meropenem

500mg injection

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 guideline, 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

Infection due to susceptible organisms where meningitis is excluded

Intravenous Bolus

20mg/kg/dose

Corrected Age (weeks) [Gestational Age PLUS Postnatal Age]	Postnatal age (days)	Frequency (hours)
<32	≤ 14	every 12 hours
	>14	every 8 hours
32 to 44	≤ 7	every 12 hours
	> 7	every 8 hours

Length of treatment should be guided by pathology and clinical picture; however in proven sepsis treatment should continue for a minimum of 7 days.

Meningitis and Infections caused by Pseudomonas species

Intravenous Infusion

All ages 40mg/kg every 8 hours

Length of treatment should be guided by pathology and clinical picture; however in proven sepsis treatment should continue for a minimum of 7 days.

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Preparation and Administration

Intravenous Bolus

Vial Strength (mg)	Volume of Water for Injection to add (mL)	Final Concentration of meropenem (mg/mL)
500mg	9.6mL	50mg/mL

Dose	10mg	20mg	40mg	60mg	80mg
Volume	0.2mL	0.4mL	0.8mL	1.2mL	1.6mL

Administer as a push over at least 5 minutes

The reconstituted solution is stable for 24 hours stored under refrigeration – check with local policy about re-accessing vial for the same patient.

Intravenous Infusion

There are **TWO STEPS** to this process.

STEP ONE: Add 9.6mL of water for injection to the meropenem 500mg vial and shake gently to dissolve (total volume of 10mL). The resulting solution contains 50mg/mL meropenem.

STEP TWO: Further dilute 2mL of the 50mg/mL meropenem solution with 3mL of water for injection (total volume of 5mL). The resulting solution contains 20mg/mL meropenem

Dose	20mg	40mg	60mg	80mg	120mg	160mg
Volume	1mL	2mL	3mL	4mL	6mL	8mL

Infuse over 30 minutes.

Compatible Fluids

Glucose 5%, glucose 10%, glucose/sodium chloride solutions, sodium chloride 0.9%

Adverse Effects

Common

Diarrhoea, vomiting, rash, thrombocytosis, disturbances in liver function tests

Infrequent

eosinophilia

Rare

seizures, thrombocytopenia, neutropenia, agranulocytosis

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Monitoring

- Periodic monitoring of full blood count and liver function tests recommended.
- Assess intravenous site for signs of inflammation

Practice Points

> Reconstituted solutions range in colour from clear and colourless to pale yellow

> There is limited stability with meropenem and glucose 5%, glucose 10% or glucose/sodium chloride solutions, with loss of potency reported. If diluting or infusing through same line, the contact should be less than one hour.

> Meropenem is a beta-lactam antibiotic. Do not use if previous anaphylactic reaction to beta-lactam antibiotic has been reported.

Document Ownership & History

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