

Meropenem Intravenous for Adults

Who can administer

May be administered by registered competent doctor or nurse/midwife

Important information

- **Red-light antimicrobial:** Requires pre-authorisation from Microbiology or ID prior to use 24 hours/7 days a week (**Exception:** neutropenic sepsis in patients with a penicillin allergy with a delayed onset, non-severe reaction).
- Meropenem is a carbapenem. **Avoid if** history of immediate or severe hypersensitivity reaction to **penicillins or cephalosporins**
- See under 'Dose' for adjustments required in **renal impairment**
- Co-administration with **valproate** may result in a 60-100% decrease in valproic acid levels within two days- therefore concurrent use is not recommended

Available preparations

Meropenem 500mg vial

Meropenem 1 gram vial

Reconstitution

If for IV injection:

- **Water for injections**
- 10ml per 500mg vial
- 20ml per 1g vial

If preparing an infusion:

- Can prepare with infusion solution from the infusion bag using a transfer device, if desired, or reconstitute as above and add to an infusion bag

Infusion fluids

Sodium chloride 0.9% or Glucose 5%

Methods of intravenous administration

Can use either method of administration- choice depends on practicalities such as time available, fluid status of patient, etc.

Slow intravenous injection

- Administer over approximately 5 minutes
- Limited safety data for doses of 2g via this route

Intermittent intravenous infusion

- Add required dose to 100ml infusion fluid and administer over 15 to 30 minutes (ref 2)

- A 50ml infusion may be used for 1g dose only if required (eg fluid restriction) but the residual volume in the infusion line must be flushed through at the same rate to avoid significant underdosing
- **CPE infections under direction of Micro/ID**- extended infusion times of 3 hours may be used (ref 3)

Dose in adults

Usual dose

- Give 1g every eight hours

Bacterial meningitis and Cystic Fibrosis (ref 1)

- Give 2g every eight hours

Renal impairment (ref 1)

eGFR (ml/min/1.73m ²)	Dose	Frequency
26 to 50	500mg to 2g	Every twelve hours
10 to 25	500mg to 1g	Every twelve hours
less than 10	500mg to 1g	Every twenty-four hours
Renal replacement therapy	Consult pharmacy or specialist literature	

Monitoring

- Patients with pre-existing liver disorders should have LFTs monitored during treatment with meropenem.

Storage

Store below 25°C

References

Meropenem Fresenius Kabi Feb 21

1: [GUH Antimicrobial Guidelines 2021](#)

2: Medusa Injectable medicines guide downloaded 08/07/2022

3: GUH CPE guidelines 2018. See also [this link](#)

Therapeutic classification

Carbapenem antibiotic