

Morphine Intravenous for Adults

Who can administer

Administration RESTRICTED - see [Appendix 1](#)

Important information

- In GUH, morphine is usually given by the subcutaneous route at ward level
- Morphine is used **intravenously** at ward level as Patient Controlled Analgesia (PCA)
- In GUH, it is generally in **Critical Care** areas that it is given by the intravenous route
- All morphine preparations stocked are controlled drugs
- For Y-site compatibility [see below](#)

Available preparations

| Drug | Strength | Stocked in |
|-------------------------------|---|--|
| Morphine Sulphate | 1mg per 1ml ampoule (Preservative free) (Martindale brand) | Preferred product when Morphine 1mg preservative-free is required |
| Morphine HYDROCHLORIDE | 1mg per 1ml ampoule (Preservative free) Martindale brand) | Gynae, Labour Ward and Major Theatres - only when preferred product (above) is not available |
| Morphine Sulphate | 1mg per 1ml ampoule (Preservative free) (South Devon Healthcare brand) | Neo-natal ICU ward only -when preferred product (above) is not available |
| Morphine Sulphate | 10mg per 1ml ampoule | All areas |
| Morphine Sulphate | 30mg per 1ml ampoule (for use in infusion only) | On request only in specific circumstances |
| Morphine Sulphate | 60mg per 1ml ampoule (for use in infusion only) | Critical care areas and other areas if PCA bags in short supply |
| Morphine Sulphate | 100mg in 100ml PCA bags | Critical care, surgical wards, X-ray |

Reconstitution

Already in solution

Draw up using a 5 micron filter needle (ampoules)

Infusion fluids

Sodium chloride 0.9%

Glucose 5%

Methods of intravenous administration

Slow intravenous injection

- **Dilute to a convenient volume:** suggest draw up 1ml (10mg) and dilute with 9ml Sodium chloride 0.9% to produce a 1mg per 1ml injection solution
- Administer required dose over 4 to 5 minutes ^(ref 1)
- **Maximum rate** of administration: 1 to 2mg per minute ^(ref 2)

Continuous intravenous infusion

- See 'Patient Controlled Analgesia (PCA) for Adult Patients' on Q-Pulse [CLN-NM-047](#)
- For critical care areas- dilute with infusion fluid as per CIS

Dose in adults

- **See individual policies**
- **Use 10mg/ml strength ampoules only for all the indications below (to reduce risk of overdose)**
- **The higher strength ampoules are used in the preparation of infusions**

Acute pain

- Give 5mg every four hours, adjusted according to response. Dose can be given more frequently during titration.
- **Elderly and frail patients:** Reduced dose recommended

Myocardial infarction ^(ref 2)

- Usual dose: give 5 to 10mg, followed by 5 to 10mg if required
- **Elderly or frail patients:** give 2.5 to 5mg, followed by 2.5 to 5mg if required

Acute pulmonary oedema ^(ref 2)

- Usual dose: Usual dose: give 5 to 10mg
- **Elderly or frail patients:** give 2.5 to 5mg

Renal impairment

- Avoid or use reduced dose in moderate to severe renal impairment (opioid effects increased, and prolonged and increased cerebral sensitivity occurs)

Hepatic impairment

- Use with caution as metabolised by the liver

Monitoring

- Monitor blood pressure, heart and respiratory rate ^(ref 1)
- Monitor the patient for one hour post dose if this is their first dose of morphine ^(ref 1)

Storage

Store in controlled drug cupboard below 25⁰C

References

1. Injectable Medicines Guide Medusa, downloaded 12/01/22
2. BNF- via Medicinescomplete 12/01/22

Therapeutic classification

Opioid analgesic