

# 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
<b>Morphine SULPHATE</b>	1mg per 1ml ampoule (Preservative free) (Torbay or Lavoisier brand)	<b>Preferred product</b> when Morphine 1mg preservative-free is required
<b>Morphine HYDROCHLORIDE</b>	1mg per 1ml ampoule (Preservative free) (Martindale brand)	Gynae, Labour Ward and Major Theatres - only when preferred product (above) is not available
<b>Morphine Sulphate</b>	10mg per 1ml ampoule	All areas
<b>Morphine Sulphate</b>	30mg per 1ml ampoule (for use in infusion only)	On request only in specific circumstances
<b>Morphine Sulphate</b>	60mg per 1ml ampoule (for use in infusion only)	Critical care areas and other areas if PCA bags in short supply
<b>Morphine Sulphate</b>	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 <sup>(ref 1)</sup>

- Administer required dose over 4 to 5 minutes <sup>(ref 1)</sup>
- **Maximum rate** of administration: 1 to 2mg per minute <sup>(ref 2)</sup>

### 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 <sup>(ref 2)</sup>

- 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 <sup>(ref 2)</sup>

- 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 <sup>(ref 1)</sup>
- Monitor the patient for one hour post dose if this is their first dose of morphine <sup>(ref 1)</sup>

## Storage

Store in controlled drug cupboard below 25°C

## References

1. Injectable Medicines Guide Medusa, downloaded 26/03/2025
2. BNF- via Medicinescomplete 26/03/2025

## Therapeutic classification

Opioid analgesic