Alert
The Antimicrobial Stewardship Team recommends this drug is listed under the following category: Restricted.

Indication
As part of therapy for suspected meningitis. Treatment of proven meningitis and sepsis caused by susceptible organisms (e.g., E.coli, H. influenzae, Klebsiella spp.).

Action
Bactericidal agent which inhibits cell wall synthesis in susceptible bacteria. Broad spectrum against gram positive and many gram negative organisms but not Pseudomonas species.

Drug Type
Cephalosporin antibiotic.

Trade Name
Cefotaxime Sandoz, DBL Cefotaxime Sodium

Presentation
Cefotaxime 500 mg vial
Cefotaxime 1 g vial

Dosage / Interval
50 mg/kg/dose. Dosing interval as per the table below

<table>
<thead>
<tr>
<th>Method</th>
<th>Corrected Gestational Age/Postmenstrual Age</th>
<th>Postnatal Age</th>
<th>Interval (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV injection</td>
<td>&lt; 30th weeks</td>
<td>0─28 days</td>
<td>12 hourly</td>
</tr>
<tr>
<td>IV injection</td>
<td>&lt; 30th weeks</td>
<td>29+ days</td>
<td>8 hourly</td>
</tr>
<tr>
<td>IV injection</td>
<td>30th─36th weeks</td>
<td>0─14 days</td>
<td>12 hourly</td>
</tr>
<tr>
<td>IV injection</td>
<td>30th─36th weeks</td>
<td>15+ days</td>
<td>8 hourly</td>
</tr>
<tr>
<td>IV injection</td>
<td>≥ 37th weeks</td>
<td>0─7 days</td>
<td>8 hourly</td>
</tr>
<tr>
<td>IV injection</td>
<td>≥ 37th weeks</td>
<td>8+ days</td>
<td>6 hourly</td>
</tr>
</tbody>
</table>

Route
IV
IM

Maximum Daily Dose

Preparation/Dilution
IV injection
Add 9.8 mL of water for injection to the 500 mg powder for reconstitution to make a 50 mg/mL solution OR
Add 9.6 mL of water for injection to the 1 g powder for reconstitution to make a 100 mg/mL solution.

IM injection
Add 2 mL of water for injection to the 500 mg powder for reconstitution to make a 230 mg/mL solution OR
Add 3 mL of water for injection to the 1 g powder for reconstitution to make a 300 mg/mL solution.

Administration
IV injection: Over 3─5 minutes.
IV infusion: Infuse over 15─30 minutes via syringe driver.
IM injection: Inject deep into the large muscle.

Monitoring
Not required. Cefotaxime has a high therapeutic index.

Contraindications
Hypersensitivity to cefotaxime or other cephalosporins or previous history of major allergic response to a penicillin.

Precautions
Liver and renal disease.
Sodium restriction – cefotaxime contains 48.2 mg/g (2.1 mmol/g) sodium.

Drug Interactions
Cefotaxime, as do many cephalosporins, may potentiate the renal toxicity of nephrotoxic drugs. Cefotaxime should not be combined with bacteriostatic antibiotics (e.g., tetracycline, erythromycin or chloramphenicol) since an antagonistic effect is possible.
### Adverse Reactions
Leucopenia, granulocytopenia, agranulocytosis.
Moderate and transient rise in liver enzymes and or bilirubin.
Hypersensitivity reactions.
Arrhythmias have occurred in patients who received rapid IV administration through a central venous catheter.
Fungal sepsis.
Bacterial resistance.

### Compatibility
**Fluids:** Glucose 5%, glucose 10%, Hartmann’s, sodium chloride 0.9%
**Y site:** Amino acid solutions, aciclovir, amifostine, aztreonam, bivalirudin, dexmedetomidine, granisetron, hydromorphone, magnesium sulfate, midazolam, morphine sulfate, pethidine, remifentanil, tigecycline.

### Incompatibility
**Fluids:** Alkaline solutions e.g., containing sodium bicarbonate.
**Y site:** Aminoglycosides – amikacin, gentamicin, tobramycin; azathioprine, azithromycin, caspofungin, chloramphenicol, chlorpromazine, dobutamine, dolasetron, filgrastim, fluconazole, ganciclovir, haloperidol lactate, hydralazine, labetalol, methylprednisolone sodium succinate, mycophenolate mofetil, pentamidine, phenobarbitone, phenolamine, promethazine, protamine, sodium bicarbonate, vecuronium.

### Stability
Reconstituted solution: Stable for 24 hours at 2 to 8 °C when reconstituted with water for injection. Protect from light.
Do not use if powder or solutions have darkened in colour.

### Storage
Store below 25°C
Protect from light.

### Special Comments
The main metabolite of cefotaxime is desacetylcefotaxime. This metabolite is active and is thought to enhance activity against Gram negative organisms. It has a longer half-life than cefotaxime.
The major route of clearance of both cefotaxime and desacetylcefotaxime is renal.

### Evidence summary
As per NeoMed Consensus Group. Refer to reference manual or electronic version.

### References
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