dose</td></tr>
<tr><td>Interval</td><td>
<table>
<tr><th>Postnatal Age (days)</th><th>Interval (hourly)</th></tr>
<tr><td>0-7</td><td>12</td></tr>
<tr><td>8-14</td><td>8</td></tr>
<tr><td>>14</td><td>6</td></tr>
</table>
</td></tr>
<tr><td>Administration</td><td>IV: Slow push over 3-5 minutes
IM: Not recommended in infants <1 month of age</td></tr>
</table>

Compatible With	**Solution:** sodium chloride 0.9%,, dextrose 5%, dextrose 10%, dextrose saline, lactated ringers, potassium chloride **Y-site:** aciclovir, adrenaline, amikacin*, aminophylline, amphotericin liposomal, atropine, benzyl penicillin, calcium gluconate, cefazolin, cefotaxime, ceftazidime, clindamycin, dexmedetomidine, digoxin, dopamine, ephedrine, epoetin alfa, erythromycin, famotidine, flucloxacillin, furosemide, fentanyl, gentamicin*, glycopyrrolate, heparin, hydrocortisone, indometacin, insulin, lidocaine, meropenem, methylprednisolone, metronidazole, milrinone, morphine, noradrenaline, octreotide, pancuronium, paracetamol, piperacillin, phenylephrine, potassium chloride, propofol, pyridoxine, ranitidine, sodium acetate, thiamine, ticarcillin, tobramycin*, vasopressin,TPN *Some sources suggest theoretical interaction between cephalosporins and aminoglycosides if possible separate administration by one hour.
Incompatible With	Amoxicillin, calcium chloride, dexamethasone, diazoxide, dobutamine, doxapram, fluconazole, ganciclovir, magnesium sulphate, midazolam, phenobarbital, phenytoin, sodium bicarbonate, sulphamethoxazole-trimethoprim, vancomycin (variable). Note: Compatibility of cefuroxime 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	Room temperature for powder vials. Protect from light
Adverse Reactions	Thrombophlebitis may occur following IV injection. Hypersensitivity: rashes, pruritis and fever. Gastrointestinal: diarrhoea, nausea and vomiting. Neutropenia, susceptibility to fungal super infection Rarely: transient increase in LFTs.
Metabolism	33-50% protein bound. Cefuroxime does not undergo metabolism and 85-90% is excreted unchanged in urine (in first 24 hours). Half-life 1-6 hours depending on postnatal age
Comments	Modify dose in patients with severe renal impairment. Each 750mg vial of cefuroxime contains 1.8mmol of sodium.
References	1. Shann F., Drug Doses, 11th edition. 2001. 2. Medicines for Children,1999. 3. Paediatric Dosage Handbook, 8th edition. 2001-2002. 4. BNF March 2003, 45th edition. 5. Notes on Injectable Drugs, 4th edition. 6. Trissel LA, Handbook on Injectable Drugs, 12th Ed, 2003 7. www.medsafe.govt.nz 8. wttps://www.starship.org.nz/guidelines/cefuroxime-sodium/ww.nzf.org.nz 9. www.micromedexsolutions.com (online access to Trissell)

Updated By	A Lynn, B Robertshawe, F Robertson May 2009 (new pumps) A Lynn, B Robertshawe June 2012 (re-order profile), Nov 2012 (discard vial) A Lynn, M Wallenstein, B Robertshawe May 2021 brands A Lynn, B Robertshawe Oct 23 – routine review