Nicardipine Intravenous Infusion for Adults

Who can administer

Administration RESTRICTED - see Appendix 1

Important information

- Intravenous nicardipine should only be used to treat acute life-threatening hypertension, and post-operative hypertension
- Should only be **given in specialist unit or Intensive Care**
- Unlicensed drug

Available preparations

10mg in 10mL ampoule

Reconstitution

Not required- already in solution

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

Infusion fluids

Glucose 5% (preferred) [ref 1] or Sodium Chloride 0.9% [ref 2]

Methods of intravenous administration

Continuous intravenous infusion [ref 2] (administer using a electronically controlled infusion device)

- **Peripheral line**
  - Dilute to a concentration of 0.1 or 0.2mg/mL (i.e. 100 to 200microgram/mL)
  - Example: add 50mg nicardipine to 450mL infusion fluid (100micrograms/mL)
  - Example: add 50mg nicardipine to 200mL infusion fluid (200micrograms/mL)
  - If administration is via a peripheral line- change line every 12 hours to minimise the risk of venous irritation [ref 1]
- **Central line**
  - May be given undiluted via central line access device [ref 1]

Dose in adults

Life-threatening hypertension, Post-operative hypertension (Specialist use only)

- **Initially** 3 to 5mg/hour for fifteen minutes, increased in steps of 0.5 to 1mg every fifteen minutes, adjusted according to response. A rapid titration of 2.5mg/hour every five minutes may be considered [ref 2]
- Maximum rate 15mg/hour
- Reduce dose gradually when target blood pressure achieved
- **Maintenance** 2 to 4mg/hour
- Use with caution and at lower doses in patients with liver or kidney problems
- **Elderly patients**
  - Initially 1 to 5mg/hour, then adjusted in steps of 0.5mg/hour after 30 minutes, adjusted according to response
  - Maximum rate 15mg/hour
- **Renal or hepatic impairment**
  - Initially 1 to 5mg/hour, then adjusted in steps of 0.5mg/hour after 30 minutes, adjusted according to response
  - Maximum rate 15mg/hour

Monitoring

- Monitor blood pressure and heart rate at least every five minutes during the infusion and then until vital signs are stable, and for **at least 12 hours after the end of the infusion**
- Rapid or excessive reduction in systolic or diastolic blood pressure during IV therapy should be avoided
- Avoidance of hypotension is especially important in patients who have sustained an acute cerebral infarction or haemorrhage

Storage

Store below 25^{0}C

References

SPC (UK) 06/10/2021

1: Injectable medicines administration guide Medusa accessed online 10/04/2025

2: Martindale - accessed online 10/04/2025

Therapeutic classification

Calcium channel blocker