Glyceryl trinitrate Intravenous for Adults

Who can administer

Administration RESTRICTED - see Appendix 1

Important information

- Monitoring requirements - see overleaf
- **Adsorbs on to PVC- see under Methods of intravenous administration and also Further information**
- For Y-site compatibility see below

Available preparations

Glyceryl trinitrate 50mg per 50mL vial (Hameln) - unlicensed

Nitro POHL Infus 10mg per 10mL ampoule (labelled nitroglycerin = glyceryl trinitrate) - unlicensed

Nitronal 50mg in 50mL vial - unlicensed

Reconstitution

Already in solution

Draw up using a 5 micron filter needle (ampoule)

Infusion fluids

Not required - product ready for infusion (but see also Further Information)

Methods of intravenous administration

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

- Administered as a continuous intravenous infusion as per dosage guidelines overleaf
- The drug should be prepared in a syringe pump (as syringe pumps are low adsorption), and should be given via a **low-adsorption giving set** (e.g Braun Original Perfusor -Leitung PE 8723060 or Vygon Lectro-spiral 1155.80)
- See under Further information below re other infusion volumes or infusion bags

Dose in adults

Usual dose range as follows:

Unresponsive congestive heart failure

- Dose range 0.6 to 6mg per hour with frequent monitoring of blood pressure and heart rate
- Commence at lower rate and increase cautiously in steps of 1.2 to 1.5mg per hour every 15 to 30 minutes until desired clinical response is achieved

Refractory unstable angina pectoris

- An initial infusion rate of 0.6 to 0.9mg per hour is recommended; this may be increased cautiously in increments of 0.3 to 0.6mg per hour, at approximately 30 minute intervals, until either relief of angina is achieved, headache prevents further increase in dose, or the mean arterial pressure falls by more than 20mmHg

Use in surgery for hypertension

- An initial infusion rate of 1.5mg per hour is recommended; this should be increased gradually in increments of 1.5mg per hour at five minute intervals, until the desired systolic arterial pressure is attained
- The usual dose is 0.6 to 12mg per hour
- In some cases doses of up to 24mg per hour have been required

Monitoring

- Monitor blood pressure and heart rate
- Also consider pulmonary capillary wedge pressure, cardiac output, and precordial electrocardiogram, depending on the clinical picture.

Further information

- If the product is to be given as a large volume infusion, e.g. final volume 500ml of either Sodium chloride 0.9% or Glucose 5%, it should be in a low adsorption infusion bottle (eg Braun Ecoflac or Baxter Viaflo), and it should be given via a low adsorption giving set (Baxter VMC9606, or Braun 8700110SP). If a low adsorption infusion bottle is not available, be aware that up to 50% drug loss may be encountered in other materials (e.g.PVC bags) and the dose may need to be adjusted accordingly.
- There are subtle differences in doses between the different manufacturers, for different indications - titrate the dose to effect

Storage

- Store below 25^{0}C

References

GTN 50mg/50mL - (Hameln) UK SPC 06/05/2021

Nitronal 1mg/1mL UK SPC 16/05/2023

Therapeutic classification

Nitrate

Search synonym GTN