Enoximone Intravenous for Adults

Who can administer

Administration RESTRICTED- see Appendix 1Â

Important information

- Unlicensed preparation
- Serum potassium levels should be corrected before and monitored throughout treatment with enoximone. Abnormal levels can predispose patients to arrhythmias
- See under 'Dose' for adjustments required in renal impairment'

Available preparations

Enoximone 100mg per 20ml ampoule (Perfan)

Reconstitution

Already in solution

- **Draw up using a 5 micron filter needle**
- **Dilute further prior to administration**

Infusion fluids

Sodium chloride 0.9% ONLY

Methods of intravenous administration

If a central venous access device is unavailable, administer via a large peripheral vein monitoring insertion site closely using a recognised phlebitis scoring tool [ref 1]

Slow intravenous injection

- Add required dose to equal volume of infusion fluid (to produce a 2.5mg/mL solution)Â
- Do not use more dilute solutions as crystal formation may occur

Intermittent intravenous infusion (using an electronically controlled infusion device)

- Add required dose to equal volume of infusion fluid (to produce a 2.5mg/mL solution)
- Administer as per 'Dose' overleaf

Continuous intravenous infusion (using an electronically controlled infusion device)

- Add 100mg (20mL) to 20mL infusion fluid [ref 1,2] i.e. final infusion contains 100mg in 40mL (2.5mg/mL solution)
- Do not use more dilute solutions as crystal formation may occur
- Rate adjusted according to response - see 'Dose'

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Dose in adults

Congestive Heart failure

Initial therapy

- Slow intravenous injection
  - Give 0.5 to 1 mg /**kg** at a rate not greater than 12.5mg per minute
  - Further doses of 0.5mg/**kg** may be given every 30 minutes until a satisfactory response is achieved or a total initial dose of 3mg/**kg** is achieved
  - **OR**
- **Intermittent infusion**
  - Give at a rate of 90**micrograms/kg/minute** administered over 10 to 30 minutes until the required haemodynamic response is achieved

Maintenance dose

- Slow intravenous injection
  - The initial dose (up to a max of 3mg/kg) may be repeated every three to six hours as required - adjusted according to the patient response
  - This should be administered at rate not greater than 12.5mg per minute
  - Normal maximum daily dose is 24mg/kg/day (i.e. 1,680mg/day in 70kg patient)
  - **OR**
- **Continuous infusion**
  - Give 5 - 20 micrograms/**kg**/minute following loading dose, according to haemodynamic response.
  - Normal maximum daily dose is 24mg/kg/day (i.e. 1,680mg/day in 70kg patient)

Renal impairment

- In patients with renal impairment, the dose or dosage frequency may need to be reduced

Monitoring

- Enoximone has a high pH and may cause venous irritation and tissue damage in cases of extravasation
- Monitor **potassium** levels: See under Important Information above
- **Platelet** count to be assessed before and during therapy.
- Severe **gastrointestinal symptoms** may occur; can be managed by reducing dose/temporarily interrupting the regime.
- **Liver function tests;** if clinically significant increases in hepatic enzymes therapy should be discontinued.
- Contains **ethanol** (10.4%); caution for use in those with a history of alcohol excess, pregnant or breast-feeding women and high-risk groups such as liver disease or epilepsy.
- Contains **propylene glycol** -monitor for adverse events e.g. hyperosmolality, lactic acidosis, renal dysfunction, cardiotoxicity, CNS disorders, respiratory depression, dyspnoea, liver dysfunction, haemolytic and haemoglobinuria.

Further information

- Occasionally, enoximone has produced 'furring of the lines'. In practice a dedicated line is recommended for its administration [(ref 1)]

Storage

Store below 25^{0}C

Do not freeze.

References

Summary of Product Characteristics Perfan July 1st 2022
1: Medusa NHS guide - downloaded June 2023
2: Standard Medication Concentrations for Continuous Infusions in Adult Critical Care. Intensive Care Society December 2020 version 4.1.Â

Therapeutic classification

Phosphodiesterase enzyme inhibitor