

Diazepam Intravenous for Adults (hameln brand ONLY): SECOND LINE use ONLY

Who can administer

Administration RESTRICTED - see [Appendix 1](#)

Important information

DO NOT CONFUSE WITH DIAZEPAM EMULSION for injection

- MUST NOT be used in neonates unless the risk of propylene glycol toxicity is determined to be acceptable by a consultant (see SPC)
- Propylene glycol toxicity is also a concern in patients maintained on continuous infusions especially those with renal or hepatic impairment
- This brand (diazepam solution) carries a greater risk of thrombophlebitis and venous thrombosis than Diazepam Emulsion, and should be reserved for use where Diazepam emulsion supply has been interrupted.

Available preparations

Diazepam Injection 10mg in 2ml (Hameln brand)

Reconstitution

Already in solution

Use a 5 micron filter needle when drawing up contents of ampoule

Infusion fluids

Glucose 5% or sodium chloride 0.9%

Methods of intravenous administration

Slow intravenous injection

- Do not dilute (as precipitation may occur) (see further information)
- Administer into a large vein, no faster than 5mg per minute (ref 2)

Continuous intravenous infusion (administer using an electronically controlled infusion device)

- For 10mg dose use 250ml infusion. For larger doses no more than 40mg per 500ml diluent may be added (ref 1,2)
- Rate is variable - see under 'Dose'
- **Incompatible with PVC.** Non-PVC infusion container (e.g. Braun Ecoflac or Baxter Viaflo are suitable) and a **low adsorption giving set** (e.g. Baxter Ref VMC 9606, or Braun 8700110SP) must be used. (available from pharmacy)
- **Fresh infusions must be made every 6 hours**

Dose in adults

IMPORTANT: Elderly and debilitated patients should be given doses at the **lower end of the dose ranges**, due to increased sensitivity to the drug

Status epilepticus

- Initial dose: 10 to 20mg as slow intravenous injection
- Repeat in thirty to sixty minutes as required (some references say the dose may be repeated after five minutes (ref 3) - this should be only done after calling for specialist intervention)
- Follow if necessary by an intravenous infusion of up to 3 mg/kg over 24 hours - see below for calculation

Tetanus (ref 1)

- Give 0.1 to 0.3 mg/kg by slow intravenous injection every one to four hours as required
- Alternatively, a continuous infusion of 3 to 10mg per kg over twenty four hours may be used
- **Example of calculations for continuous infusion**
 - Patient weighs 65kg
 - Dose is 2mg per kg in 24 hours = 130mg in 24 hours = 5.4mg per hour
 - A new infusion must be prepared every six hours - suggest preparing 40mg in 500ml diluent = 0.08mg per ml , = approx 67.5ml/hr
 - Discard BAG after six hours, the infusion must be replaced with a freshly prepared one

Renal impairment (ref 4)

- Start with small doses, titrate to response

Hepatic impairment

- Avoid if possible as may precipitate encephalopathy (ref 1)
- Contraindicated in severe liver disease

Chronic respiratory insufficiency

- Increased risk of respiratory depression
- Very slow intravenous administration is recommended
- Contraindicated in **severe** respiratory insufficiency

Monitoring

- It is advisable to keep the patient in a supine position, and monitor for at least one hour post dose (ref 5)
- Monitor cardiorespiratory function

Further information

- AVOID subcutaneous use
- When being given by intravenous injection, the solution cannot be diluted further. When being given by intravenous infusion, it can be added to infusion fluid. The apparent contradiction is because when it is diluted in a large volume the stability is protected. If diluted in a small volume of fluid, the drug will precipitate out.

Storage

- Store below 25Â° C
- Do not freeze

References

1: UK SPC 17 Jan 2022 (accessed 27th Apr 2022)

2: Injectable medicines information Medusa,Â downloaded 27th Apr 2022

3: Uptodate, downloaded Feb 28th 2019

4: Renal drug database- accessed online Feb 28th, 2019

5: Martindale, The complete Drug Reference accessed online via <http://www.medicinescomplete.com/> Feb 28th, 2019

Therapeutic classification

Benzodiazepine