South Australian Neonatal Medication Guidelines

cefOTAXIME

1g injection
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Note

This guideline provides advice of a general nature. This statewide guideline has been prepared to promote and facilitate standardisation and consistency of practice, using a multidisciplinary approach. The guideline is based on a review of published evidence and expert opinion.

Information in this statewide guideline is current at the time of publication.

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Health practitioners in the South Australian public health sector are expected to review specific details of each patient and professionally assess the applicability of the relevant guideline to that clinical situation.

If for good clinical reasons, a decision is made to depart from the quideline, the responsible clinician must document in the patient's medical record, the decision made, by whom, and detailed reasons for the departure from the guideline.

This statewide guideline does not address all the elements of clinical practice and assumes that the individual clinicians are responsible for discussing care with consumers in an environment that is culturally appropriate and which enables respectful confidential discussion. This includes:

- The use of interpreter services where necessary.
- Advising consumers of their choice and ensuring informed consent is obtained,
- Providing care within scope of practice, meeting all legislative requirements and maintaining standards of professional conduct, and
- Documenting all care in accordance with mandatory and local requirements

Dose and Indications

1g = 1000mg

Infection due to susceptible organisms

Intravenous, Intramuscular

50mg/kg/dose

Corrected Gestational Age (weeks) (Gestational age + Postnatal age)	Postnatal age (days)	Frequency (hours)	
<32	<7	every 12 hours	
-02	≥7	every 8 hours	
≥32	<7	every 12 hours	
202	≥7	every 6 hours	

Length of treatment should be guided by pathology and clinical picture.



cefOTAXIME 1g injection

Preparation and Administration

Intravenous

Vial Strength	Volume of Water for Injection to	Final Concentration of cefOTAXIME
(mg)	add (mL)	(mg/mL)
1000mg	9.6mL	100mg/mL

Shake vigorously to dissolve.

Dose	25mg	50mg	75mg	100mg	125mg	150mg
Volume	0.25mL	0.5mL	0.75mL	1mL	1.25mL	1.5mL

Administer intravenously over at least 3 minutes.

Intramuscular

Vial Strength	Volume of Water for Injection to	Final Concentration of cefOTAXIME
(mg)	add (mL)	(mg/mL)
1000mg	3.6mL	250mg/mL

Shake vigorously to dissolve.

Dose	25mg	50mg	75mg	100mg	125mg	150mg
Volume	0.1mL	0.2mL	0.3mL	0.4mL	0.5mL	0.6mL

Administer as an IM injection.

Compatible Fluids

Glucose 5%, glucose 10%, sodium chloride 0.9%, Hartmann's

Adverse Effects

Common

Diarrhoea, vomiting, pain and inflammation at injection site, rash, *Clostridium difficile*-associated disease, superinfection.

Infrequent

Neurotoxicity (seizures, encephalopathy) particularly with high doses and/or renal impairment, blood dyscrasias, (neutropenia related to dose and treatment duration, thrombocytopenia).

Anaphylaxis is not commonly seen in neonates.



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Practice Points

- > The use of third generation cephalosporins should be limited to the management of Gramnegative septicaemia and meningitis to minimise the emergence of resistant strains.
- > CefOTAXIME is used instead of cefTRIAXONE for gram-negative septicaemia in neonates because cefTRIAXONE can displace bilirubin, thus precipitating kernicterus.
- > Intravenous cephalosporins and penicillins can inactivate intravenous aminoglycoside antibiotics (e.g., gentamicin). Preferably separate doses by 1 hour. If it is not possible to separate doses, flush the line well with sodium chloride 0.9%, before and after giving each medication.
- > Protect from light during storage.
- > Can cause a false positive coombs test.

References

Leroux 2016, A population and developmental pharmacokinetic analysis to evaluate and optimize cefotaxime dosing regimen in neonates and young infants, Antimicrobial Agents and Chemotherapy, American Society for Microbiology, 60:11, 6626-6634.

Document Ownership & History

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If so, which policy (title)?

Approval Date	Version	Who approved New/Revised Version	Reason for Change
20/03/2023	V3.1	Domain Custodian, Clinical Governance, Safety and Quality	Dosing clarification
23/11/2022	V3	Domain Custodian, Clinical Governance, Safety and Quality	Formally reviewed in line with 5-year scheduled timeline for review.
04/2017	V2	SA Health Safety and Quality Strategic Governance Committee	Formally reviewed in line with 1-5 year scheduled timeline for review.
11/2012	V1	SA Maternal & Neonatal Clinical Network	Original SA Maternal & Neonatal Clinical Network approved version.

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