CEFOTAXIME

Read in conjunction with Disclaimer

Formulary: Restricted Requires Microbiologist review within 24 hours of initiation.	
Presentation	**Vial:** 1 g = **1000 mg**
Classification	Cephalosporin

Indication	• Infections due to susceptible gram negative organisms (excluding *Pseudomonas sp*.) including:
	  ○ Sepsis
	  ○ Meningitis
	• Antibiotic Prophylaxis: Ventriculoperitoneal (VP) Shunt.

Special Considerations	• Use with caution in patients with a history of penicillin allergy, especially IgE-mediated reactions. • Life threatening arrhythmias have occurred with rapid IV injection (when administered over 1 minute). Ensure IV injections are given over 3 to 5 minutes.
Monitoring	Monitor renal and hepatic function if long term therapy.
Compatibility	**Fluids:** Water for injection, sodium chloride 0.9%, glucose 5%, glucose 10%. Refer to KEMH Neonatal Medication Guideline: Y-Site IV Compatibility in Neonates.
Incompatibility	Intravenous aminoglycoside antibiotics, including gentamicin, are inactivated by intravenous cephalosporins. Ensure lines are adequately flushed between antibiotics.
Interactions	Cephalosporins can cause renal impairment; administration with other medications that also have this effect, particularly aminoglycosides, may increase risk of nephrotoxicity.
Adverse Effects	**Common:** Diarrhoea, nausea, abdominal pain, vomiting, pain and inflammation at injection site, rash, headache, dizziness, allergy, *Clostrioides difficile*-associated disease.
	Infrequent: Anaphylaxis, angioedema
	Rare: Life-threatening arrhythmias with rapid IV administration, neurotoxicity (e.g. confusion, seizures, encephalopathy) especially with high doses and/or renal impairment, blood dyscrasias (e.g. neutropenia), thrombocytopenia, bleeding, renal impairment, immunologic reactions.
	Third generation cephalosporins started by day 3 of life in extremely low birth weight infants (less than 1000 g) have been associated with a significantly increased risk of **candidiasis** compared with other antibiotics.
Storage & Stability	**Vial:** Store at room temperature, below 25^{o}C. Protect from light.

INTRAVENOUS

Presentation (for IV use)

Vial: 1 g = **1000 mg**

Available from CIVAS (KEMH): *100 mg/mL (IV push), 40 mg/mL (IV infusion)*

Available from PCS (PCH): *100 mg/mL*

Dosage

All indications:

Corrected Gestational Age	Postnatal Age	Dose	Frequency
Less than 32 weeks	Less than 7 days	50 mg/kg/dose	Every 12 hours
	7 days or older	50 mg/kg/dose	Every 8 hours
32 weeks and greater	Less than 7 days	50 mg/kg/dose	Every 12 hours
	7 days or older	50 mg/kg/dose	Every 6 hours

Dose Adjustment

Renal impairment: Dose reduction may be needed in renal impairment. Renal impairment increases the risk ofneurotoxicity (seizures or coma) with high doses. Risk of neutropenia may be increased.

Preparation

IV push – 100 mg/mL:

- Add 9.6 mL of compatible diluent to the cefotaxime 1 g vial.

Concentration = 1000 mg/10 mL = **100 mg/mL.**

IV infusion – 40 mg/mL:

Step 1 Reconstitution:

- Add 9.6 mL of compatible diluent to the cefotaxime 1 g vial.
- Concentration is 1000 mg/10 mL = 100 mg/mL.

Step 2 Dilution:

- Draw up 2 mL (200 mg) and make up to 5 mL total volume with compatible diluent.

Concentration = 200 mg/5 mL = **40 mg/mL.**

Administration

IV push:

- IV injection over 3 to 5 minutes.
- **Note:** Life threatening arrhythmias have occurred with rapid IV injection (when administered over 1 minute). Ensure IV injections are given over 3 to 5 minutes.

IV infusion:

- Infuse via syringe driver pump over 15 to 30 minutes.

INTRAMUSCULAR INJECTION

Presentation

Vial: 1g = **1000 mg**

Available from CIVAS (KEMH Only): *250 mg/ mL (IM injection)*

Dosage

Infection due to susceptible gram negative organisms:

Corrected Gestational Age	Postnatal Age	Dose	Frequency
Less than 32 weeks	Less than 7 days	50 mg/kg/dose	Every 12 hours
	7 days or older	50 mg/kg/dose	Every 8 hours
32 weeks and greater	Less than 7 days	50 mg/kg/dose	Every 12 hours
	7 days or older	50 mg/kg/dose	Every 6 hours

Preparation

IM injection – 250 mg/mL:

- Add 3.6 mL of water for injection to the cefotaxime 1g vial.

Concentration = 1000 mg/4 mL = **250 mg/mL.**

Administration

- Only use IM if IV not possible, IM can be painful.
- Draw up the prescribed dose.
- Inject as per the Medication Administration Guideline.

Related Policies, Procedures, and Guidelines

Clinical Practice Guidelines:

PCH ChAMP - Surgical Prophylaxis - Vascular, Cardiovascular, Neurosurgery

Pharmaceutical and Medicines Management Guidelines:

CAHS Neonatology – Medication Administration Guideline

References

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