Glucagon intravenous for adults

Who can administer

May be administered by registered competent doctor or nurse/midwife

Important information

- Usually given by the **subcutaneous or intramuscular** route for the treatment of **severe hypoglycaemia reactions**
- Please ensure **additional supplies are ordered by pharmacy** if large doses by infusion are being administered
- Protect the airway in case of vomiting
- Equivalencies: a 1mg dose is the same as 1 unit

Available preparations

Glucagen Hypokit 1mg

Reconstitution

- **Add 1.1mL** water for injection (provided) to the vial containing the powder to produce a **1mg/1mL solution**
- Shake gently until completely dissolved
- A syringe with a thinner needle and a finer graduation may be more suitable in diagnostic procedures

Infusion fluids

Glucose 5%

Methods of intravenous administration

Bolus intravenous injection [ref 2]

- Administer over one to two minutes
- Rapid injection may be associated with increased nausea and vomiting

Slow intravenous injection (when used as a diagnostic aid) [ref 1]

- Administer over at least 3 minutes
- Rapid injection may be associated with increased nausea and vomiting [ref 2,3]

Intermittent intravenous infusion (unlicensed) [ref 1]

- There is no recommended final volume/concentration for dilution. It is usually convenient to dilute in 100 or 250mL, but larger or smaller volumes can be used if necessary

Dose in adults

Severe hypoglycaemia

- Usually 1mg, given by the subcutaneous or intramuscular route

Diagnostic indication (inhibition of gastrointestinal motility)

- **Relaxation of stomach, duodenal bulb, duodenum and small bowel:** 0.2 to 0.5mg as intravenous injection
- **Relaxation of colon:** 0.5 to 0.75mg as intravenous injection
- Higher doses may be given for these indications if by the intramuscular route- see SPC

Severe hypotension, heart failure, cardiogenic shock (unlicensed) [ref 2]

- Give 5 to 10 mg as an IV bolus over 1 to 2 minutes
- If haemodynamic improvement is achieved with this dose, consider an infusion of 50-150 micrograms/kg/hour, (0.05 to 0.15mg/kg/hour), titrated to clinical response
- Limited evidence is available for the use of doses in excess of 10 mg/hour
- The reconstituted solution for IV infusion can be administered without further dilution, or may be diluted with glucose 5%

Renal or hepatic impairment

- No dosage adjustment is required

Storage

- Store in a refrigerator between 2 and 8^{0}C - for full shelf life of product
- May be stored at room temperature for up to 18 months (providing the expiry date is not exceeded)

References

SPC February 2023
1: Injectable medicines guide - Medusa, downloaded 07/01/2025
2: Toxbase, accessed online 11/02/2025

Therapeutic classification

Glycogenolytic hormone