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) (Torbay or Lavoisier 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	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

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 [ref 1]
- 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

- Initially 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. Dose may be repeated if required
- **Elderly or frail patients**: give 2.5 to 5mg. Dose may be repeated 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 use or reduce dose; opioid effects increased and prolonged; increased cerebral sensitivity

Hepatic impairment

- Consider using a reduced dose

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 25^{0}C

References

1. Injectable Medicines Guide Medusa, downloaded 26/03/2025

2. BNF- via Medicinescomplete 26/03/2025

Therapeutic classification

Opioid analgesic