cefOTAXIME

**Indication**
- Treatment of susceptible gram-positive and gram-negative organisms (e.g. respiratory, urinary, intra-abdominal, skin, bone, and joint infections)\(^1\)
- Neonatal meningitis\(^1\)
- Congenital gonococcal conjunctivitis\(^2\)

**Presentation**
- Vial 500 mg | 1 g | 2 g
- 50 mg/kg (frequency according to gestation and day of life)\(^1\)

<table>
<thead>
<tr>
<th>Gestational age (weeks)</th>
<th>Day of life (days)</th>
<th>Frequency</th>
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<td>31+6 or less</td>
<td>0–7</td>
<td>every 12 hours</td>
</tr>
<tr>
<td></td>
<td>8 or more</td>
<td>every 8 hours</td>
</tr>
<tr>
<td>32+0 or more</td>
<td>0–7</td>
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<td></td>
<td>8 or more</td>
<td>every 6 hours</td>
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</table>

**Dosage**
- IV injection
  - Draw up the prescribed dose
  - IV injection over 3–5 minutes\(^3\)

**Preparation**
- 500 mg vial
  - Add 4.8 mL of water for injection
  - Draw up solution and make up to 10 mL total volume with water for injection\(^3\)
  - Concentration now equal to 50 mg/mL

- 1 g vial
  - Add 9.6 mL of water for injection\(^3\)
  - Draw up 5 mL of solution and make up to 10 mL total volume with water for injection
  - Concentration now equal to 50 mg/mL

- 2 g vial
  - Add 9 mL of water for injection\(^3\)
  - Draw up 2.5 mL of solution and make up to 10 mL total volume with water for injection
  - Concentration now equal to 50 mg/mL

**Administration**
- IV infusion
  - Prime the infusion line and reduce total syringe volume to the prescribed dose
  - IV infusion via syringe driver pump over 10–30 minutes
  - On completion, disconnect syringe and infusion line
  - Flush access port at same rate as infusion
### Special considerations
- If renal impairment, may need dosage adjustment.
- If longer duration, consider oral and topical antifungal prophylaxis.
- If co-prescribed with aminoglycosides administer separately (separate administration by 1 hour, separate injection site/line and flush well between medicines).
- IM route only if IV route not available.
- UAC route: discuss with neonatologist/paediatrician prior to use.

### Monitoring
- FBC periodically.

### Compatibility
- Fluids:
  - 5% glucose, 10% glucose, 0.9% sodium chloride.
- Y-site:
  - Aciclovir, dexamethasone, dopamine, furosemide (frusemide), heparin, insulin (regular), 0.5% lidocaine, magnesium sulphate, midazolam, morphine, octreotide, propofol, ranitidine, voriconazole.

### Incompatibility
- PN and fat emulsion: co-infusion with cefOTAXIME not recommended (evidence limited).
  - If unavoidable, seek pharmacist advice first, filter infusion and flush before and after.
- Fluids:
  - Alkaline solutions (e.g. containing sodium bicarbonate).

### Interactions
- Cephalosporins, penicillins and teicoplanin inactivated by aminoglycoside antibiotics.

### Stability
- Vial:
  - Store below 25 °C. Protect from light.
- Reconstituted solution:
  - Stable for 24 hours at 2–8 °C. Protect from light.
  - The solution is clear to pale yellow. Discard if darker than pale yellow.
**Side effects**
- Hypersensitivity reactions: rare in neonates. May present as erythema and rash (maculopapular rash, red purple plaques or urticarial type plaques\(^5,8\text{-}11\))
- Blood pathology: leucopoenia, granulocytopaenia\(^6\)
- Digestive: nausea, diarrhoea, colitis\(^5\)
- Other: candidiasis in babies less than 1000 g more common than with other antibiotics\(^1\)

**Actions**
- Broad spectrum third generation cephalosporin antibiotic

**Abbreviations**
- IM: intramuscular
- IV: intravenous
- PN: parenteral nutrition
- UAC: umbilical arterial catheter

**Keywords**
- Cefotaxime sodium
- Cephalosporin
- Gram-negative
- Gram-positive
- Infections
- Meningitis

The Queensland Clinical Guideline *Neonatal Medicines* is integral to and should be read in conjunction with this monograph. Refer to the disclaimer. Destroy all printed copies of this monograph after use.

**References**

**Document history**

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<td>NMedQ19.011-V1-R24</td>
<td>26/06/2019</td>
<td>26/06/2024</td>
<td>Endorsed by Queensland Neonatal Services Advisory Group (QNSAG)</td>
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